

## **B.3 Compatibility Determination for Waterfowl Hunting at Tualatin River National Wildlife Refuge**

**Use:** Waterfowl hunting

**Station Name:** Tualatin River National Wildlife Refuge

**Date Established:** 1992

**Establishing and Acquisition Authority(ies):**

Fish and Wildlife Act of 1956 (16 U.S.C. § 742a. *et seq.*)

Emergency Wetlands Resources Act of 1986 (16 U.S.C. § 3901-3932)

**Refuge Purpose(s):**

— ... for the development, advancement, management, conservation, and protection of fish and wildlife resources ...| 16 U.S.C. § 742f(a)(4) (Fish and Wildlife Act of 1956)

— ... 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)

— ... the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions ...| 16 U.S.C. § 3901(b) (Emergency Wetlands Resources Act of 1986)

**National Wildlife Refuge System Mission:**

—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 *et seq.*]).

**Description of Use:**

The Service plans to allow hunting of ducks, geese, and coots in accordance with state and Federal regulations and refuge-specific special conditions. A youth waterfowl hunt will be conducted on the Oleson parcel of the Riverboat Unit.

Hunting will take place during regular state seasons, which generally run from October to January, but dates are subject to change annually and based on evaluation of the program

success. Youth hunts will be conducted on selected days in coordination with Oregon Department of Fish and Wildlife.

Youth hunting will be allowed using two to five blinds on the Riverboat Unit, but this may change depending on the quality of the hunt. A maximum of two youth and two supervising (but nonhunting) adults will be accommodated in each blind. Blind assignments will be conducted via lottery prior to each hunt date. Although dogs are generally prohibited for all other uses on the refuge, they are a vital part of the waterfowl hunting tradition and can reduce the loss of waterfowl, thus reducing the

overall impact to the resource. Because of their role in retrieving waterfowl, dogs used for waterfowl retrieval purposes are allowed on the refuge for waterfowl hunting.

In accordance with the National Wildlife Refuge System Administration Act of 1966, as amended, hunting is a priority wildlife-dependent public use. Public land for waterfowl hunting is in limited supply, especially near large metropolitan areas (U.S. Department of the Interior [USDOl] et al.

2007) such as Portland. In general, there has been a static or declining trend in hunting participation relative to population growth in the United States (USFWS 2004) since 1985. The trend also indicates a declining number of young hunters. From 1991 to 2001, the number of Americans 16 years of age and older who hunted declined by 7 percent. However, in Oregon from 1991 to 2001, hunter participation increased by 2 percent (USFWS 2004). According to Raftovich et al. (2011) there were approximately 21,400 active waterfowl hunters in Oregon during 2010. Opportunities to hunt in the greater Portland area are increasingly scarce due to an ever-growing population, urbanization, and a relative lack of public lands open to these uses. Hunting (both for and against) was the subject of more letters and e-mails received during scoping for the CCP than any other topic. In particular, the community has expressed a very strong interest in sharing hunting traditions with youth. Opening the refuge to waterfowl hunting will provide the public an opportunity to hunt in proximity to the urban area, in uncrowded and relatively natural environments, and at a reasonable cost. The habitat and wildlife objectives for the Riverboat Unit are very likely to support quality waterfowl hunts as the refuge will be restoring habitat used by waterfowl. Refuge hunting opportunities will be offered consistent with state hunting regulations, and with management plans for applicable species and the Pacific Flyway Council's (PFC's) plans for cackling Canada geese (PFC 1999) and dusky Canada geese (PFC 2008).

Hunters have helped buy land for the Refuge System for nearly 70 years through the purchase of Migratory Bird Hunting and Conservation Stamps—also known as Duck Stamps—and continue to support and advocate for refuges and conservation. Hunters also participate and share in wildlife photography, education, and interpretation while hunting. These activities will tend to promote and support the mission of the Refuge System.

Tualatin River National Wildlife Refuge was established under, or to fulfill the purpose of, the Migratory Bird Conservation Act (16 U.S.C. § 715a-715r), or through approval of the Migratory Bird Conservation Committee, as an —inviolate sanctuary for migratory birds, or for any other management purpose, for migratory birds.¶ On units of the Refuge System or portions thereof established as an —inviolate sanctuary,¶ the Service may only allow hunting of migratory gamebirds on no more than 40 percent of that refuge, or portion, at any one time unless the Service finds that taking of any such species in more than 40 percent of such an area will be beneficial to the species (National Wildlife Refuge System Administration Act and Migratory Bird Conservation Act).

#### **Availability of Resources:**

Administering the refuge hunt program requires substantial staff time, equipment, and funding. To provide a quality hunting experience, access trails, parking lots, signs, and other facilities

must be maintained annually. The refuge does not have a law enforcement officer on staff and must rely on zone officers or partnering law enforcement agencies to ensure compliance with state and Federal regulations and refuge-specific special conditions. Funding associated with facilities maintenance (roads, parking areas, signs, etc.) is included in other refuge programs requiring the same support.

Increased volunteer assistance, stronger existing partnerships, and new partnerships will be sought to support these programs in an effective, safe, and compatible manner. Refuge staff will increase volunteer recruitment efforts. Volunteers, interns, and various user groups when provided appropriate training can assist the refuge with monitoring, education and interpretation programs, and maintenance projects. With additional assistance as described above, staffing and funding is expected to be sufficient to manage these uses.

**Costs to Administer and Manage Hunting under the CCP**

<b>Category and Itemization for Waterfowl Hunting Program</b>	<b>One-time Expense</b>	<b>Annual Expenses</b>
Develop youth hunting program opening package	\$10,000	
Construct youth hunting blinds	\$15,000	
Develop signage and brochures	\$2,000	\$500
Administration and management		\$5,000
Maintenance		\$2,000
Law enforcement staff		\$5,000
<b>Total one-time expenses for youth waterfowl hunting program</b>	<b>\$27,000</b>	
<b>Total annual expenses for youth waterfowl hunting program</b>		<b>\$12,500</b>

**Anticipated Impacts of the Use:**

***Short-term Impacts:***

Short-term impacts include disturbance to wetland habitat to install hunting blinds. Blinds will be installed during late summer when wetland water levels are low or dry, migratory waterfowl are not present, and locally nesting birds have hatched their young. Short-term impacts will also include disturbance of migratory waterfowl and other wildlife during hunting activities. Direct take of waterfowl will occur, and take of some non-target species might also occur. The presence of hunters and dogs, sounds of gunfire, and the sight of hunters traveling to and from hunt areas can disturb wildlife species such as pied-billed grebe, great blue heron, bald eagle, and tundra swan, which forage in refuge wetlands. This disturbance, especially when repeated over a period of time, may result in some wildlife species altering their behavior or moving to other areas. Hunting will occur outside of the breeding season. No significant effects are expected for refuge fish populations.

***Long-term Impacts:***

Long-term impacts include loss of some vegetation surrounding hunting blinds and impacts to

migratory waterfowl and other wildlife species from repeated disturbance. The hunting blind itself will have a —footprint of vegetation disturbance and trampling of vegetation by hunters using the blind. Migratory waterfowl and other wildlife species will be disturbed during times when hunting is occurring, and to some extent some will avoid the hunt area during nonhunting days as well. Annual maintenance of hunting blinds will also cause disturbance to both habitat and wildlife in the vicinity of the blinds.

Although hunting directly impacts individuals, the amount of waterfowl harvest is not expected to change or to have a measurable effect on refuge, Willamette Valley, or Pacific Flyway populations, as waterfowl hunting activity is not extremely high in the highly urbanized Willamette Valley.

Hunting may be either compensatory or additive to natural mortality (Anderson 1995). Compensatory mortality occurs when hunting substitutes for other forms of mortality (disease, competition, predation, severe weather, etc.). Additive mortality occurs when hunting compounds the total mortality. In some cases, hunting can be used as a management tool to control populations. In concert with Canada, Mexico, and multi-state flyway councils, the Service and state wildlife agencies regulate hunting so that harvest does not reduce populations to unsustainable levels.

Direct effects of hunting on waterfowl are mortality, wounding, and disturbance (DeLong 2002). Hunting can alter behavior (e.g., foraging time), population structure, and distribution patterns of wildlife (Bartelt 1987; Cole and Knight 1990; Madsen 1985; Owens 1977; Raveling 1979; Thomas 1983; White-Robinson 1982). In Denmark, hunting was documented to affect the diversity and number of birds using a site (Madsen 1995). Avian diversity changed from predominantly mute swan and mallard to a more even distribution of a greater number of species when a sanctuary was established. Hence, species diversity increased with the elimination of hunting. There also appears to be an inverse relationship between the numbers of birds using an area and hunting intensity (DeLong 2002). In Connecticut, lesser scaup were observed to forage less in areas that were heavily hunted (Cronan 1957). In California, the numbers of northern pintails on Sacramento Refuge's non-hunt areas increased after the first week of hunting and remained high until the season was over in early January (Heitmeyer and Raveling 1988). Following the close of hunting season, ducks generally increased their use of the hunt area; however, use was lower than before the hunting season began.

Human disturbance to wintering birds and other wildlife using the open waters of the refuge will occur as a result of hunting activity. Migratory and wintering waterfowl generally attempt to minimize time spent in flight and maximize foraging time because flight requires considerably more energy than any other activity other than egg laying. Human disturbance associated with hunting includes loud noises and rapid movements, such as those produced by shotguns and dogs. This disturbance, especially when repeated over a period of time, compels waterfowl to change food habits, feed only at night, lose weight, or desert feeding areas (Madsen 1995; Wolder 1993).

Disturbance levels from hunting activity outside Chincoteague Refuge were found to be high enough to force wintering black ducks into a pattern of nocturnal feeding within surrounding salt marsh and diurnal resting within refuge impoundments (Morton et al. 1989a, 1989b). Unhunted populations have been documented to behave differently from hunted ones (Wood 1993).

The impacts noted above can be reduced by the presence of adjacent sanctuary areas where hunting does not occur, and birds can feed and rest relatively undisturbed. Sanctuaries or non-hunt areas have been identified as the most common solution to disturbance problems caused from hunting (Havera et al. 1992). Prolonged and extensive disturbances may cause large numbers of waterfowl to leave disturbed areas and migrate elsewhere (Madsen 1995;

Paulus 1984). In Denmark, hunting disturbance effects were experimentally tested by establishing two sanctuaries (Madsen 1995). Over a five-year period, these sanctuaries became two of the most important staging areas for coastal waterfowl. Numbers of dabbling ducks and geese increased fourfold to 20-fold within the sanctuary (Madsen 1995). On the refuge, all units except the Atfálat'i and Riverboat Units will be closed to public entry, and with numerous wetlands and sloughs available, these other units act as a sanctuary during the waterfowl season.

### ***Cumulative Impacts:***

The hunting of waterfowl in the United States is based upon a thorough regulatory setting process that involves numerous sources of waterfowl population and harvest monitoring data. Waterfowl populations throughout North America are managed through an administrative process known as flyways, of which there are four (Pacific, Central, Mississippi, and Atlantic). Oregon is included in the Pacific Flyway.

National Environmental Policy Act (NEPA) considerations incorporated by the Service for hunted migratory gamebird species are addressed by the programmatic document *Final Supplemental Environmental Impact Statement: Issuance of Annual Regulations Permitting the Sport Hunting of Migratory Birds*, which was filed with the U.S. Environmental Protection Agency (EPA) on June 9, 1988. The Service published the record of decision for this document on August 18, 1988 (53 Federal Register [FR] 31341). This document is in the process of being updated; in August 2009, the *Draft Supplemental Environmental Impact Statement: Issuance of Annual Regulations Permitting the Hunting of Migratory Birds* was released (USDOJ 2009). Annual NEPA considerations for waterfowl hunting frameworks are covered under a separate environmental assessment and finding of no significant impact.

The Migratory Bird Treaty Act stipulates that all hunting seasons for migratory gamebirds be closed unless specifically opened by the Secretary of the Interior. The Service annually promulgates regulations establishing the Migratory Bird Hunting Frameworks. The frameworks are essentially permissive in that hunting of migratory birds will not be permitted without them. Thus, in effect, Federal annual regulations both allow and limit the hunting of migratory birds.

The Migratory Bird Hunting Frameworks provide season dates, bag limits, and other options for the states to select that should result in the level of harvest determined to be appropriate based upon Service-prepared annual biological assessments detailing the status of migratory game bird populations. In North America, the process for establishing waterfowl hunting regulations is conducted annually. In the United States, the process involves a number of scheduled meetings (Flyway Study Committees, Flyway Councils, Service Regulations Committee, etc.) in which information regarding the status of waterfowl populations and their habitats is presented to individuals within the agencies responsible for setting hunting regulations. In addition, public hearings are held, and the proposed regulations are published in the Federal Register to allow public comment.

For waterfowl, annual assessments used in establishing the frameworks include the Breeding Population and Habitat Survey, which is conducted throughout portions of the United States and Canada. This survey is used to establish a Waterfowl Population Status Report annually. In addition, the number of waterfowl hunters and resulting harvest are closely monitored through both the Harvest Information Program and the Parts Collection Survey. Since 1995, such information has been used to support the adaptive harvest management (AHM) process for setting duck-hunting regulations. Under AHM, a number of decision-making protocols determine the choice (package) of predetermined regulations (appropriate levels of harvest) that constitute the framework offered to the states that year. Each state's wildlife commission then selects season dates, bag limits, shooting hours, and other options from the Flyway package.

Their selections can be more restrictive but not more liberal than AHM allows. Thus, the level of hunting opportunity afforded each state depends on the annual status of waterfowl populations.

Season dates and bag limits for national wildlife refuges open to hunting are never longer or larger than state regulations. In fact, season dates and bag limits may be more restrictive than the state allows. Each national wildlife refuge considers the cumulative impacts to hunted migratory species through the Migratory Bird Hunting Frameworks published annually in the Service's regulations on migratory bird hunting.

According to Raftovich et al. (2011) total waterfowl harvest in Oregon during 2009-2010 was estimated at 464,500 out of a total Pacific Flyway harvest of 3,458,700, or approximately 13 percent of the flyway total. It is estimated that refuge youth hunters will annually harvest approximately 144 waterfowl. The total estimated annual harvest will be less than 1/10 of one percent of the Oregon and Pacific Flyway harvests.

The cumulative effects of disturbance to nonhunted birds and other species under the CCP are expected to be minor. Hunting seasons will not coincide with the nesting season; thus, reproduction will not be reduced by hunting. Disturbance to foraging or resting migrating or resident birds might occur, but will be minor because of the small amount of area allowed for these hunts relative to the size of the refuge and the limited time parameters for hunting. Disturbance to other taxa will be unlikely or negligible. Encounters with reptiles and amphibians in the early fall will be few and should not have cumulative negative effects on reptile and amphibian populations. Refuge regulations further mitigate possible disturbance by hunters to nonhunted wildlife. Vehicles will be restricted to roads, and the harassment or taking of any wildlife other than the game species legal for the season will not be permitted.

Hunting has the potential to disturb refuge visitors engaged in other priority public uses, and mitigation measures to avoid user conflict will be undertaken. For example, the youth waterfowl hunt will be conducted on the Riverboat Unit, a location that is not open to other public uses.

Waterfowl hunting opportunity helps to better provide a priority public —big sixl use, and this use is currently not provided at the refuge. Providing opportunities for youth is an important initiative in the Service and helps address a public desire to see more hunting opportunities for youth.

There could be some indirect beneficial impacts from implementing a hunting program on the refuge. Refuge hunting can contribute to wildlife and habitat conservation and provide educational and sociological benefits. The hunting community in general remains the largest support base for funding land acquisitions in the Refuge System through the purchase of Duck Stamps. Refuges provide an opportunity for a high-quality waterfowl hunting experience to all citizens regardless of economic standing. Many individual refuges have developed extensive public information and education programs bringing hunters into contact with refuge activities and facilitating awareness of wildlife issues beyond hunting.

#### ***Summary of Effects:***

The Service concludes that hunting on the Tualatin River National Wildlife Refuge, as planned under the CCP, will not have a significant impact on local, regional, or Pacific Flyway waterfowl populations because the percentage likely to be taken on the refuge, though possibly

additive to existing hunting take, will be a tiny fraction of estimated populations. In addition, overall populations will continue to be monitored and future harvests will be adjusted as needed under the existing flyway and state regulatory processes.

This hunt will not add to cumulative impacts to waterfowl stemming from hunting on national wildlife refuges. Several points support this conclusion: 1) the proportion of the national waterfowl harvest that occurs on national wildlife refuges is only 6 percent (USDOI 2009); 2) there are no waterfowl populations that exist wholly and exclusively on national wildlife refuges; 3) annual hunting regulations within the United States are established at levels consistent with the current population status; 4) refuges cannot permit more liberal seasons than provided for in Federal frameworks; and 5) refuges purchased with funds derived from Federal Duck Stamps must limit hunting to 40 percent of the available area.

### **Public Review and Comment:**

Various opportunities were provided for the public to engage with the planning process. Appendix K details public involvement undertaken during development of the CCP. Written comments on the draft CCP/EA, which included this compatibility determination, were collected during the public comment period.

### **Determination (check one below):**

Use is Not Compatible

Use is Compatible with Following Stipulations

### **Stipulations Necessary to Ensure Compatibility:**

- Hunting will be conducted in accordance with all Federal, state, and refuge-specific regulations.
  - Only ducks, geese, and coots may be taken in accordance with state regulations. Hunting will only be allowed from established blinds or blind sites.
- The hunting program will be conducted as outlined in Chapter 2 of the CCP and follow a step-down hunting management plan.
- Hunting program leaflets and 50 Code of Federal Regulations [CFR] 32 will be updated as necessary.
- Law enforcement patrols will be conducted on a regular basis to ensure compliance with state, Federal, and refuge regulations.
- The refuge will ensure safety and minimize conflict with other priority public uses by providing information about hunting boundaries and seasons to the general public and those engaging in other refuge programs. Information will be provided at interpretive kiosks,
  - on the refuge website, and in refuge offices.
- Camping,
  - overnight use, and fires will be prohibited. Habitat will be managed for the benefit of wildlife.

**Justification:**

Under the National Wildlife Refuge System Administration Act of 1966, as amended, hunting is a wildlife-dependent recreational activity, which receives enhanced consideration in the CCP planning process and is to be encouraged on national wildlife refuges if compatible with refuge purposes. This refuge hunting program is designed to provide a high-quality, safe experience, with a reasonable opportunity to harvest waterfowl. Despite the direct and indirect impacts associated with waterfowl

hunting, waterfowl populations are unlikely to be affected significantly by the hunting program. Waterfowl population objectives and allowable harvests are determined on a flyway basis using an established annual regulatory process as described above. Limited hunt seasons and days, no-hunt zones, and established winter sanctuary on the majority of the acreage of the Tualatin River National Wildlife Refuge ensure that wintering and migrating waterfowl, as well as non-target species, find adequate food and rest areas on the refuge even during the hunting season.

In addition, by respecting seasons and limits, purchasing all required licenses, and paying Federal excise taxes on hunting equipment and ammunition, individual hunters make a big contribution toward ensuring the future of many species of wildlife and habitat for the future. By paying the Federal excise tax on hunting equipment, hunters are contributing hundreds of millions of dollars for conservation programs that benefit many wildlife species, both hunted and nonhunted. Each year, nearly \$200 million in hunters' Federal excise taxes are distributed to state agencies to support wildlife management programs, the purchase of lands open to hunters, and hunter education and safety classes. Since 1934, the Service has spent more than \$1 billion Migratory Bird Conservation Fund dollars from sales of Federal Duck Stamps (USFWS 2011d). Proceeds from the Federal Duck Stamp, a required purchase for adult hunters of migratory waterfowl, have purchased more than five million acres of important waterfowl habitat, including land in the Tualatin River NWR. These lands support waterfowl and many other wildlife species, and are often open to hunting (USFWS 2011e). Thus, allowing waterfowl hunting under the stipulations described above will not materially detract from or interfere with the purposes for which the refuge was established or the refuge mission.

**Mandatory 10- or 15-Year Re-evaluation Date (provide month and year for "allowed" uses only):**

2028 Mandatory 15-year re-evaluation date (for wildlife-dependent public uses)

       Mandatory 10-year re-evaluation date (for all uses other than wildlife-dependent public uses)

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**Signatures:**

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