

Compatibility Determination for Environmental Education, Interpretation, Wildlife Observation, and Photography on Julia Butler Hansen Refuge

Use: Environmental Education, Interpretation, Wildlife Observation, and Photography

Refuge Name: Julia Butler Hansen Refuge for the Columbian White-tailed Deer

Location: Wahkiakum County, Washington and Columbia and Clatsop County, Oregon

Date Established: 1971

Establishing and Acquisition Authorities

- Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1544)
- Refuge Recreation Act (16 U.S.C. 460k-460k-4), as amended
- Fish and Wildlife Act of 1956 (16 U.S.C. 742a-742j, not including 742d-1)
- Estimated Land Acquisition under the (P.L. 88-578) Land and Water Conservation Fund Act of 1965
- Final Environmental Statement, Proposed Additions to and Operation of the Columbian White-tailed Deer National Wildlife Refuge Oregon and Washington, May 10, 1973
- Draft Environmental Assessment, Proposed Additions to Julia Butler Hansen Refuge for the Columbia White-tailed Deer, Clatsop and Columbia Counties, Oregon, December 1990
- Categorical Exclusion for the Willamette Industries Addition October 1998

Refuge Purpose(s)

The purposes for the Julia Butler Hansen (JBH) Refuge for the Columbian White-tailed Deer (Refuge) have been identified in legal documentation establishing and adding refuge lands. Because the Refuge was originally established for the preservation and management of the endangered Columbian white-tailed deer (CWTD), this purpose represents the highest priority for refuge management and includes purposes specified as follows:

“...to conserve (A) fish or wildlife which are listed as endangered species or threatened species or (B) plants...” 16 U.S.C. § 1534 (Endangered Species Act of 1973)

“...suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species...” 16 U.S.C. § 460k-1

“...the Secretary...may accept and use...real...property. Such acceptance may be accomplished under the terms and conditions of restrictive covenants imposed by donors” 16 U.S.C. 460k-2 (Refuge Recreation Act (16 U.S.C. § 460k-460k-4), as amended)

“...for the development, advancement, management, conservation, and protection of fish and wildlife resources...” 16 U.S.C. § 742f(a)(4) “... for the benefit of the United States Fish and Wildlife Service, in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude ...” 16 U.S.C. § 742f(b)(1) (Fish and Wildlife Act of 1956)

National Wildlife Refuge System Mission

The mission of the National Wildlife 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” (National Wildlife Refuge System Administration Act of 1966, as amended [16 U.S.C. § 668dd-668ee]).

Description of Uses

This compatibility determination amends the determination (USFWS 2010a) included in the Comprehensive Conservation Plan/Environmental Impact Statement (CCP/EIS) (USFWS 2010b) which examines existing and future non-consumptive wildlife-dependent recreational uses on JBH Refuge. Additional information about existing uses and future uses is described in Chapter 5 of the CCP/EIS.

After completion of the CCP/EIS, the Steamboat Slough dike along the Columbia River was found to be in a state of failure. The U.S Army Corps of Engineers (ACOE) and the U.S. Fish and Wildlife Service prepared an Environmental Assessment for the restoration of Steamboat Slough, including construction of a 4,900 foot long setback levee, breaching of the Steamboat Slough dike in two places, and restoration of approximately 70 acres of tidally influenced wetlands (ACOE and USFWS 2013). As a result of the dike breaching, portions of the County owned road on the top of the Steamboat Slough dike are no longer accessible. A new trail (White-tail Trail) located on the new setback levee will be open to the public for walking and bicycling, and the estuary will be open to non-motorized boats.

Existing Use and Facilities:

JBH Refuge is a popular destination for local visitors as well as tourists from outside the area. It is estimated the Refuge has 29,000 visitor-use days each year. The majority of visitation to the Refuge occurs during the summer months and during the hunting seasons. All public use areas managed by the Refuge are open dawn to dusk.

Environmental education and interpretation consist of those activities which seek to increase the public’s knowledge and understanding of wildlife and contribute to the conservation of such wildlife. Many members of the public are not familiar with National Wildlife Refuges and confuse them with other Federal land management systems such as National Parks, or with State Parks. Providing information through educational programs, written materials, and interpretive panels helps to build an understanding and appreciation of the unique purposes and activities of National Wildlife Refuges. Providing information regarding the mission of the Service and the

purposes of the Refuge, along with specific resource information, to refuge visitors may alleviate potential negative impacts on wildlife through education.

Interpretation and environmental education activities generally occur on the Mainland Unit of the Refuge. The headquarters facility and wildlife viewing site adjacent to Highway 4 are the key areas for the public to learn about the Refuge. The headquarters visitor center area is open Monday to Friday, 8am to 4pm except Federal holidays and provides refuge brochures with regulations, maps, and orientation materials. Interpretive panels and the viewing platform at the headquarters are available seven days per week, from dawn until dusk. Restroom facilities are available at the headquarters as well. The wildlife viewing site adjacent to Highway 4 provides interpretive panels and an observation blind for the general public.

Wildlife Observation is probably the most popular activity on the Refuge. The Mainland Unit is partially surrounded by county and state roads (Highway 4, Steamboat Slough Road and Brooks Slough Road) which serve as an unofficial auto tour route for the Refuge. Visitors drive, walk, or bicycle along the roads and stop to observe wildlife. The refuge headquarters viewing platform provides a good opportunity to view/photograph wildlife and has an excellent interpretive display. There is a spotting scope installed on the viewing deck at the headquarters that visitors can use to view adjacent habitats and wildlife characteristic of the Refuge.

The Refuge's Mainland Unit currently has two trails, the 2.5-mile Center Road Trail and the 0.9-mile White-tail Trail. The Center Road Trail bisects the Mainland Unit, is open to walking only, and is closed much of the year (October 1 through May 31) to limit disturbance to CWTD and migratory birds. The White-tail Trail is on top of the setback levee built in 2013-2014 in the southwest portion of the Mainland Unit and will be open year round to walking and biking. This trail connects county and state roads to form a ten-mile public walking/biking loop around the Refuge. In addition to public walking/biking access, Wahkiakum County may intermittently use the setback levee for emergency vehicles in the event of flooding on state Highway 4. Both the Center Road Trail and White-tail Trail are closed to pets, with the exception of service animals.

In the lower Columbia River estuary, refuge visitors travel by either motorized or non-motorized boat for wildlife viewing. Around the Mainland Unit, visitors in boats view wildlife from the Columbia and Elochoman Rivers. Visitors will also be able to use non-motorized watercraft from the Columbia River to access channels within the 70-acre tidally influenced wetland (Steamboat Slough Estuary) created by breaching the Steamboat Slough dike in 2014. Only one island, Tenasillahe, has a 6.6-mile perimeter dike road allowing visitors to walk around the periphery of the island unit. Dense vegetation on many of the islands limits observation to the shorelines and accessible slough banks.

Wildlife Photography is a popular activity which occurs year round on the Refuge. Visitors drive around portions of the Mainland Unit of the Refuge using their vehicles as blinds to take advantage of photographic opportunities. Visitors also use the walking trails described above for wildlife photography. Other refuge units, including Crims Island, Wallace Island, and Tenasillahe Island, provide more limited photographic opportunities because visitors must use boats to access these Columbia River Islands.

Changes to Facilities under the CCP:

The CCP/EIS (USFWS 2010b) describes the following new or enhanced facilities to support wildlife-dependent recreational use. Funding will be sought to construct these facilities.

- The Refuge will maintain and enhance the interpretive area and wildlife viewing site located along State Highway 4, by increasing interpretive messages about the Refuge and Refuge System with new displays. The viewing site currently lacks adequate interpretive displays and updated versions would greatly improve the opportunity for the public to learn about and understand the Refuge's purposes and resources, as well as the mission of the Refuge System.
- Development, maintenance and improvements to auto pull-outs for wildlife observation on Steamboat Slough Road will provide the public increased viewing and educational opportunities of important refuge habitat types. The addition of mile markers at quarter-mile intervals on the informal auto tour route and existing and proposed trails will assist birdwatchers with posting their observation data.
- The installation of spotting scopes at the wildlife viewing site on State Highway 4 and the Tenasillahe Island Overlook on Steamboat Slough Road will allow visitors the opportunity to view adjacent habitats and wildlife characteristic of the Refuge, much like at the headquarters viewing deck. Interpretive panels and maps at the Tenasillahe Island Overlook will facilitate the understanding of the concept of refuge management and island habitats.
- Development of an alternative to the Center Road Trail, by working with the county to develop the 2.7-mile County-maintained Brooks Slough Road as an access point for an all-season hiking and cycling route, will allow expanded opportunities for visitors to observe/photograph wildlife while limiting disturbance to CWTD. As part of this effort, 0.3 miles of connecting trail will be built on a refuge levee. A second alternative to the Center Road Trail, an approximately 0.8-mile walking nature trail (Indian Jack Slough Trail) extending from refuge headquarters southwest along Indian Jack Slough, will enhance visitor experiences and knowledge about the habitat and resources characteristic of the Refuge. Once the Indian Jack Slough Trail and connector to the Brooks Slough Road are built, the Center Road Trail will be closed.

Availability of Resources

Additional funding for operational costs will be needed to fully implement the environmental education, interpretation, wildlife observation, and photography programs identified in the CCP/EIS. Other funding sources will be sought through strengthened partnerships, grants, and donations to administer and manage a safe and quality environmental education, interpretation, wildlife observation, and photography program as described.

Category and Itemization	One-time	Annual (\$/yr)
Administration and management:	\$0000.00	\$5,000.00
Maintenance:	\$0000.00	\$5,000.00
Monitoring:	\$0000.00	\$5,000.00
Special equipment, facilities, or improvements:	\$25,000.00	\$5,000.00

Anticipated Impacts of Described Uses

Currently, there are few places in the surrounding area to view and interpret the diversity of habitats and wildlife that encompass this unique region. The Refuge's pastures, forested tidal swamps, brushy woodlots, marshes, tidally influenced wetlands, and sloughs provide habitat for endangered CWTD, wintering birds, Roosevelt elk, river otter, various reptiles and amphibians, songbirds, and nesting bald eagles and ospreys.

Activities that occur outside of vehicles (e.g., wildlife observation, trail hiking, bicycling, non-motorized watercraft, and environmental education programs) tend to increase disturbance potential for most wildlife species (Klein 1993). Human activities along trails disturb wildlife, often resulting in flushing from roosting, feeding, nesting, or resting areas. Flushing may result in expenditure of energy reserves, abandonment from preferred habitat, and increased exposure to predation during relocation. In riparian habitats, the abundance of bird species requiring shrub cover (e.g., MacGillivray's warbler and lazuli bunting) may be reduced at recreation sites, while species that forage in tree canopies may be unaffected. Trails in riparian areas may encourage the penetration of new animal species, including nest predators, into formerly protected forests (Knutsen and Naef 1997). Wildlife photographers tend to have the largest disturbance impacts because they may remain close to wildlife for prolonged periods (Klein 1993). Casual photographers with low-power lenses may approach wildlife closer than other users.

Most wildlife viewing and photography on the Julia Butler Hansen Refuge will occur at the Mainland Unit along the existing county dike roads. Wildlife of primary concern is CWTD, several species of waterfowl including Canada geese and ducks, wading and shorebirds and raptors. Public use of the Center Road Trail (even with a seasonal closure of October 1 through May 31) and the White-tail Trail (open year round) on the Mainland Unit may cause intermittent disturbance impacts to wildlife in adjacent habitat that are within visual or auditory range of the trails. Bicycling on the White-tail Trail may cause greater disturbance to wildlife than pedestrians, due to the more rapid movement of bicycles. However, we expect the impact to be minimal because the 20 meters between the trail and prime CWTD habitat is a sufficient amount of space to allow time for deer to maintain distance and not cause flushing. In addition, white-tailed deer are generally tolerant of moderate human disturbance. They often live in suburban neighborhoods and city parks, where human disturbance is nearly constant (Etter et al. 2002; Harveson et al. 2007). The relatively minor disturbance caused by pedestrians and bicyclists using perimeter areas would cause temporary and localized disturbance to CWTD.

When the Indian Jack Slough Trail and connector to the Brooks Slough Road are built, the Center Road Trail would be closed. This would likely result in lower levels of disturbance to CWTD, since the Center Road Trail cuts through core habitat for the deer.

Public vehicle uses on the Mainland Unit are limited to dike surface roads, which are set back from the fields along the outside boundary of the Refuge. While the dike roads provide excellent viewing and travel opportunities for refuge visitors, it should be noted that the roads surrounding the Refuge are managed by Wahkiakum County therefore the Service has no management control over the roads. The dike's elevation above surrounding terrain allows road/trail users to view wildlife at the interior of the Refuge at a distance that would not noticeably disturb the wildlife. Further, riparian forest and old field vegetation buffer the managed fields and provide a visual barrier. The shoulders of the dike have minimal value as wildlife habitat.

Wildlife respond differently to boats based on their size, speed, the amount of noise they make, and how close the craft gets to the animals (DeLong 2002). Boating activity, both motorized and non-motorized, can alter distribution, reduce use of particular habitats or entire areas by waterbirds and other birds, alter feeding behavior and nutritional status, and cause premature departure from areas (Knight and Cole 1995). More sensitive species may find it difficult to secure adequate food or loafing sites as their preferred habitat becomes fragmented and recreation-related disturbances increase (Skagen et al. 1991; Pfister et al. 1992). Canoes and kayaks can cause significant disturbance based on their ability to penetrate into shallower areas of a marsh (Speight 1973; Knight and Cole 1995). However, motorized boats generally have more impact on wildlife than non-motorized boats because motorboats produce a combination of movement and noise (Tuite et al. 1983, Knight and Cole 1995).

Allowing non-motorized boats into the newly restored tidal wetland between the Steamboat Slough dike and the new setback levee could cause disturbance to birds. In this case, impacts to wildlife are expected to be low because (a) the number of visitors engaging in this use is expected to be low, and (b) because this area is relatively small, approximately 70 acres, and ample habitat is available elsewhere on the Refuge.

Impacts from the general public on the islands of the lower Columbia River are relatively self-limiting. This is because the islands are accessible only by boat which reduces the number of potential visitors. Dense, almost-impenetrable vegetation on many of the islands and daily tidal changes also make visitation of the islands a challenge. Most visitor impacts on the lower river come from visitation of the adjacent shorelines and interior sloughs which may cause birds utilizing riparian habitat to flush. Although non-motorized boating has a potential to impact wildlife, the very limited number of visitors engaged in this activity, and the limited area this activity occurs in is expected to result in few of the impacts described above. Observable numbers of visitors engaged in this activity remain low, leading to the conclusion that for now, no additional stipulations are needed to protect island habitat on the Refuge from this limited amount of public use.

Impacts to wildlife resulting from disturbance from these uses are expected to be minor because there are more than adequate amounts of undisturbed habitats available for escape and cover.

Public Review and Comment

Most of the future changes to public use facilities included in this Compatibility Determination

were included in the Draft and Final CCP/EIS for the Refuge. Open house style public meetings were held and verbal and written comments were solicited from the public during scoping and comment periods for the Draft CCP/EIS. Appendix I of the Draft CCP/EIS further details public involvement undertaken during development of the CCP. This Compatibility Determination amends the Compatibility Determination signed September 23, 2010, and includes a description of planned future public use facilities and programs under the Final CCP/EIS, and changes to facilities and public use that occurred as a result of the Steamboat Slough restoration project (ACOE and USFWS 2013). Changes reflected in this Compatibility Determination were made available for public comment during public Wahkiakum County commissioners meetings in Cathlamet, Washington over the past three years (December 2013, June and July 2014, and February 2015). A local newspaper article (March 2014) reported the proposed changes as well. This CD was made available for public comment on April 1, 2015. A notice of the availability of the CD for public comment was published on the Refuge Website. The comment period was from April 1, 2015 to April 15, 2015 and no comments were received.

Determination

Use is Not Compatible

Use is Compatible with the Following Stipulations

Stipulations necessary to ensure compatibility

In order to minimize disturbance to wildlife from human activities, wildlife-dependent public uses have been designed to minimize the potential for disturbance. The majority of refuge visitors will use refuge-specific designated trails, public use facilities, and approved guided events. Unguided recreational activity occurring in closed areas would not be allowed unless operating under provisions of a Special Use Permit (SUP) and stipulations set by the Refuge Manager.

Public access to the Refuge is restricted to pedestrian, bicycle and boat traffic only.

The Center Road Trail is open to pedestrians only from June 1 – September 30 and the White-tail Trail is open year round to bicycles and pedestrians. The dike road surrounding the Tenasillahe Island Unit is open year-round for visitors to walk and observe wildlife. All other areas of the mainland and Tenasillahe Island units, inside of the dikes, will remain closed to reduce disturbance to CWTD and other wildlife.

Only non-motorized watercraft will be allowed to access channels and the tidally influenced wetland (Steamboat Slough Estuary) created by breaching the Steamboat Slough dike in 2014.

All public use areas managed by the Refuge will remain open dawn to dusk.

Regulatory and directional signs clearly mark the designated routes of travel and areas closed to the public.

Impacts associated with differing levels and types of public use will be evaluated by staff annually.

Monitoring information gathered by staff would be critically analyzed and used by the Refuge Manager to develop future modifications, if necessary, to ensure compatibility of wildlife observation and photography in all refuge locations.

Justification

The National Wildlife Refuge System Administration Act of 1966, as amended, identified wildlife observation, photography, interpretation, and environmental education as four of the six priority, wildlife-dependent recreational uses to be facilitated in the Refuge System, and the Act encouraged the Service to provide opportunities for these uses.

Visitors to the Refuge mainly use designated trails and public use sites intermittently and over a short time period, minimizing disturbance to wildlife. Thus, it is anticipated that wildlife populations would find sufficient food resources and resting places such that their abundance and use of the Refuge and surrounding areas would not be measurably lessened from public use activities. Public visitation would not cause wildlife populations to materially decline; the physiological condition and production of species would not be impaired; their behavior and normal activity patterns would not be altered dramatically; and their overall welfare would not be negatively impacted.

Based on the stipulations noted above that are designed to limit timing and amount of impact, allowing environmental education, interpretation, wildlife observation, and photography to occur on the Refuge would not materially detract or interfere with the purposes for establishment of the Refuge and the mission of the National Wildlife Refuge System.

Mandatory Re-Evaluation Date:

2030 Mandatory 15-year Re-Evaluation Date (for priority public uses)

_____ Mandatory 10-year Re-Evaluation Date (for all uses other than priority public uses)

NEPA Compliance for Refuge Use Decision:

_____ Categorical Exclusion without Environmental Action Statement

X Categorical Exclusion and Environmental Action Statement

_____ Environmental Assessment and Finding of No Significant Impact

_____ Environmental Impact Statement and Record of Decision

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Signatures approving and concurring with Compatibility Determination for Environmental Education, Interpretation, Wildlife Observation, and Photography on Julia Butler Hansen Refuge (Use is compatible with stipulations)

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