Screening Form and

National Environmental Policy Act (NEPA)

Environmental Action Statement

For Conservation Benefit Agreements (CBA)

I. Project Information

A. Project name: Conservation Benefit Agreement for Introduction of Endangered Orangeblack Hawaiian Damselfly (*Megalagrion xanthomelas*) to a Conservation Area on the Island of Lānaʻi.

B. Affected species: This agreement covers the following species, hereafter collectively referred to as Covered Species.

Table 1. Covered Species.

ʻŌlelo Hawaiʻi	**Common Name**	**Scientific Name**	**Fed Status**	**State Status**	**Pop Est**
ʻAlae keʻokeʻo	Hawaiian coot	*Fulica alai*	Endangered	Endangered	≈2000
Aeʻo, kukulaeaeʻo	Hawaiian stilt	*Himantopus mexicanus knudseni*	Endangered; Final Rule to downlist to threatened is under review at HQ	Endangered	≈2000
Nalo meli maoli	Assimulans yellow-faced bee	*Hylaeus assimulans*	Endangered	Endangered	≥11 populations (Maui, Lānaʻi, Kahoʻolawe)
Pinapinao	Orangeblack Hawaiian damselfly	*Megalagrion xanthomelas*	Endangered	Endangered	≈34 populations (Oʻahu, Molokaʻi, Maui, and Hawaiʻi)

C. Project size (in acres): The Project includes construction of man-made water sources, creation of fenced habitat for the orangeblack Hawaiian damselfly, and stewardship of approximately 3 acres (ac) of degraded land.

D. Brief Project Description (including conservation elements of the plan):
The purpose of this Conservation Benefit Agreement (CBA) is to implement conservation measures for four Covered Species (orangeblack Hawaiian damselfly [*Megalagrion xanthomelas*], aeʻo [Hawaiian stilt, *Himantopus mexicanus knudseni*], ʻalae keʻokeʻo [Hawaiian coot, *Fulica alai*] and assimulans yellow-faced bee [*Hylaeus assimulans*] by (1) constructing 1–4 man-made water sources, (2) creating fenced habitat and implementing stewardship of a degraded 3 ac (1.2 ha) area, and (3) facilitating reintroduction of the orangblack Hawaiian damselfly species to Lānaʻi, where the species was once plentiful and is now considered extirpated. The United States Fish and Wildlife Service (FWS) proposes

to issue an Enhancement of Survival Permit under section 10(a)(1)(A) of the Endangered Species Act (ESA) to authorize take of these Covered Species by the Applicant in accordance with activities described in the CBA.

Beneficial habitat creation and management activities described in this CBA are likely to contribute to the recovery and conservation of the Covered Species by creating fenced habitat, supporting reintroduction of the orangeblack Hawaiian damselfly to Lānaʻi, controlling non-native species, and potentially expanding the range and distribution of the Covered Species within the Enrolled Property. The term of the proposed CBA is 50 years.

The Enrolled Property (Conservation Area and Other Areas) are owned by Lānaʻi Resorts, LLC, dba Pūlama Lānaʻi (Pūlama Lānaʻi) on the island of Lānaʻi in the State of Hawaiʻi. The Conservation Area is located in the Kalulu ahupuaʻa on the island of Lānaʻi. This 3 ac (2.1 ha) site is where habitat creation and management activities would take place. This area has been degraded by a succession of ranching and agricultural activities, including approximately 70 years of pineapple plantation operations, followed by 30 years of lying fallow. There are no current management activities ongoing in the area. In addition to habitat degradation from prior management and invasive plant species, ungulates are present, and may cause further habitat degradation. The project site is devoid of naturally occuring surface water. Lānaʻi Resorts, LLC, also owns the surrounding lands.

The orangeblack Hawaiian damselfly are mobile and may disperse under their own power from the Conservation Area to Other Areas also owned by Pūlama Lānaʻi, with water features that may attract dispersing damselflies, but are not ideal for damselfly persistence. These Other Areas include areas where commercial and industrial maintenance and management activities would be taking place, over which Conservation Benefit assurances would apply and incidental take would be authorized for orangeblack Hawaiian damselflies, should they naturally disperse there. These Other Areas also include ponds or pools at the resorts, wet habitats such as a hydroponic facilities, developments with occassional standing water (from storms or other incidents), wastewater treatment and reclamation facilities, and other areas where standing or flowing water currently exists or occurs in the future.

Baselines

Baseline conditions are defined in the CBA as the existing estimated population size and/or the extent and quality of habitat for the Covered Species on the Enrolled Property. All species have a zero baseline at the Conservation Area, and the orangeblack Hawaiian damselfly is presumed extirpated across the entire island (Polhemus et al., 2020; USFWS 2022ab).

Conservation Measures– Conservation Area

Conservation Measures associated with the Conservation Area include: (1) Ungulate control and construction of exclusion fencing; (2) pond construction and maintenance; (3) reintroduction of orangeblack Hawaiian damselflies; (4) restoration outplanting; (5) vegetation management; (6) predator control; and (7) water feature maintenance, removal, or modification.

Detailed descriptions of the proposed activites on the Enrolled Property and associated minimization and avoidance measures are provided in the CBA. Brief descriptions of the proposed actions follow.

Ungulate Control and Exclusion Fencing:
Exclusion fencing and ungulate control would prevent ungulates from eating outplated native plants and from using the restoration ponds as a water resource, which could pollute or damage Covered Species habitat. Fence construction would result in some noise from post and fencing installation, vehicle transportation of materials, and human activity associated with the fence building. Negligable soil disturbance can be expected during the installation of the fence posts around the 3 ac (2.1 ha) parcel. Detailed descriptions of the fence construction and ungulate removal actions in the Conservation Area and minimization and avoidance measures are provided in the CBA.

Pond Construction and Maintenance:
The construction and maintenance of artificial ponds are the keystone of this reintroduction of the damselflies to Lānaʻi. The applicant will construct 1–4 artificial ponds that are 32 to 753 square ft (3 to 70 square meters) in area; relatively shallow (up to about 2.6 ft [80 cm] deep); inoculated with an appropriate biome; and managed to support breeding habitat, shelter, and forage for orangeblack Hawaiian damselflies. A construction crew would prepare the site by using a bulldozer and front-loader equipment to level the site for installation of ponds. The crew would then excavate ponds and install liners in or install preformed ponds made of plastic, vinyl, fiberglass, or other material on level ground based on the manufacturer's instructions. The number of ponds built would be coordinated with the FWS and the Hawaii Department of Lands and Natural Resources DLNR and informed by adaptive management.

Pūlama Lānaʻi would supply water to the ponds from an existing water line near the Conservation Area which is potable and free of predatory fish. The waterline connection to the ponds would be permanent and use transmission standard operating procedures, backflow prevention, and materials in coordination with Lānaʻi Water Company staff. Plumbing at the ponds would include float valves to prevent accidental overflow. Input plumbing would be located near the top of the pond at the water surface to minimize turbidity caused by disturbance of accumulated sediment within the pond. Water quantity and quality would be monitored routinely and used to inform adaptive management as appropriate.

Reintroduction of Orangeblack Hawaiian Damselflies:
Once the pond environment is suitable, authorized Hawaii Department of Land and Natural Resources (DLNR), Division of Fish and Wildlife (DOFAW) staff would collect orangeblack Hawaiian damselfly eggs from vegetation in stable wild populations on Molokaʻi and transport them to Lānaʻi within 48 hours of collection. Stable populations from Oʻahu may also be used as a resource if genetic research supports that source for reintroduction to Lānaʻi.

Outplanting:
Pūlama Lānaʻi would grow or procure, and outplant all native plants with consideration to historical range, suitability of site conditions, genetics, and potential impacts of climate change. Outplantings may include ʻilima (*Sida fallax*) to increase the potential for yellow-faced bees to use the area. During habitat creation and outplanting in the Conservation Area, negligible soil disturbance would occur. Noise from human outplanting activites and vehicle transport of materials is expected to be negligible

Vegetation Management:

Pūlama Lānaʻi would use weed whips, chainsaws, forestry mulchers, and hand tools periodically to manage woody vegetation that may reduce enclosure efficacy over time or prevent regular maintenance of fences. Herbicides approved by the Environmental Protection Agency (EPA) may be used to control weed species within the enclosure under supervision of a certified pesticide applicator utilizing methods and timing to minimize any potential contamination of water reservoirs or unintended impacts to native organisms.

Predator Control:
Predators, including feral cats and rats, would be trapped and removed by Pūlama Lānaʻi personnel to reduce predation risk to waterbirds. Live cat traps would be used in strategic locations around the perimeter of the ungulate fence and monitored regularly in accordance with trapping best practices and standard operating procedures of the in the CBA. Lethal rat traps would protect waterbird nests and reduce damage to native plant species within the fenced Conservation Area. Rat traps would be checked, maintained, and rebaited per manufacturer recommendations. Trail cameras would be installed around the site to monitor predator presence and occupancy of the site by waterbirds.

Covered Activities in Other Areas

Orangeblack Hawaiian damselflies may disperse from the Conservation Area to Other Areas, especially those that have standing or flowing water. The probability of successful dispersal to Other Areas is low because wastewater treatment ponds and resort water features are chemically treated and support predatory fish. The probability of dispersal to areas of temporary standing water resulting from leaks is low because of water conservation measures to prevent such occurrences. Damselflies that do successfully disperse to these Other Areas could be subject to incidental take.

Other Covered Activities that may have potential to result in take of orangeblack Hawaiian damselfly should they disperse naturally to these areas include: (1) resort and park land water feature maintenance or removal; (2) wastewater treatment and storage facilities maintenance; (3) maintenance of residential and commercial stormwater and drainage features; and (4) water utility distribution system maintenance and repair. Conservation measures to avoid and minimize take of orangeblack Hawaiian damselflies in these Other Areas include measures to prevent and minimize water leaks and the subsequent creation of temporary habitat. These and other avoidance and minimization measures are described in the CBA.

Biological Monitoring at the Conservation Area

Following habitat creation and reintroduction, monitoring for orangeblack Hawaiian damselfly will occur weekly for the first twelve months, then quarterly. Monitoring and survey details and associated minimization and avoidance measures are provided in the CBA.

Monitoring of pond operation, water quality and presence of invasive species would take place quarterly. Monitoring of waterbirds and assimulans yellow-faced bee would be conducted seasonally under appropriate conditions. Surveys for all listed species, including migratory bird species, would occur prior to initiation of Covered Activites at the Conservation Area.

Evaluation and Adaptive Management
Adaptive management allows for mutually agreed-upon changes to the Agreement's conservation measures in response to changing conditions or new information. Should conservation measures not yield the desired results, management activities would be changed or alternative activities undertaken to achieve desired results. Decisions related to adaptive management would be based primarily on an evaluation of the compliance and biological monitoring results detailed in the annual reports and would be approved by the FWS and DLNR. See the CBA for more detail.

II. Does the CBA fit the following Department of the Interior and Fish and Wildlife Service categorical-exclusion criteria?

Yes, the CBA fits the categorical-exclusion criteria of The Department of the Interior and U.S. Fish and Wildlife Service.

A. Will the issuance, denial, suspension, and revocation of permits for activities involving fish, wildlife, or plants regulated under 50 CFR Chapter 1, Subsection B, cause no or negligible environmental disturbance? [516 DM 8.5(C)(1))]

The CBA may cause negligible environmental distrubance in the 3 ac (1.2 ha) Conservation Area during the installation of the small ponds, fence installation, removal of invasive species, outplanting of native species, maintenance of the Conservation Area and monitoring. Net positive, beneficial effects to the Covered Species are expected with the creation and maintenance of new habitat for all Covered Species and reintroduction of orangeblack Hawaiian damselfly described in the CBA. The incorporation of avoidance and minimization measures eliminate or reduce the likelihood that the Covered Activities would result in adverse effects to the Covered Species from vegetation management in the Conservation Area and ensures that any adverse effects are more than offset by the anticipated beneficial effects of Conservation Measures on the Covered Species. Furthermore, the CBA and Conservation Measures are expected to improve resiliency for the orangeblack Hawaiian damselfly species rangewide through reintroduction to the island of Lānaʻi where the damselfly historically occurred.

B. Are the effects of the CBA minor or negligible on all other components of the human environment, including environmental values and environmental resources (e.g., air quality, geology and soils, water quality and quantity, socio-economic, cultural

resources, recreation, visual resources, environmental justice, etc.)? [40 CFR 1508.1; 43 CFR 46.205]

Changes in air quality, geology and soils, water quality and quantity, socio-economic resources, cultural resources, recreation, visual resources, and other aspects that may effect environmental justice are expected to be negligible as a result of implementing the Agreement. Emissions from vehicles delivering materials to the site would have negligible contribution to air quality. Soil at the Conservation Area is disturbed from previous decades of pineapple farming, no streams or reservoirs are near the site that could be affected by a pond water over topping or leaking, and the amount of water used to fill and maintain the ponds are all negligible. No known recreation currently occurs at the site. The Enrolled Property includes nearly all of the island of Lānaʻi, therefore it is extremely unlikely that damselflies would disperse beyond the Enrolled Property and have an socio-economic impact on other property owners. The exclusion and removal of ungulates from the 3 ac Conservation Area is considered negligible to the existing number of ungulates available on the island. Air, soil, and visual quality are expected to improve as a result of outplanting native plants appropriate for the area. Visual resources may be expected to be improved/expanded in the form of orangeblack Hawaiian damselfly presence once again on the island of Lānaʻi. There are no known culturally sensitive resources at the proposed Conservation Area.

The FWS completed a review of the proposed permitting action under section 106 of the National Historic Preservation Act of 1966 to determine if any historic or cultural resources might be affected by issuance of the requested ITP or implementation of the associated CBA. A signed copy of the Zone Archaeologist's Section 106 determination that no historic or cultural resources would be affected is on file in the FWS's Pacific Islands Fish and Wildlife Office (USFWS 2023).

C. Would the incremental impacts of this CBA, considered together with the impacts of other past, present, and reasonably foreseeable future actions (regardless of what agency or person undertakes such other actions) *not* result, over time, in cumulative effects to the human environment (the natural and physical environment) which would be considered significant? [43 CFR 46.205]

No signficiant cumulative effects are expected to occur as a result of approving the Agreement, issuing the Permit, and implementing the Covered Activities under the Agreement. Management of the Conservation Area and reintroduction of the orangeblack Hawaiian damselfly would have negligable or no effect on the small area of Lanaʻi that is not part of the Enrolled Property. The Other Areas are owned by the applicant and, but for the habitat creation, management, monitoring, and avoidance and minimization activities proposed in the CBA, management would not be expected to change.

III. Do any of the exceptions to categorical exclusions (e.g., extraordinary circumstances) listed in 43 CFR 46.215 apply to thisCBA?

None of the exceptions to categorical exclusions apply to this CBA.

Would implementation of the CBA:

A. Have significant impacts on public health or safety?
No, the CBA would not impact public health or safety and would not affect air or water quality in adjacent communities. Fencing would prevent unauthorized access and dangers to the public from open water sources. Outreach and educational events would be guided.

B. Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (EO 11990); floodplains (EO 11988); national monuments; migratory birds; and other ecologically significant or critical areas.
No, the Conservation Area and surrounding lands are owned by the applicant. There are no historic or cultural resources, parks, recreation or refuge lands, wilderness areas, wild or scenic rivers, national or natural landmarks, sole or principle drinking water aquifers, prime farmlands, or national monuments in the Conservation Area. The project would not adversely affect wetlands, floodplains, or ecologically signficiant or critical areas. No adverse effects to these resources are anticipated from implementation of the CBA. No individuals or nests of birds protected by the Migratory Bird Treaty Act (MBTA) would be harmed.

- The Conservation Area is located in the Kalulu ahupuaʻa on the island of Lānaʻi. This 3 ac site has been historically degraded by a succession of ranching and agricultural activities, including approximately 70 years of pineapple plantation related operations, followed by 30 years of lying fallow. The project site is dominated by invasive species. In addition to habitat degradation from prior management and invasive species, ungulates are present.

- At the Conservation Area, the National Wetlands Inventory (NWI) depicts a 1.95 ac palustrine emergent seasonally flooded diked/impounded wetland based on aerial imagery captured in 1976. A wetland determination based on the USACE Delineation Manual (1987) and Hawai'i and Pacific Island regional supplement (2012) was conducted at the project site in January 2022 and found no indicators of hydrophytic vegetation, hydric soils, or wetland hydrology present, thus finding no wetland present. See wetland investigation summary report in Appendix G of the CBA.

- According to the Natural Resource Conservation Service (NRCS) Cooperative Soil Survey, the depth to water table is more than 80 inches at the enrolled lands. All water utilized in association with reintroduction efforts would be sourced from potable water reserves and contained within plastic vessels or liners. No interaction with groundwater is anticipated at site through withdrawal or infiltration. See NRCS soil report in Appendix E of the CBA.

- The Conservation Area is impounded by berms and any overland flow created by activities would be contained within the Conservation Area. Downstream of the bermed area is a historic agricultural area that is dominated by invasive plant species.

According to FEMA flood insurance rate maps (FIRM), no floodplain is present within the Enrolled Property.

- Species covered by MBTA would be included in surveys for listed species during implementation of the project. Any nests of these species would be avoided. No individuals or nests of birds protected by the MBTA would be harmed.

- The FWS completed a review (USFWS 2023) of the proposed action under section 106 of the National Historic Preservation Act of 1966 to determine if any historic or cultural resources might be affected by issuance of the requested permit or implementation of the associated CBA. A signed copy of the Zone Archaeologist's Section 106 determination that no historic or cultural resources would be affected is on file in the FWS's Pacific Islands Fish and Wildlife Office.

C. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA section 102(2)(E)].
No. Given the negligible impacts to all resources there is no scientific controversy over the environmental effects of implementing the CBA.

D. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?
No, the orangeblack Hawaiian damselfly was formerly recorded on Lānaʻi where it remained abundant through at least 1996. However, the species is now considered extirpated from Lānaʻi mainly because of the drying up of former water sources, draining and reconfiguration of the former ranch reservoir at Koele, and presence of Poeciliid topminnows and other predatory fish used to control mosquitoes being present in the wastewater sources and other water features. Reestablishment of pool resources free of predatory fish and introduction of the orangeblack Hawaiian damselfly in the Conservation Area would have largely beneficial effects for the species. Future establishment of the species may result in some natural dispersal of adults to water features that may be occupied by mosquito fish, resulting in take at those sites, however, the benefit provided by the creation of habitat and introduction of the orangeblack Hawaiian damselfly to the Conservation Area signficantly outweighs the risk to the orangeblack Hawaiian damselfly posed by the Other Areas with water features. Hawaiian stilt, Hawaiian coot, and assimulans yellow-faced bees are present on the island. The creation of predator-free habitat for foraging and nesting in the Conservation Area is beneficial to these species.

E. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?

No. Future actions would be reviewed on their own merits in meeting requirements under the ESA, its implementing regulations, and other laws applicable at the time. Implementation of the CBA meets the standards applied to all conservation benefit agreements and is not part of a decision for future actions.

F. Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects?
No, the proposed CBA is not related to other actions that would cumulatively cause signficant environmental effects.

G. Have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by the bureau?
No, properties listed or eligible for listing on the National Register of Historic Places do not occur on the Conservation Area and would not be affected. An analysis of potential effects to cultural resources concluded with a finding that the undertaking is not the type of activity that has the potential to cause effects on historic properties. Pursuant to 36 CFR § 800.3(a)(1), therefore FWS has no further obligations under Section 106.

H. Have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species or have significant impacts on designated Critical Habitat for these species?

No, the implementation of the CBA is expected to have a net conservation benefit to the four Covered Species. The conservation measures will create new habitat for the Covered Species where none currently exists. The benefits of creating and maintaining new habitat will be greater than any potential impacts, resulting to a net conservation benefit to all Covered Species. There is no proposed or designated critical habitat in the Conservation Area.

I. Violate a Federal law, or a State, local, or tribal law or requirement imposed for the protection of the environment?
No, implementation of the CBA under the authority of the Permit is contingent upon compliance with all applicable Federal, State, and local laws. The CBA would not conflict with any applicable Secretarial or Executive Orders.

J. Have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898)?
There would be no adverse impacts associated with the project to human populations, therefore, there would not be a disproportionately high and adverse effect on low income or minority populations.

K. Limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (Executive Order 13007)?
There are no sacred Indian sites on Lānaʻi or in the State of Hawaiʻi.

L. Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and EO 13112)?
No. Weed control and phytosanitation to prevent the threat, spread, and establishment of noxious species is a priority covered Appendix A of the CBA. The island of Lānaʻi also

maintains phytosanitation restrictions on plants and plant material brought in from outside of the island.

IV. DRAFT ENVIRONMENTAL ACTION STATEMENT

Within the spirit and intent of the Council on Environmental Quality's regulations for implementing the National Environmental Policy Act and other statues, orders, and policies that protect fish and wildlife resources, I have established the following administrative record.

Based on the information and analysis above, I determine that the proposed Enhancement of Survival Permit for Lānaʻi Resorts, LLC, dba Pūlama Lānaʻi, qualifies for a categorical exclusion, as defined in 40 CFR 1508.1. Furthermore, no extraordinary circumstances identified in 43 CFR 46.215 exist. Therefore, the FWS's permit action is categorically excluded from further NEPA review and documentation as provided by 40 CFR 1507.3; 43 CFR 46.205; 43 CFR 46.215; 516 DM 3; 516 DM 8.5; and 550 FW 3.3C. A more extensive NEPA process is unwarranted, and no further NEPA documentation will be made.

List of other supporting documents:

Conservation Benefit Agreement for Introduction of Endangered Orangeblack Damselfly (*Megalagrion xanthomelas*) to a Conservation Area on the Island of Lānaʻi.

Polhemus, D.A., W. Haines, and K. Bustamente. 2020. Field survey report: Lanai inland waters assessment, native damselfly baseline survey- Endangered Species Act. 36 pp.

[USFWS] U.S. Fish and Wildlife Service. 2022a. Recovery plan for 50 Hawaiian archipelago species. Portland, Oregon. xvi + 166 pp. + Appendices

[USFWS] U.S. Fish and Wildlife Service. 2022b. Species report for orangeblack Hawaiian damselfly (*Megalagrion xanthomelas*). Pacific Islands Fish and Wildlife Office, Pacific Islands Interior Region 12, Portland OR. 50 pp.

[USFWS] U.S. Fish and Wildlife Service. 2023. Section 106 compliance Memorandum for introduction of orangeblack Hawaiian damselfly to a conservation area on Lānaʻi. Signed 11 April 2023.

Signature Approval:

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Earl W. Campbell Date
Field Supervisor
Pacific Islands Fish and Wildlife Office