

Draft Compatibility Determination

Title

Draft Compatibility Determination for Environmental Education and Interpretation, Hanalei National Wildlife Refuge.

Refuge Use Category

Environmental Education and Interpretation

Refuge Use Type(s)

Environmental education (NWRS staff and authorized agents).

Interpretation (NWRS staff and authorized agents).

Refuge

Hanalei National Wildlife Refuge

Refuge Purpose(s) and Establishing and Acquisition Authority(ies)

Refuge Purpose(s):

“... to conserve (A) fish or wildlife which are listed as endangered species or threatened species...or (B) plants...” (Endangered Species Act of 1973, as amended [16 U.S.C. 1531-1544]))

Establishing and Acquisition Authority:

Endangered Species Conservation Act of 1969, as amended (16 U.S.C. 668aa).

National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System, otherwise known as Refuge System, is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (Pub. L. 105-57; 111 Stat. 1252).

Description of Use

Is this an existing use?

Yes. This Compatibility Determination (CD) replaces and expands upon the CD for Environmental Education General (1994) and Environmental Education Multitype (2003).

What is the use?

Environmental education (EE) includes on-refuge activities conducted by NWRS staff or authorized agents that use a planned process to foster awareness, knowledge, understanding, and appreciation in students about fish, wildlife, plants, ecology, natural sciences, and refuge management.

Interpretation includes on-refuge activities for refuge visitors conducted by NWRS staff or authorized agents that are designed to foster an understanding and appreciation for natural and cultural resources, and associated management.

Is the use a priority public use?

Yes

Where would the use be conducted?

The Hanalei Viewpoint (Viewpoint) site will be the primary area for on-site EE and interpretation for Hanalei NWR. Located just off Kūhio Highway, this 5-acre parcel has two viewing areas overlooking Hanalei Valley and includes parking for 25 cars, two buses, interpretive displays, vault toilets, seating, and native plantings that will provide students, residents, and visitors with opportunities to learn about the natural and cultural history of Hanalei Valley and Hanalei NWR.

EE and interpretation are also provided on the Refuge in the wetland units known as: ABC, Ducks Unlimited (DU), Spencer, and Kuna as well as demonstration taro (lo‘i kalo) units which have existing non-paved access. See attached maps (Figures 1 - 4).

When would the use be conducted?

The Viewpoint was specifically located away from breeding populations of native wetland bird species and will be available for EE and interpretation year-round during daylight hours. Availability of the wetland units will vary and must be coordinated with Refuge management in advance to avoid bird breeding and molting cycles in the different units. Nēnē (Hawaiian goose) and a‘eo (Hawaiian stilt) breed seasonally, however, breeding for the koloa maoli (Hawaiian duck), ‘alae ‘ula (Hawaiian moorhen), and ‘alae ke‘oke‘o (Hawaiian coot) peaks during their breeding season but can occur year-round (see chart below). Limited evening or early morning hours may be offered dependent on staff availability and deed restrictions.

How would the use be conducted?

It is anticipated that EE programs would be conducted at the Viewpoint twice per month, 24 school groups per year, for a potential of 600 students annually. Programs will be led by Refuge personnel or Refuge-authorized agents, utilizing thematic curriculum focused on species, habitats, places, uses, and resources within the refuge.

The EE programs held in the managed wetland units and lo‘i kalo are expected to serve up to 6 local school groups annually. EE is supplemented by interpretive signs and use of natural and temporary viewing blinds for wildlife observation, and wetland study activities. Temporary facilities such as pop-up shelters and viewing blinds, portable restrooms, and temporary ramps to aid with sample collection in wetlands may be used.

Interpretive programs held in the managed wetland units and lo‘i kalo consist of guided hikes of small groups (≤ 15 participants), with approximately 180 participants hosted annually. These programs occur primarily in conjunction with Friends of Kaua‘i Wildlife Refuges activities and/or during special events (National Wildlife Refuge Week, Migratory Bird Day, World Wetland Day). Guided hikes are developed thematically to relay information about the refuge purposes, programs, habitats, and management, as well as existing partnerships.

Why is this use being proposed or reevaluated?

This Compatibility Determination (CD) replaces and expands upon the CD for Environmental Education General (1994) and Environmental Education Multitype (2003). Additional sites for EE and Interpretation will now be available along ‘Ōhiki Road and at the new Hanalei Viewpoint.

Availability of Resources

The Refuge currently has adequate facilities, budget and staff to support the annual costs associated with the proposed EE and interpretation on the Refuge. Additional fees or permits are not required to participate in these activities.

Table 1. Costs to Administer and Manage EE and Interpretation

Category and Itemization	One-time Cost	Recurring Annual Expenses
Pop-up shelters /blinds	\$1,000	--
Portable restrooms	--	\$1,000
Staff time (LE/admin)	--	\$18,000
Maintenance	--	\$12,000
Biological Monitoring	--	\$2,200
Total one-time expenses	\$1,000	
Total recurring annual expenses		\$33,200

Anticipated Impacts of the Use

Potential impacts of a proposed use on the refuge's purpose(s) and the Refuge System mission

In addition to migratory birds and native flora and fauna, the Refuge supports the recovery of threatened and endangered Hawaiian waterbirds. Anticipated impacts to these species were reviewed during Section 7 consultation for the 2004 compatibility determination and found EE and interpretation to have no effect. The Service consulted with the State Historic Preservation Office and found there would be no adverse impact to cultural or historical resources (USFWS 2004). The endangered 'ōpe'ape'a (Hawaiian hoary bat) is nocturnal, active only from sunset to sunrise when the Refuge is closed, therefore daylight EE and Interpretation would have no effect.

There are no anticipated effects to air and water quality, geology and soils, floodplains, visitor use and experience, wilderness, socioeconomics, or refuge management and operations document. An Environmental Assessment was completed for the Viewpoint with a Finding of No Significant Impact (USFWS 2019). Expanding the scope of this new CD to include the Viewpoint site is not anticipated to add any additional impacts, rather it is expected that fewer visitors will travel on 'Ōhiki Road, thus improving current habitat conditions for endangered waterbirds and reducing the likelihood of vehicular strikes.

Any potential impacts to cultural resources will be mitigated by stipulations outlined within this compatibility determination and associated SUPs and by including clear maps depicting areas of authorized access.

Short-term impacts

Short term impacts to endangered waterbirds and other bird species may occur when visitors and birds are present at the same time. Nēnē, ae'o, and 'alae ke'oke'o appear to be tolerant of disturbance during nonbreeding periods. However, they are all more vulnerable to disturbance when breeding or in heavy molt. Koloa maoli and 'alae'ula are very wary and often flush or move quickly into dense cover when disturbed (Gutscher-Chutz 2011). Although individual birds may vacate the immediate area when disturbed, it is unlikely the birds would relocate and only be temporarily displaced due to the presence of suitable and abundant habitat in the vicinity.

Visitors could also cause trampling of native plants, erosion, and introduction or spread of exotic species, including invertebrates, plants, and pest species. All of these impacts would adversely affect native fish, wildlife, plants, and their habitats. Visitor snacks and lunches may result in litter or food for invasive rodents or insects and exacerbate current threats to ground nesting birds and chicks (e.g., invasive ants have been observed eating soft parts and killing seabird chicks nearby). Eating would only

be allowed in areas designated by the Service guide so this potential impact would be minimal. The degree of actual effects upon reproduction, survival of individuals, and diversity and abundance of native species (community health) would depend on specific circumstances and frequency of these uses in sensitive areas.

Long-term impacts

The long-term impacts to wildlife resources may include altered behavior, vigor, productivity, or death of individuals; altered population abundance, distribution, or demographics; and altered community species composition and interactions. Disturbance can cause nest desertion and affect survival of individual birds, their eggs, nestlings, or broods and alter behavior of nonbreeding waterbirds. Habituation to some types and levels (intensity and frequency) of human disturbance appears to vary among species, within species, between resident and migratory populations, and potentially between inexperienced and experienced breeders. Being an on-going permitted activity with no increase in activity being planned, changes in wildlife use patterns on the Refuge are not anticipated.

Endangered birds are struck and killed by vehicles on 'Ōhiki Road at a rate of about 1 endangered bird lost per month. By shifting the emphasis of EE and interpretation to the Viewpoint, a decrease in vehicles along 'Ōhiki Rd is expected. Minimization measures have been implemented to decrease vehicle strikes through increased signage, community public service announcements and increased staff presence at the Refuge. Any vehicles using 'Ōhiki Rd to attend a sanctioned education program or special event will be advised by staff to drive slowly through the Refuge. The Refuge will work with the County of Kaua'i to add or maintain signage and other features for 'Ōhiki Road, potentially including the following:

1. Speed limit (15 mph) and/or speed bumps or other speed-limiting devices.
2. A sign noting that 'Ōhiki Rd is a dead-end road.
3. A sign advising drivers that the road is single lane and advising against stopping or parking along the road.
4. Enhanced trail head and parking signs at 'Ōkolehao trail.
5. Increased signage delineating appropriate parking locations for wildlife observation along 'Ōhiki Rd.

Public Review and Comment

The draft compatibility determination will be available for public review and comment for 14 calendar days following the day the notice is published. The public will be advised of this comment opportunity through local news media, postings at local libraries, emails to adjacent landowners, state natural resource agencies, and permit holders. The State and Native Hawaiian Organizations have been provided notice of availability. A hard copy of this document will be posted at the Refuge Headquarters, 3500 Kilauea Rd, Kilauea, HI. It will be made available electronically on the refuge website at <https://www.fws.gov/refuge/Hanalei>. Please let us know if you need the documents in an alternative format. Concerns expressed during the public comment period will be addressed in the final compatibility determination. Comments may be sent by email to jennifer_waipaa@fws.gov or mailed to:

Kaua'i NWRC
PO Box 1128,
Kilauea HI 96754

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

1. EE and interpretation guides will not approach, feed, or disturb threatened or endangered species. Groups will be kept far enough away to avoid disturbing the birds (ideally 20+ feet). If the birds show any sign of agitation as a result of human presence, the group will quietly and slowly retreat until the birds no longer appear disturbed.
2. The Refuge will monitor the effects of visitor activities on wildlife and re-evaluate the program annually, with a larger discussion and revision of this document as needed.
3. Hanalei NWR wetland units will continue to be mostly closed to public use. Information about visitation to the Refuge, including maps clearly depicting open areas and Refuge entry point(s), would be posted on signs, in kiosks, online, and at other appropriate locations, and would be available at the Kaua'i National Wildlife Refuge Complex office.

4. EE and interpretive hiking groups are prohibited from straying outside the areas depicted on the attached maps and beyond the closed area signs. Travel within Refuge is limited to designated roads, parking lots and trails.
5. Teachers/educators would be required to contact the Refuge at (808) 828-1413 to schedule programs at least 45 days prior to a proposed visit. Visitor services staff will set up schedules at the beginning of the school year.
6. For activities occurring on the wetland/lowland portion of the Refuge, EE and interpretive hike group size (including students, teachers, parents, and others participating in the activity) would be limited to 15 individuals and would need to be guided by refuge personnel or refuge-authorized agents who are fully trained on the biology and behaviors of federally listed species and sensitive habitats, as well as safety.
7. The Refuge would remain open to EE and interpretation activities during daylight hours only, unless pre-approved in writing by Refuge Manager in advance of scheduled program.
8. To reduce harassment, disease, and/or death of native wildlife, or transport of exotic or pest plant parts, insects, parasites, other undesirable species, or diseases, visitors participating in EE or interpretive hikes will undertake biosecurity measures (i.e., boot brush station and sanitization protocols to reduce seed and other invasive pest movement).
9. Participants to programs are prohibited from bringing dogs, cats, or other pets with them to the Refuge. An exception is a service animal, as defined under Title II and Title III of the American Disabilities Act (1990).
10. Construction of new or maintaining existing structures on the Refuge is prohibited except with prior written approval of the Refuge Manager.
11. Visitors are prohibited from collecting and removing any archaeological or historic artifacts, abiotic or biological specimens or samples, or mementos from the Refuge.
12. Littering, dumping refuse, abandoning equipment, or materials, or otherwise discarding any items on the Refuge is prohibited.
13. Food and drinks will only be permitted in designated areas at the Viewpoint, and all trash must be cleaned up and packed out. Visitors are only allowed to bring water to the wetland units and are restricted to eating snacks and lunches off the Refuge, inside buildings, or inside buses.

No changes may be made to any of these stipulations without written approval of the Refuge Manager. In addition to the stipulations listed above, visitors are required to comply with Refuge System-related and other applicable laws, regulations, and policies. The Refuge reserves the right to add to or otherwise modify the stipulations listed above to ensure the continued compatibility of this use.

Justification

The stipulations outlined above would help ensure that the use is compatible on Hanalei National Wildlife Refuge. Environmental Education and Interpretation, as outlined in this compatibility determination, would not conflict with the national policy to maintain the biological diversity, integrity, and environmental health of the refuge. Based on available science and best professional judgement, the Service has determined that Environmental Education and Interpretation at Hanalei National Wildlife Refuge, in accordance with the stipulations provided here, would not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System mission or the purpose of the Hanalei National Wildlife Refuge. Appropriate and compatible Environmental Education and Interpretation at the Hanalei National Wildlife Refuge can help the public develop an appreciation for wetlands, wildlife, and habitats that the U.S. Fish and Wildlife Service works to protect.

Signature of Determination

Refuge Manager Signature and Date

Signature of Concurrence

Assistant Regional Director Signature and Date

Mandatory Reevaluation Date

2034

Literature Cited/References

Gutscher-Chutz, J.L. 2011. Relationships Among Aquatic Macroinvertebrates, Endangered Waterbirds, and Macrophytes in Taro Lo'i at Hanalei National Wildlife Refuge, Kaua'i, Hawai'i. Master's Thesis. South Dakota State University, SD.

USFWS. 2011. Recovery Plan for Hawaiian Waterbirds, Second Revision. Oct 28, 2011

USFWS. 2019. Hanalei Valley Viewpoint Final Environmental Assessment, Hanalei National Wildlife Refuge.

USFWS. 2021. Wetland Management and Waterbird Conservation Plan, Hanalei National Wildlife Refuge.

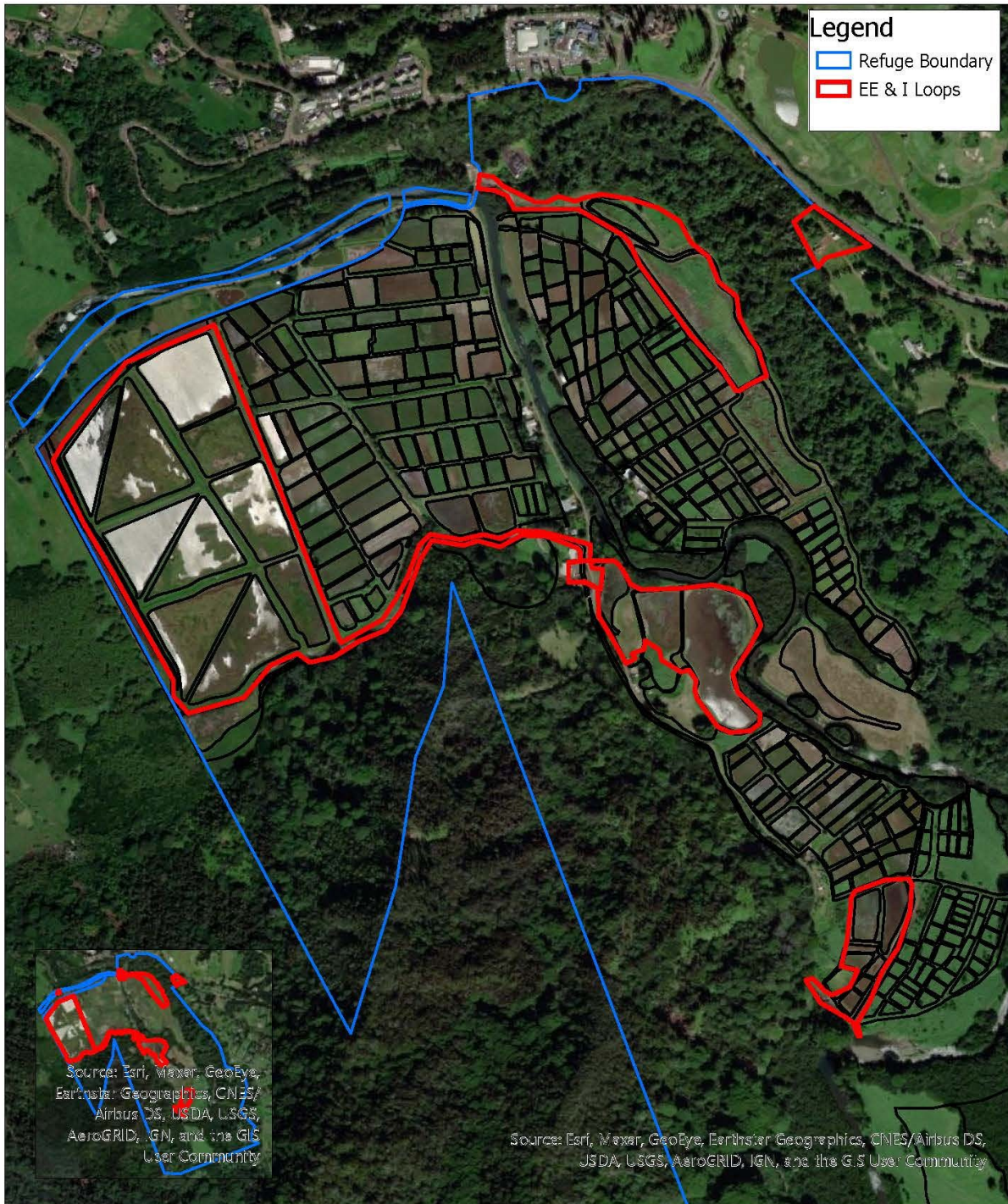
Figure(s)



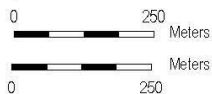
Figure 1. Hanalei Viewpoint Site Plan

Birds	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Nēnē	█								█			
Koloa	█					█						
‘Alae ke‘oke‘o		█								█		
‘Alae ‘ula		█							█			
A‘eo			█					█				
Waterfowl (Mig.)	█									█		
Shorebirds (Mig.)	█							█				

Figure 2 Breeding periods of focal species of threatened and endangered Hawaiian waterbirds



Produced Kauai National Wildlife Refuge Complex
 Kilauea, Hawaii
 Produced: July 12th, 2021
 Basemap: World Imagery
 File: Letter-Size_Portrait_layout.pptx



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Datum: NAD 83

Figure 3 Hanalei NWR EE and Interpretation map

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