

**Endangered Species Act Section 7 Consultation Form  
For  
Turnbull NWR Elk and Youth Waterfowl Hunt**

**File #:** R1-13562-2008-P-001

**Refuge:** Turnbull National Wildlife Refuge  
**Address:** 26010 S. Smith Rd, Cheney, WA 99004  
**Phone:** (509) 235-4723

**Refuge Action:** The Service is proposing to initiate a limited entry Rocky Mountain elk Hunt and a 2-day waterfowl Hunt on Turnbull National Wildlife Refuge.

**Part 1**

**I. Project Overview**

**1. Project Location (See Figure 3.1 in the attached EA)**

Turnbull National Wildlife Refuge is located in the Columbia Basin Ecoregion in Spokane County, Washington approximately 2.5 miles south of the town of Cheney. The refuge occurs in portions of the following townships:

T. 23N R41E  
T. 23N R42E  
T. 22N R41E  
T. 22N R42E

The Rocky Mountain elk hunt will take place in 5 different units of the refuge (see attached map (Figure 2.2 in EA). Youth Waterfowl hunt will take place on the northern shore of Upper Turnbull Slough (see Figure 2.1 in EA)

**2. Description of the Proposed Action**

The U.S. Fish and Wildlife Service (Service) is proposing to initiate an annual, safe, high quality, walk-in, limited-entry elk hunting program and a safe, high quality, low-impact youth waterfowl hunt on the annual State youth hunt weekend beginning in 2009. These hunts are proposed to meet goals and objectives identified in the Final Comprehensive Conservation Plan (CCP) and EA (USFWS 2007). A step-down Hunt Plan and EA (2008) were developed that provides specific details about the 2 hunts and their potential effects on the refuge environment. A description of the proposed hunts follows:

## Youth Waterfowl Hunt

The youth waterfowl hunt would occur on the same weekend offered by the State (last weekend in September). The hunt would take place on the northern shore of Upper Turnbull Slough. This unit is approximately 140 acres in size. Hunters would be required to hunt within 50 yards of up to 8 marked locations that are approximately 300 yards apart (Figure 2.1). One of the hunt blinds would be accessible to disabled hunters. Access to the blinds would be from the road that parallels the north side of Upper Turnbull inside Gate 6 on the Cheney Plaza Road. Signs would be placed on the road adjacent to the blind location and additional signs will direct hunters to the blind. No trail will be constructed to provide access to the blind, with the exception of the blind for disabled hunters. For this blind a wheelchair accessible path will be constructed as well as a platform at the blind location.

## Elk Hunt

The Rocky Mountain Elk hunt would include hunting within the three units specified in the CCP (Figure 2.2 in EA). The hunt seasons will be for the most part concurrent with the seasons offered by the state in Game Management Unit (GMU) 130. The seasons and permits offered in each unit are detailed in Table 2.1(below). Hunters will be required to obtain an elk tag for the Refuge Hunt of their choosing through application with the state who will assign tags by lottery. In addition, hunters will be required to purchase a Refuge Access Pass at a cost of \$25. Hunters, with the exception of disabled hunters, will only be allowed access by foot through the following gates where parking will be provided- gates 9, 7, 12, 18, and 1B. The elk hunt includes 2 additional units near areas used by the non-hunting public, which will only be open during the archery and muzzleloader seasons (Table 2.1 in EA). The 2 additional units would be opened to hunting if monitoring indicates that elk are utilizing the remaining refuge no-shooting zones disproportionately to the hunt units. Concentrating elk within the no-shooting zones will increase impacts to aspen in these areas and reduce harvest opportunities both on and off-refuge. An additional Parking Area will be required at Gate 5 for access to the Northwest Unit (Figure 2.2 in EA).

Table 2.1. Turnbull NWR Proposed Seasons, Total Number of Permits per Season, and Maximum Number per Unit.

Hunt Season	Proposed Permits	Maximum Permits per Hunt Units				
		SW	NE	Helms	NW*	SE*
Archery Sept 8-20	19	8	4	2	3	2
Early Muzzleloader Oct 4-10	8	8	2	1	3	2
Disabled Sept 22- Oct 3	6	6	2	1	3	2
Early Modern Firearm Oct 25- Nov 2	6	6	0	0	0	0
Mid Modern Firearm Nov 3 – 8	6	6	0	0	0	0
Late Modern Firearm Nov 10 - 15	6	6	0	0	0	0
Late Muzzleloader Nov 20- Dec 8	14	8	2	1	3	2
Master Hunter Dec 9-31	6	6	2	1	3	2
Modern Firearm Bull Hunt Oct 27- Nov 15	1	1	0	0	0	0
Totals	72	55	12	6	15	10

\* Reserve Units

### 3. Project Timeline

The Sport Hunting Plan for Turnbull NWR was submitted to the Regional Office for Review 11/6/2008. It was made available to the public for review from November 18 through December 19, 2008. The full Hunt Plan Package including the Section 7 review will be sent to the Washington Office by the end of January 2009.

### 4. Federally Listed Species and Critical Habitat

#### A. Listed species and/or their critical habitat:

Water Howellia (*Howellia aquatilis*) - threatened plant species  
 Spalding's silene (*Silene spaldingii*) – threatened plant species

Ute ladies'-tresses (*Spiranthes diluvialis*) - threatened plant species

**B. Proposed species and/or proposed critical habitat:**

No proposed species or proposed critical habitat is located in the project area.

**C. Candidate species<sup>1</sup>:**

Bald eagle (*Haliaeetus leucocephalus*) (delisted, monitor status)  
Peregrine Falcon (*Falco peregrinus*)  
Northern goshawk (*Accipiter gentilis*)  
Loggerhead shrike (*Lanius ludovicianus*)  
Long-eared myotis (*Myotis evotis*)  
Pallid Townsend's big-eared bat (*Corynorhinus townsendii pallescens*)  
Olive-sided flycatcher (*Contopus borealis*)  
Palouse Goldenweed (*Happlopappus liatrisformis*)

The remainder of the species on the list for Spokane County provided by the ESO does not occur on the refuge nor are there any records of their occurrence in the past.

**Part 2 – Informal Consultation**

**II. Effects Analysis**

**Water howellia**

The Refuge contains 35 of 170 known occurrences of this species. The potential for several more occurrences occur within the refuge vicinity. The habitat of water howellia consists of seasonal wetlands or the margins of semi-permanent wetlands that experience annual fluctuations in water depths. Water howellia germinates in the late summer or fall on the portion of the pond bottom that is exposed when water recedes (Shelley and Moseley 1989). The pond bottoms usually consist of firm, consolidated clay and organic sediments. In order for the plant to grow, flower, and produce seeds, these germination sites must be inundated the following spring. Howellia is generally found in water depths less than 3 feet but has been found in depths up to 6 feet. Wetlands are generally small (<3 acres in size), occur in a forested matrix and are frequently bordered by broad-leaved deciduous trees.

Little information is available on the historic occurrence of this species on the refuge or the surrounding area. Alteration of refuge wetlands through the years may have had a negative impact on this species reducing the amount of suitable habitat. Management or historic land use activities that significantly altered the

---

<sup>1</sup> Include state-listed species here if they are to be evaluated through the Section 7 consultation.

basin bottom through mechanical excavation, combustion or sedimentation may have displaced the seedbed or caused direct mortality of seeds and jeopardized sub-populations of this species. Alteration of the hydrologic regime of a wetland through drainage or changes in the water yield of watersheds due to increased coniferous forest cover may have reduced the amount of available habitat. The introduction of evasive exotic species capable of invading water howellia habitat, such as reed canarygrass, may have through competition for light and space reduced or eliminated the area of suitable habitat in refuge wetland basins. Changes in water chemistry or temperature as a result of increased sedimentation or nutrient input could have resulted in changes in macrophyte and algal communities that may adversely affected the survival of individual populations through competition for light and space. A map of the known locations is attached.

#### Summary Effects (Page 34 in EA)

Because the proposed actions neither take place near known occurrences of this species or in habitat suitable to water howellia, or occur at such levels that effects would be insignificant, they are not likely to adversely affect this species. It is projected that this species' populations will remain stable or moderately increase with implementation of other aspects of the CCP besides hunting.

#### Youth Waterfowl Hunt

Since there are no known occurrences of water howellia in the proposed waterfowl hunt unit, and the hunt unit does not contain habitat that fits the definition of potential water howellia habitat, none of the alternatives would result in increased direct or indirect effects to this threatened plant species.

#### Elk Hunt

The danger to water howellia from elk hunters is the potential for direct effects due to trampling of newly germinated seedlings on the exposed pond bottom of the seasonal/semi-permanent wetlands where this plant species occurs. Although a large percentage (60%) of the known howellia occurrences are located within the proposed hunt units (Figure 3.4 in EA), the low hunter density (1.1 -1.2 per sq mile), the likely avoidance of wetlands by elk hunters and the widely dispersed nature of howellia habitat makes it highly unlikely that an elk hunter would trample any seedlings.

#### **Spalding's silene**

Spalding's silene, also known as Spalding's catchfly, was listed as a threatened species under the Endangered Species Act in 2001. The species has been documented on the Refuge and 28 populations have been identified in eastern Washington (Spokane, Lincoln, Whitman, and Asotin counties). The refuge staff has undertaken intensive surveys of all potential Spalding's silene habitat on the refuge. Surveyors were provided training on the habitat of this species and identification of the plant using known populations on nearby BLM property by a BLM botanist. This species is primarily restricted to Palouse steppe plant associations. A map of known occurrences on the refuge is attached.

#### Summary Effects (Page 16 of EA)

Potential threats to Spalding's silene include direct impact to populations and habitat associated with facilities expansion, trampling of vegetation by foot travel, and potential introduction of exotic species. There are nine known populations of Spalding's silene on the refuge, 7 of them are within the Public Use Area. Three of the populations in the Public Use Area are in the Southeast Hunt Unit and the 2 populations outside the Public Use Area are in the Northwest Hunt Unit. Both of these units are proposed to be opened only if elk begin using these no shooting zones disproportionately thus increasing damage to aspen habitat. No occurrences of this species are located near access points for waterfowl hunting blinds or in the other proposed elk hunt units. The probability that a hunter will trample a plant of this species is very low as a result of the low density of hunters in steppe habitat and the fact that the 2 units containing Spalding's catchfly will only be open to archers and muzzleloaders who hunt primarily from tree cover, not typical habitat for this species. The hunting season also takes place during the period of plant dormancy which makes any adverse impact to this plant species unlikely. None of the proposed facilities (blinds and parking areas) would be near any known populations of this plant species on the Refuge. Although any direct effect to this species is unlikely, should a plant be stepped on by a hunter the effects would be insignificant.

#### Ute ladies' -tresses

This species has not been documented on the refuge. Several plant surveys have been conducted on the refuge since 1984 without documenting its presence. Hooded ladies' -tresses (*Spiranthes romanzoffiana*), a similar species has been found on the refuge. Suitable habitat may occur here, but it is generally dominated by reed canarygrass. This invasive grass species forms a dense thatch layer that can prevent the germination and growth of herbaceous plant species such as Ute ladies' -tresses which appears to require early successional habitats. It is unlikely that it occurs here.

Because of its absence from the refuge, no direct or indirect effects are expected to this species or its habitat.

## **Bald Eagle**

Bald eagle use of the refuge is transitory and associated with concentrations of migrating and wintering waterfowl. On the average, 5 sightings are made of bald eagles annually. The greatest percentage (46%) of sightings is made during early spring, peaking in late February and early March. Another peak (28%) is observed in late November and early December.

### Elk Hunting

The limited-entry elk hunt proposed in the preferred alternatives could result in short-term impacts to eagle use within the hunt units. Hunt units would incorporate portions of the large permanent wetlands utilized by eagles, and hunters would occasionally be walking within 820 feet (250 meters) of this habitat. Stalmaster and Newman (1978) found that gunshots were the only noises that elicited overt escape behavior by bald eagles in their study. Edwards (1969) also found that gunshots could be used to flush eagles from their roost (cited in Stalmaster and Newman 1978). The transitory use by a small number of eagles, the small number of elk hunting permits issued and the short period of time hunters would be present near bald eagle habitat would result in only insignificant and wholly discountable impacts to eagles.

When lead ammunition is used by hunters to harvest animals, there is the potential for ingestion of lead fragments by non-target species particularly members of the scavenger guilds such as bald eagles. Ingestion of lead can result in lead poisoning related mortality. Under both alternatives, elk hunters will either be required to use non-toxic ammunition or to remove all animal remains that may contain spent lead thereby removing this threat to non-target species.

### Youth Waterfowl Hunt

Annual waterfowl hunting would increase the amount of disturbance to bald eagles within the proposed hunt unit and would likely result in avoidance of this area during the period of the hunt. The proposed two-day youth waterfowl hunt on the northside of Upper Turnbull Slough would, however, have negligible impacts on bald eagles as it would only affect 13.7 % of the available bald eagle habitat on those 2 days. Eagle use of the refuge is transitory with only a few individual birds observed during the course of the fall on any particular wetland, birds disturbed by hunting can easily move to nearby undisturbed habitat (< 0.25 miles) that will also likely hold waterfowl disturbed from the hunt unit.

Waterfowl hunting may, however, increase the food base as a result of wounding and crippling of waterfowl. Eagle use of this food source in the hunt units could potentially increase eagle numbers following the departure of hunters. Ingestion

of lead shot by eagles in wounded and crippled waterfowl and subsequent poisoning would be avoided as lead shot will be prohibited for hunting waterfowl on the refuge.

### **Peregrine Falcon**

An observation of a peregrine falcon on the refuge occurs around once a decade. There are certainly opportunities for more use of the refuge by Peregrines as the refuge host populations of waterfowl and shorebirds, an important food source, sometimes in large number.

Because it is unlikely that a peregrine falcon would be present on the refuge during the waterfowl and elk hunting periods, and the probability that a hunter will spend significant time within wetlands or in adjacent disturbance zones is extremely low, no significant impacts to wetland habitat and associated species are expected to occur from either elk or waterfowl hunting on the refuge.

The potential effects are best summarized by impacts to wetland dependent wildlife in the EA (Page 34).

### **Long eared-myotis**

The presence of long-eared myotis has been confirmed on the refuge during a study of the refuge bat community. Lactating females were captured indicating the presence of maternity colonies in the refuge area. A radio-tagging study of long-eared myotis conducted on the Refuge found maternity colonies of this species were located exclusively in rock crevices in low-lying basalt out crops. These rock structures are common on the refuge and the surrounding area.

This species may be present and active on the Refuge during the 2-day waterfowl hunt, primarily foraging over wetlands during the late evening and possibly very early morning. This period of activity will not coincide with waterfowl hunting resulting in no effects on this species. The species will not likely be present on the refuge or at least not active during the elk hunt as this species typically hibernates during this time period. At this time there are no known hibernacula on the Refuge. Because this species is not likely to be present or active on the refuge during the proposed hunt periods and none of the proposed infrastructure will impact important roosting or foraging habitat, there will be no effects to this species. The potential effects are best summarized by impacts to steppe (page 35), ponderosa pine (page 36) and aspen-riparian dependent wildlife (page 37) in the EA.

### **Pallid Townsend's big-eared bat**

A single pallid Townsend's big eared bat was captured 1 mile east of the refuge boundary in 1998. Given that this species doesn't move far, this observation suggests that there is probably a local colony. There is a known maternity colony in an abandoned cabin near Newman Lake, Washington east of Spokane. The number of old out-buildings and barns in the surrounding area provide potential roosting habitat for this species. Occurrence in the project area is currently unknown.

The proposed action would not affect this species because its nocturnal activity period and seasonal hibernation makes it unlikely it would be active in the project area during the hunt periods and no effects to potential roosting or foraging habitat is expected.

### **Olive-sided flycatcher**

The olive-sided flycatcher has not been found nesting on the refuge. During point count surveys over the past 10 years this species has only been encountered three times during the spring migration period. They have not been observed on the refuge during the period of time that the hunts will be taking place, and would not be expected since this species usually has migrated southward by mid-September.

The proposed action would not affect this species because it is unlikely that it would occur in the project area during the hunt periods and no effects to potential nesting or foraging habitat is expected. The potential effects are best summarized by impacts to ponderosa pine (page 36) and aspen-riparian dependent wildlife (page 37) in the EA.

### **Loggerhead shrike**

This species has rarely been observed on the refuge. The primary breeding range in eastern Washington is the sagebrush steppe zone west of the refuge in the more arid portions of the Columbia Basin. It is possible that an individual may be present in the area during the hunting season although highly unlikely.

The proposed action would not affect this species because it is unlikely that it would occur in the project area during the hunt periods and no effects to potential foraging habitat are expected. See summary effects to steppe habitats and associated species on page 35 in EA)

### **Northern Goshawk**

One to two individuals of this species have been observed on the refuge every few years. When seen it is commonly during the fall migration period. This migration is usually over by the end of September.

The proposed action would not affect this species because it is unlikely that it would occur in the project area during the hunt periods and no effects to potential nesting or foraging habitat is expected. The potential effects are best summarized by impacts to ponderosa pine (page 36) and aspen-riparian habitat and their dependent wildlife (page 37) in the EA.

**Palouse Goldenweed**

This species is endemic to the Palouse Zone of eastern Washington. There are no known occurrences of this species on the refuge. A survey for this species was undertaken in conjunction with a Spalding’s silene survey. One occurrence exists 4 miles east of the refuge in an ‘eyebrow’ of Palouse adjacent to the Cheney/Spangle Road.

The proposed action would not affect this species. Since it is unlikely that it occurs in the project area, no effects to its potential habitat is expected. See summary effects to steppe habitats and associated species on page 35 in EA)

**III. Effects Determination and Response Requested:**

**Determination**

**A. no effect/no adverse modification**

- Ute ladies’ -tresses (*Spiranthes diluvialis*) – Federal threatened plant species
- Peregrine Falcon (*Falco peregrinus*) – Species of Concern
- Northern goshawk (*Accipiter gentilis*) – Species of Concern
- Loggerhead shrike (*Lanius ludovicianus*) – Species of Concern
- Long-eared myotis (*Myotis evotis*) – Species of Concern
- Pallid Townsend’s big-eared bat (*Corynorhinus townsendii pallescens*) – Species of Concern
- Olive-sided flycatcher (*Contopus borealis*) – Species of Concern
- Palouse Goldenweed (*Happlopappus liatrisformis*) – Species of Concern

**B. may affect, but is not likely to adversely affect species/adversely modify critical habitat**

- Water Howellia (*Howellia aquatilis*) - Federal threatened plant species
- Spalding’s silene (*Silene spaldingii*) – Federal threatened plant species
- Bald eagle (*Haliaeetus leucocephalus*) – Species of Concern (delisted, monitor status)

**C. may affect, and is likely to adversely affect species/adversely modify critical habitat**

species: \_\_\_\_\_ status: \_\_\_\_\_ \*

species: \_\_\_\_\_ status: \_\_\_\_\_ \*

critical habitat: \_\_\_\_\_ \*

D. may affect, and is likely to adversely affect species/adversely modify critical habitat

species: \_\_\_\_\_ status: Proposed \*\*  
species: \_\_\_\_\_ status: Candidate \*\*  
proposed critical habitat: \_\_\_\_\_ \*\*

\* Formal Consultation is required, check the appropriate concurrence statement below and sign; then proceed to Part 3, Section IV (Formal Consultation).

\*\* For Proposed Species and Critical Habitat, or Candidate Species a conference with Branch of Refuge Biology staff is required; a Formal Consultation is not required.

\_\_\_\_\_  
Signature of Preparer

\_\_\_\_\_  
Date

Evaluation by Project Leader:

1. For A & B above: Concurrence X Non-concurrence \_\_\_\_\_
2. For C above: Formal consultation required \_\_\_\_\_
3. For D above: Conference required \_\_\_\_\_

*for* Mark G. Miller  
Signature of Project Leader

12-11-09  
Date

## **Appendix A. Literature Cited**

Shelly, J. S. and R. Moseley. 1988. Report on the conservation status of *Howellia aquatilis*, a candidate threatened species. Unpublished report to the U. S. Fish and Wildlife Service, Denver, Colorado. Montana Natural Heritage Program, Helena, Montana. 166pp.

Stalmaster, M. V. and J. R. Newman. 1978. Behavioral responses of wintering bald eagles to human activity. *J. Wildl. Manage.* 42:506-513.

U.S. Fish and Wildlife Service. 2007. Turnbull National Wildlife Refuge Comprehensive Conservation Plan.