

# Draft Compatibility Determination

## Title

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

## Refuge Use Category

Environmental Education and Interpretation

## Refuge Use Type(s)

Environmental education

Interpretation

## Refuge

Ridgefield National Wildlife Refuge

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

"... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." (Migratory Bird Conservation Act, as amended [16 U.S.C. § 715d])

"... to provide wintering habitat for dusky Canada goose and other waterfowl. Will also provide breeding and migration use and substantial public shooting in area. Estimated peak population: 125,000 ducks and 3,000 geese." (Migratory Bird Conservation Commission Memorandum Number 1, May 18, 1965.)

Migratory Bird Hunting and Conservation Stamp Act of 1934 (16 U.S.C. 718-718j)  
[Funding for primary acquisition]

## 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 reviews and replaces the 2010 compatibility determination for environmental education and interpretation, which was prepared

concurrently with the Comprehensive Conservation Plan for Ridgefield National Wildlife Refuge (USFWS 2010).

**What is the use?**

We propose to allow environmental education and interpretation on the Refuge to enhance and inform visitors experiences. Education and interpretation can be led by U.S. Fish and Wildlife Service (FWS staff), volunteers, partners or self-guided.

**Is the use a priority public use?**

Yes

**Where would the use be conducted?**

Environmental education and interpretation would occur in the Carty Unit and River S unit of the Refuge. On the Carty Unit, environmental education and interpretation would occur primarily on the trails (1-mile Oaks to Wetlands Trail loop and 1-mile Carty Lake trail) and the Cathlapotle Plankhouse. On the River S Unit, environmental education and interpretation would occur primarily on the 4-mile Auto Tour Route and the 1.1-mile walking-only Kiwa Trail. These activities are occurring in wetland habitats where waterfowl and migratory birds reside.

**When would the use be conducted?**

On the Carty Unit, these activities would be allowed year-round and would be largely self-guided. Interpretation and education programs led by staff and trained volunteers or partners would be available mostly during peak visitation seasons in the late spring, summer and early fall. Non-consumptive wildlife dependent recreation would be encouraged along the 1-mile Oaks to Wetlands Trail loop, year-round. The connecting 1-mile Carty Lake trail over Gee Creek and over the north tip of Carty Lake would link the City of Ridgefield, Port of Ridgefield, and Refuge for non-consumptive wildlife-dependent recreation May through September. From October 1st to April 30th the Carty Lake trail would be closed to reduce disturbance to wintering wildlife. The exception to this seasonal restriction is the Port entrance pavilion overlooking Carty Lake and 600-foot out and back trail that overlooks Lake River. Educational groups visiting the Cathlapotle Plankhouse and Carty Unit trail system would be led by indigenous partners, staff or trained volunteers mostly during the fall and spring educational trimesters as leads are available.

On the River S Unit, the Auto Tour Route would be open to non-consumptive wildlife dependent recreational activities year-round. From October 1 to April 30 visitors would be required remain in their vehicle along the Auto Tour Route to reduce disturbance to wintering wildlife. The exception to this seasonal restriction is the observation blind, restroom facilities, visitor contact station, entrance kiosk, and associated walkways. The remaining months of the year users are not restricted to

their vehicles but would be required to stay on the road surface of the Auto Tour Route. From May 1 to September 30 non-consumptive wildlife dependent recreation would also be facilitated along the 1.1-mile walking-only Kiwa Trail.

### How would the use be conducted?

Self-guided environmental education and interpretation on the Refuge is facilitated by interpretive materials available to visitors through interpretive panels, the Refuge Office/Visitor Contact Station, website and brochures.

Interpretation and education programs led by indigenous partners, staff, and trained volunteers would be available mostly during peak visitation seasons. Educational groups visiting the Cathlapotle Plankhouse and Carty Unit trail system would be led by indigenous partners, staff and trained volunteers as available, mostly during the fall and spring educational trimesters. Students would be evenly distributed in smaller groups in and around the Cathlapotle Plankhouse and immediately adjacent parts of the trail system with a participant total of no more than 100, which is equivalent to three classes plus teachers and chaperones. Guided walks on trails would be limited to groups of 20 individuals.

Pending funding, a Community Nature Center would be constructed near the current office's location and a small education shelter on the west side of the pedestrian bridge. Cumulatively, these improvements could increase visitation to the Carty Unit and heighten the need for resource impact monitoring related to public use. These facilities could also mitigate the impact of high visitation by bringing people to those spaces organized for and dedicated to visitor activities.

Off-trail activities would require a Special Use Permit from the Refuge. At times, users engaged in these activities would be accompanied by Refuge staff and/or trained volunteers (i.e. tours conducted during BirdFest). Collection of plant material and the removal of wildlife or their parts (except fish captured while engaged in recreational fishing; see Compatibility Determination – Fishing) would be prohibited unless the Refuge issues a Special Use Permit to the user(s). Special conditions would be put in place to reduce impacts of these activities.

Facilities such as refuge roads, trails, parking lots, signage and Refuge facilities are necessary for this use.

### Why is this use being proposed or reevaluated?

Non-consumptive wildlife-dependent recreation including environmental education and interpretation when compatible with refuge purposes are defined in the National Wildlife Refuge System Administration Act, as amended, as priority uses to be encouraged on national wildlife refuges. These activities can enhance the users' appreciation of the Refuge, the National Wildlife Refuge System, wildlife and wildlife habitat, and the human environment.

Environmental education and interpretation at Ridgefield Refuge was previously determined to be compatible (USFWS 2010). Environmental education and interpretation are being reevaluated due to changes on the refuge and to separate environmental education and interpretation and wildlife observation and photography into individual compatibility determinations. This compatibility determination also reevaluates an expired 2004 compatibility determination for environmental education and interpretation at the Cathlapotle Plankhouse drafted in accordance with the CCP (USFWS 2010; 603 FW 2.11 H.)

### **Availability of Resources**

The analysis of cost for administering and managing each use will only include the incremental increase above general operational costs that we can show as being directly caused by the proposed use. The Refuge has two employees dedicated to the Visitor Service program. Ability to implement environmental education and interpretative programs will be dependent on volunteer availability. Plankhouse educational programs will be provided upon request and costs are incurred in the form of staff salaries and time, support for the volunteer program, interpretive signage, facilities maintenance, brochures and other supplies and equipment, fuel and wear and tear on vehicles. The Refuge is a Recreation Fee site, as authorized by the Federal Lands Recreation Enhancement Act, with fees supporting visitor services, habitat restoration, and maintenance related to the visitor's experience. These funds help offset the expenses related to maintaining and operating a visitor services program.

### **Anticipated Impacts of the Use**

The effects and impacts of the proposed use to refuge resources, whether adverse or beneficial, are those that are reasonably foreseeable and have a reasonably close causal relationship to the proposed use. This Compatibility Determination includes the written analyses of the environmental consequences on a resource only when the impacts on that resource could be more than negligible and therefore considered an "affected resource." Soils, air, water, wilderness, cultural resources, and socioeconomic resources will not be more than negligibly impacted by the action and have been dismissed from further analyses.

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

Migratory birds and waterfowl may be impacted by the presence of humans. This temporary disturbance may impact migratory birds, waterfowl, and their habitat by causing behavioral changes or habitat alteration. However, these effects would be temporary and short-term. Most of the refuge is closed to the public providing

sanctuary to wildlife. Monitoring will prevent unacceptable or irreversible impacts to fish, wildlife, plants, and their habitats. The stipulations identified and monitoring will ensure the impact of environmental education and interpretation remains minimal on migratory birds, waterfowl, and their habitat.

### Short-term impacts

Impacts from these uses include the presence of humans disturbing wildlife, which typically results in a temporary displacement of individuals. Some species such as sandhill cranes will avoid the areas people frequent, such as the developed trails and the buildings, while others such as raccoons seem unaffected by or even drawn to the presence of humans.

Negative impacts have been shown to arise when migratory birds and humans are present in the same areas (Boyle and Samson 1985). Response of wildlife to human activities includes: departure from site, use of suboptimal habitat, altered behavior (Burger 1981, Morton et al. 1989, Klein 1993), and increase in energy expenditure (Morton et al. 1989, Belanger and Bedard 1990).

McNeil et al. (1992) found that many waterfowl species avoid disturbance by feeding at night instead of during the day. The location of recreational activities impacts species in different ways. Miller et al. (1998) found that nesting success was lower near recreational trails, where human activity was common, than at greater distances from the trails. A number of species have shown greater reactions when pedestrian use occurred off trail (Miller, 1998). In addition, Burger (1981) found that wading birds were extremely sensitive to disturbance in the northeastern US. Klein (1989) found migratory dabbling ducks to be the most sensitive to disturbance and migrant ducks to be more sensitive when they first arrived, in the late fall, than later in winter. She also found gulls and sandpipers to be apparently insensitive to human disturbance, with Burger (1981) finding the same to be true for various gull species.

Gutzwiller et al. (1997) found that singing behavior of some songbirds was altered by low levels of human intrusion. Pedestrian travel can impact normal behavioral activities, including feeding, reproductive, and social behavior. Studies have shown that ducks and shorebirds are sensitive to pedestrian activity (Burger 1981, 1986).

Some studies have indicated that individuals may become acclimated to the presence of humans. Resident waterbirds that are regularly exposed to human disturbance tend to be less sensitive than migrants, especially when migrants first arrive at a site (Klein 1993). In areas where human activity is common, birds tolerated closer approaches than in areas receiving less activity.

To help mitigate these impacts, the Refuge closes the trails (Carty Lake Trail and Kiwa Trail) from October 1 to April 30, which is the time when wintering waterfowl and sandhill cranes are present on the Refuge in the greatest numbers. Groups of 20 or more are asked to pre-register to help control the number of groups on the trail system at one time. Larger group visits and events expecting higher participation will

be organized to spread groups out over time and space to lessen impact on species using that area. Staff and volunteers will educate visitors on the potential impacts of human activities and how to limit their disturbance while visiting.

All other wildlife on the Refuge maybe be similarly impacted by the presence of people as described above. Public use in the form of wildlife observation, photography, interpretation, and education may affect, but are unlikely to adversely affect two Federally-listed species that occur on the Refuge, Columbian white-tailed deer (*Odocoileus virginianus leucurus*) (CWTD) and Nelson's checkermallow (*Sidalcea nelsoniana*). Within the River S and Bachelor Island Units, the Service has established populations of the Federally-listed threatened Nelson's checkermallow by planting individual seedlings in three separate pasture sites. Areas where this plant has been established are outside of the public use footprint. Therefore, the public is unlikely to encounter or adversely affect Nelson's checkermallow.

Visitors regularly encounter CWTD along public use roads and trails. Non-consumptive visitation (e.g. wildlife observation, photography, interpretation, and education) are restricted to established roads and trails. Visitors stopping to observe or photograph CWTD may induce a brief disturbance to deer. However, CWTD have every opportunity to retreat from visitors and may ultimately avoid trails/roads where disturbance is predictable. The Refuge has completed an intra-service consultation pursuant to the Section 7 of the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) regarding the proposed use and these species.

People can be vectors for invasive plants by moving seeds or other propagules from one area to another. Once established, invasive plants can out-compete native plants, thereby altering habitats and indirectly impacting wildlife. The threat of invasive plant establishment will always be an issue requiring annual monitoring and treatment when necessary.

To mitigate these impacts boot brushes and interpretive signage about invasive plants have been installed at each pedestrian access point. Volunteers will be trained to educate visitors, and interpretive materials about invasive species will be available as part of regular programming on and off site. Refuge staff will work at eradicating invasive plants with the help of a robust volunteer program.

Other impacts may include the deposition of litter and erosion caused by the damage to vegetation from trampling. These have not been a significant problem at the current level of use.

### Long-term impacts

Providing and maintaining access points indirectly impacts wildlife by creating barriers to movement through vegetation removal and management, and abrupt edge creation that may lead to increased predation (Ratti and Reese 1988). Trail edges may concentrate prey species and may be used by predators as travel corridors.

Implementation of environmental education and interpretation programs and the

creation of interpretive materials would take staff time and resources. Staff time and additional resources would also be used to maintain facilities such as trails, roads, signs, and structures.

### **Public Review and Comment**

The draft compatibility determination will be available for public review and comment for 14 days. The public will be made aware of this comment opportunity through our social media outlets and letters to potentially interested people such as neighbors and partner agencies. A hard copy of this document will be posted at the Refuge Headquarters (28908 NW Main Avenue, Ridgefield WA 98642). It will be made available electronically on the refuge website: [www.fws.gov/refuge/ridgefield/](http://www.fws.gov/refuge/ridgefield/). 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

## Determination

Is the use compatible?

Yes

### Stipulations Necessary to Ensure Compatibility

1. Activities associated with these proposed uses are restricted to portions of the Carty Unit that are open to the general public during daylight hours.
2. Adherence to seasonal use restrictions to reduce disturbance to wintering waterfowl and other wildlife.
3. Camping, overnight use, and fires are prohibited.
4. Littering is prohibited.
5. Collection of plants and animals is prohibited unless a Special Use Permit is obtained from the Refuge (except fish captured while engaged in recreational fishing).
6. The Refuge will require advance reservations for groups over 20 and/or in need of staff and volunteer participation to avoid conflicts with other groups and management activities.
7. The Refuge will provide signs, pamphlets, and verbal instructions from Refuge staff and volunteers will promote appropriate use of trails, blinds, and platforms to minimize wildlife and habitat disturbance. These materials will clearly state pertinent Refuge-specific regulations.
8. The Refuge will periodically monitor and evaluate sites and programs to determine if objectives are being met and the resource is not being degraded.
9. Where it is determined necessary, native trees and shrubs will be planted to create visual screening along trails and at observation points to reduce disturbance to wildlife.
10. The Refuge reserves the option to enact 'Emergency Closures' of public use roads, trails, and facilities in response to inclement weather, public safety, lapses in appropriations, hazards, repairs, maintenance, and resource concerns. In example, the Kiwa Trail remained closed until early August in 2020 and 2021 due to nesting attempts of sandhill cranes, a State endangered species, along the trail.

## Justification



The stipulations outlined above would help ensure that the use is compatible at Ridgefield 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 the environmental education and interpretation at Ridgefield 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 Ridgefield National Wildlife Refuge. Rather, appropriate and compatible environmental education and interpretation would allow the public to develop an appreciation for wildlife and wild lands.

## **Signature of Determination**

Refuge Manager Signature and Date

## **Signature of Concurrence**

Assistant Regional Director Signature and Date

## **Mandatory Reevaluation Date**

2038

## **Literature Cited/References**

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