

INTER-AGENCY SECTION 7 BIOLOGICAL EVALUATION FORM

Originating Person: Christopher Lapp, Project Leader, Ridgefield NWRC

Telephone Number: 360-887-4106

Date: Oct 24, 2014

I **Region: 1**

II **Service Activity:** The US Fish and Wildlife Service (USFWS) is partnering with the Federal Highway Administration (FHWA), Western Federal Lands Highway Division, to improve access to the Ridgefield National Wildlife Refuge (NWR) in southwest Washington by replacing the structurally deficient Lake River Bridge with a new bridge along the same alignment. USFWS identified the need for access improvements to the refuge in their Comprehensive Conservation Plan (USFWS 2009) which called for considerations of a new access point to the refuge that could provide long term reliability for public access while meeting USFWS' operational needs. The existing access crosses a single lane bridge with a narrow passage that can be difficult for passenger vehicles and buses to access the refuge. The crossing is also complicated by an at-grade crossing of the BNSF railway on the eastern side of the bridge, and cars often pause on the railroad tracks to wait for oncoming traffic to clear the bridge. The narrow bridge also makes ongoing refuge operations difficult because USFWS stores most of their heavy equipment (e.g. farm tractors) off site and must cross the bridge regularly. Seeking to alleviate these concerns regarding access, FHWA undertook an in-depth transportation analysis to assess the current access location and identify specific alternatives that could improve access while being both economically and environmentally sustainable. In the end, FHWA considered 23 alternatives but determined that replacing the Lake River Bridge along the same alignment and creating an overcrossing of the railroad was the most feasible.

III **Pertinent Species and Habitat:**

Listed Species in the Vicinity of the Ridgefield NWRC Action Area:

Columbian White-tailed Deer (*Odocoileus virginianus leucurus*) Lower Columbia River DPS
(Endangered)

Bull Trout (*Salvelinus confluentus*) Mainstem Columbia River DPS, Critical Habitat Unit 8,
(Threatened)

Chinook Salmon (*Oncorhynchus tshawytscha*)

Snake River Fall-run (Threatened)

Snake River Spring/Summer-run (Threatened)

Lower Columbia River (Threatened)

Upper Columbia River Spring-run (Endangered)

Coho Salmon (*Oncorhynchus kisutch*)

Lower Columbia River/Southwest Washington

Steelhead (*Oncorhynchus mykiss*)

Snake River Basin (Threatened)

Upper Columbia River (Endangered)

Middle Columbia River (Threatened)

Lower Columbia River (Threatened)

Chum salmon (*Oncorhynchus keta*)

Columbia River (Threatened)

Eulachon (*Thaleichthys pacificus*)

Southern DPS (Threatened)

Proposed Species for listing within the Action Area:

None at this time.

Candidate Species for listing within the Ridgefield NWR Action Area:

None at this time.

IV. Geographic Area or Station Name and Action:

North Pacific Coast Ecoregion

Ridgefield National Wildlife Refuge Complex

P.O. Box 457

Ridgefield, Washington 98642

V. Location:

A. North Pacific Coast Ecoregion

B. County and State: Clark County, Washington

C. Distance and direction to nearest town:

Ridgefield NWR is located less than 3 miles east of Ridgefield, Washington.

D. Species/habitat occurrence: Species present seasonally in Lake River.

VI. Description of proposed action:

The project will replace the existing, trestle-style Lake River Bridge with a new bridge immediately to the south of the existing bridge. The new structure will be a four-span bridge supported on drilled shaft piers. It will be approximately 500 feet long to span both the US Coast Guard navigation channel of Lake River and the BNSF railroad tracks east of the bridge. Each

bent will be founded on large-diameter drilled shafts that will be sufficiently embedded within the soil for structure stability. For preliminary designs, the shafts are estimated to be 8-foot-diameter and 50 feet below ground line. Two piers (Pier 1 and Pier 2) will be placed in the river channel with a third pier outside of the river channel on the eastern streambank to support the railroad overcrossing portion of the bridge. Bridge abutments will be setback from the edge of Lake River about 50 feet to the west and 200 feet to the east. The total bridge width will be 32 feet wide, and will include two 12-foot travel lanes plus a 2-foot wide pedestrian walkway. The bridge superstructure will be built of precast concrete girders with a cast-in-place deck. Construction requires the use of a temporary work bridge supported on about 150 piles (108 in-water piles) to facilitate construction of the mid-channel piers. The temporary work bridge would remain in place for approximately one year. The existing bridge will remain in place during construction and continue to be used for public access. Following construction the old bridge will be demolished.

The project is expected to last two years and involves both in-water work and upland work elements. In-water work involves installation of the temporary work bridge, construction of in-water bridge foundations, and removing the existing bridge. To minimize construction duration, the project proposes an in-water work window dependent upon the activity as shown in Table . The timing of in-water work was developed considering recommended in-water work periods from Washington Department of Fish and Wildlife (WDFW) and US Army Corps of Engineers (USACE), and discussions with local agency biologists. Upland work involves establishment of on-site staging areas and construction access, traffic control, construction of bridge super structure, roadwork and paving, installation of new stormwater facilities, and on-site restoration and enhancement.

VII. Determination of effects:

A) Explanation of impacts of actions:

a. Bull Trout

The Mainstem Lower Columbia River Critical Habitat Unit (i.e., Unit 8, which extends from the Pacific Ocean to John Day Dam) provides essential foraging, migration, and overwintering habitat for extant bull trout populations in tributaries to the lower Columbia River (USFWS 2010). Although water temperatures may limit bull trout use of the habitat unit in the summer, water temperatures and available forage are suitable for bull trout during fall-spring (USFWS 2010). Thus, bull trout may be found in Lake River in low numbers most months of the year but are less likely to be present when seasonal conditions are unsuitable, such as those likely to be present during the in-water work window. Work done in the water column will include installing temporary and permanent pilings and removing existing pilings and treated wood debris. Temporary small diameter pilings for construction platforms and a temporary work bridge will be installed with impact hammer or vibrating (see attached Biological Assessment) during a low water period to the extent practicable and within the June 1 to September 15 construction window. Permanent bridge pilings will be vibrated into the substrate rather than hydraulically

driven to reduce sonic impacts. It is possible that bull trout may be temporarily displaced during in-water work but with the installation of the piling using vibratory methods (and bubble curtains when a hydraulic hammer is being used) impacts should be limited and localized. Direct or indirect mortality from in-water work is not expected and any sedimentation occurring during construction is anticipated to be temporary and localized, therefore the project is unlikely to adversely affect bull trout.

b. Columbian White-tailed Deer

Columbian white-tailed deer (CWTD) occasionally use the Lake River riparian zone for forage and cover. Observations of CWTD have been made within 400 yards of the project area. Federally-listed salmonids (see above list) and eulachon (both adults on spawning runs and out-migrating juveniles) are found in the Lake River.

There is a low potential for some displacement of individual CWTD during construction activities. However, given the current level of daily disturbance on the existing auto tour route and abundance of suitable habitat including mixed deciduous habitat with oak savannah in some areas and other of moderate to sparse reed canary grass with upland meadows supporting a variety of grasses and forbs, disturbance to individual CWTD are extremely unlikely to occur. Habitat disturbances will be local and temporary.

The remedial action will provide some environmental benefits to the action area by reducing unacceptable risks to ecological receptors by removing contaminated pilings and increasing the amount of woody riparian vegetation. With the above actions in place, Refuge staff believes that there will be minimal effects to listed species or their critical habitat.

VIII. Effects determination and response requested:

A) Listed species/critical habitat:

Determination

May affect; not likely to adversely affect:

Species:

Columbian White-tailed Deer (*Odocoileus virginianus leucurus*)

Bull Trout (*Salvelinus confluentus*), Critical Habitat Unit 8

B) Proposed species/proposed critical habitat: None at this time.

C) Candidate species/proposed critical habitat: None at this time.

IX. Signature Page

Initiating Officer  Date 10/27/14
 Concur Do Not Concur

Comments:

Endangered Species Supervisor Marna L. Jensen Date 1/7/14
 Concur Do Not Concur

Comments:

Field Supervisor  Date 1/9/15
 Concur Do Not Concur

Comments:

Literature Cited

USFWS. 2010. Bull trout final critical habitat justification: Rationale for why habitat is essential, and documentation of occupancy. U.S. Fish and Wildlife Service, Idaho Fish and Wildlife Office Boise, Idaho. Pacific Region, September 2010.

Figures and Tables

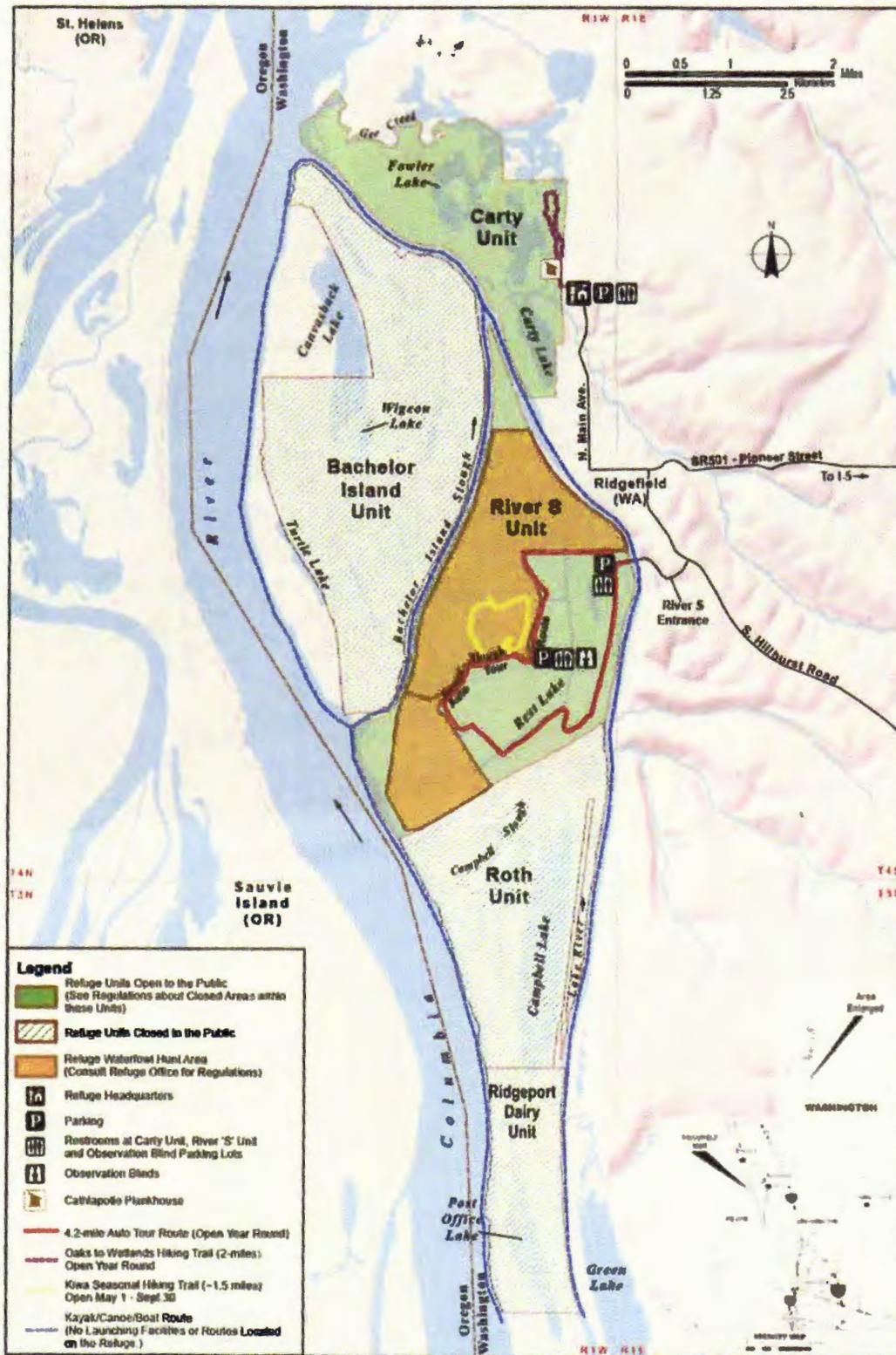


Figure 1. Ridgefield NWR, Clark County, Washington



Figure 2. Existing Lake River Bridge, Ridgefield NWR, Clark County Washington