The U.S. Fish and Wildlife Service (USFWS; Service) is proposing to expand hunting opportunities for waterfowl at the Baskett Slough National Wildlife Refuge (Refuge; NWR) in accordance with the 2011 Hunt Plan for the Willamette Valley NWR Complex (USFWS 2011a), the 2012 Baskett Slough Supplemental Environmental Assessment (EA) for the Waterfowl Hunt Program (USFWS 2012), and the 2011 Compatibility Determination for Waterfowl Hunting, which was prepared concurrently with the Comprehensive Conservation Plan and Environmental Assessment (CCP-EA) for the Willamette Valley National Wildlife Refuge Complex (USFWS 2011b). The area open to September Canada goose hunting would be expanded and modified.

Within the spirit and intent of the Council on Environmental Quality's regulations for implementing the National Environmental Policy Act (NEPA), and other statutes, orders, and policies that protect fish and wildlife resources, I have established the following administrative record and determined that the following proposed action is categorically excluded from NEPA documentation requirements consistent with 40 CFR 1508.4, 43 CFR 46.205, and 516 DM 8.5.

The Service has fully satisfied the other requirements for expanding this opportunity on the Refuge, including:

- determining that the opportunities are compatible with the purposes for which the Refuge was established and the mission of the National Wildlife Refuge System (see attached Compatibility Determination);
- ensuring the opportunities are consistent with existing state, local, and Refuge-specific regulations (50 CFR § 32);
  *Use of signs and brochures may supplement the Refuge-specific regulations
- complying with the National Environmental Policy Act;
- complying with the Endangered Species Act section 7 evaluation; OR
  □ not applicable because there are no threatened or endangered species present;
- complying with the National Historic Preservation Act section 106 consultation; OR
  □ not applicable because there are no cultural or historic resources present;

Signature ________________________________ Date: ___________
Title ________________________________

Edward Pausch

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Acting Project Leader
CATEGORICAL EXCLUSION

Proposed Action: The Service is proposing to expand recreational hunting opportunities for waterfowl (Western Canada geese, *Branta Canadensis moffitti*) on the Baskett Slough National Wildlife Refuge, Oregon. We would expand waterfowl hunting opportunities by expanding the area open to September Canada goose hunting from the 856 acres (34 percent of the Refuge) proposed in the 2012 Supplemental EA for the Waterfowl Hunt Plan, to 1059 acres (40 percent of the Refuge). The increase in acres represents 134 additional acres of croplands that would be open to Canada goose hunting. The proposed action represents a minor change in the amount or type of public use on Service or state-managed lands, and is in accordance with existing regulations, management plans, and procedures. Environmental effects related to recreational waterfowl hunting were analyzed in the Comprehensive Conservation Plan and Environmental Assessment for the Willamette Valley National Wildlife Refuges (CCP-EA) (USFWS 2011b) and the Supplemental Environmental Assessment for the Baskett Slough NWR waterfowl hunt program (USFWS 2012). Waterfowl hunting was found to be compatible with refuge purposes and the mission of the National Wildlife Refuge System (see Compatibility Determination for Waterfowl Hunting in USFWS 2011b).

Categorical Exclusion: These proposed actions are covered by the following categorical exclusion: 516 DM 8.5 B (7): Minor changes in the amounts or types of public use on Service or state-managed lands, in accordance with existing regulations, management plans, and procedures.

Discussion: An action by the Service that only results in “minor changes in the amounts or types of public use on Service or state-managed lands, in accordance with existing regulations, management plans, and procedures” is categorically excluded from further NEPA analyses, because it has been determined to be a class of action which does not individually or cumulatively have a significant effect on the human environment (516 DM 8.5 B (7)).

Under the Refuge’s Waterfowl Hunting Plan (USFWS 2011a), hunting of ducks and geese is allowed on 856 acres of the Refuge, 6 days of the year (2 days during the State youth waterfowl season, and 4 days during the State early dark goose season). In 2013, the Refuge was formally opened to duck and goose hunting. Hunting during the State youth waterfowl hunting season was allowed on 498 acres of wetlands, while hunting during the State September Canada goose season was allowed on 856 acres, which included both the 498 acres of wetlands, and 358 acres of crop fields (Map 1). Under the 2011 Hunt Plan, both youth and September goose hunters were required to obtain a refuge waterfowl hunting permit using the Waterfowl Lottery Application (FWS Form 3–2355) and hunt from designated blinds. Blinds would be assigned by random drawing. Up to five parties of youth hunters were allowed to hunt from five designated sites per day during the youth hunt season, while up to ten parties per day were allowed to hunt during the September Canada goose season.

In 2016, the Service prepared a minor amendment to the 2011 Hunt Plan, which addressed only the youth waterfowl hunt. Under this plan, the area open to hunting during the State youth waterfowl hunting season was expanded from 498 acres to 597 acres (later mapping corrections adjusted this to 567 acres, or 21 percent of the Refuge). In 2017, refuge-specific hunting regulations were amended to increase the age limit for youth hunters (from age 15 to 17) and clarify permit requirements for youth hunters. The Refuge youth waterfowl hunt was first implemented in the 2018-19 season. Although the Refuge was opened to September Canada goose hunting in 2013, this hunt has not been implemented to date.
The Service proposes to implement the September Canada goose hunt, and expand the acres proposed for this hunt from 856 acres (567 acres of wetlands and 358 acres of crop fields), or 34 percent of the Refuge, described in the 2012 SEA (as amended by the 2016 Hunt Plan), to 1,059 acres (567 acres of wetlands and 492 acres of crop fields), or 40 percent of the Refuge. 1,612 acres would remain closed to all hunting. The September Canada goose hunt would be in line with the State season (9 days, generally starting the second Saturday in September), bag limits, and regulations for the ODFW Northwest Zone. No special Refuge permit would be required for the September Canada goose hunt. Free-roam hunting would be allowed in the 1,059 acres open to September Canada goose hunting; however, consistent with Refuge-specific regulations, hunters are required to space themselves no less than 200 yards (183 meters) apart from each other.

Hunting within the Refuge will be consistent with Federal and Oregon Department of Fish and Wildlife hunting regulations. The Baskett Slough NWR waterfowl hunt areas are accessible by foot access from five parking areas (Smithfield Road, Colville Road, Highway 22, and Refuge headquarters) and via public use trails (Map 1). Hunters would be informed of no hunt zones and regulations via posted signs, brochures, and online resources.

The expansion of the hunting season on the refuge provides a quality hunting experience that meets Refuge guidelines and policies and provides sufficient wildlife sanctuary, while aligning hunting seasons with the State’s September Canada goose season and assisting the State at meeting population management objectives for Western Canada geese.

**Extraordinary Circumstances (43 CFR 46.215):**

**Could This Proposed Action:**

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Have a disproportionately high and adverse effect on low income or minority populations (EO 12898).

Limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (EO 13007).

Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and EO 13112).

Have material adverse effects on resources requiring compliance with Executive Order 11988 (Floodplain Management), Executive Order 11990 (Protection of Wetlands), or the Fish and Wildlife Coordination Act?

(If any of the above exceptions receive a “Yes” check (X), an EA/EIS must be prepared.)

There are five federally ESA-listed threatened bird and mammal species where the current species ranges overlap with Baskett Slough NWR: the marbled murrelet (T), northern spotted owl (T), Pacific marten (T), streaked horned lark (T), and yellow-billed cuckoo (T). The federally ESA-listed endangered Fender’s blue butterfly’s (E) current range also overlaps with the Baskett Slough NWR. The range of the monarch butterfly, a Federal candidate species, also overlaps with the Refuge. An ESA Section 7 consultation has been prepared (Attachment 1).

The Refuge does not contain critical habitat for the marbled murrelet, northern spotted owl, Pacific marten, and yellow-billed cuckoo. The Refuge does not contain suitable habitat for marbled murrelet, northern spotted owl, and Pacific marten; and these species have never been documented on the Refuge. Therefore, waterfowl hunting would have no effect to the marbled murrelet, northern spotted owl, and Pacific marten.

The Refuge contains critical habitat for streaked horned lark and Fender’s blue butterfly. Fender’s blue butterflies are found on upland prairies on Baskett Butte and other remnant prairie habitat, which are not in the hunt area. No hunting activity would occur in locations supporting Fender’s blue butterfly. Fender’s blue butterfly larvae would be in diapause during the September waterfowl hunting season and therefore would not be disturbed by hunting noise. Therefore, expanding the area where September Canada goose hunting may occur may affect, but is not likely to adversely affect, Fender’s blue butterfly. Although a portion of the hunt area overlaps with critical habitat for this species, no plant species used by Fender’s blue butterfly as larval host plants occur within the hunt area, and few if any plants used by adult Fender’s blue butterflies for nectaring occur within the hunt area. Therefore, there would be extremely little to no use of this area by adult Fenders blue butterfly for nectaring or dispersal. Therefore, waterfowl hunting may modify, but is not likely to destroy or adversely modify, critical habitat for the Fender’s blue butterfly.

Streaked horned lark breed and winter in the Willamette Valley, and occur on Baskett Slough NWR. They are most likely to occur on open agricultural lands, prairies, and roadsides. The streaked homed lark occurs in locations that would be open to waterfowl hunting, and therefore may be disturbed by hunting activity. However, breeding/nesting activities are over at the time of the hunts (September) and there is abundant other suitable habitat (short-stature grassland and mudflats adjacent to wetlands) available to meet its foraging needs during the hunt period. Moreover, the limited number of hunting days limits disturbance impacts to streaked horned lark. Therefore, expanding the area where September Canada goose hunting may occur may affect, but is not likely to adversely affect the streaked horned lark; and waterfowl hunting may modify, but is not likely to destroy or adversely
modify, critical habitat for the streaked horned lark.

Four listed plant species occur on the Baskett Slough NWR: Willamette daisy (E), Kincaid’s lupine (Threatened), Nelson’s checkermallow (Threatened), and golden paintbrush (Threatened). Willamette daisy, Kincaid’s lupine, and golden paintbrush occur in upland prairie habitat on Baskett Butte, which lies outside of the hunt area. The Refuge contains critical habitat for Willamette daisy. Nelson’s checkermallow is found on wetland edges, ditchbanks and roadside edges, depressions, and wet prairies across the refuge, and therefore may occur within the hunt area. However, waterfowl hunting is unlikely to pose more than a negligible impact to threatened and endangered plant species. No hunting activity would occur in locations supporting Willamette daisy, golden paintbrush, and Kincaid’s lupine. Some trampling of areas supporting Nelson’s checkermallow could occur along wetland edges, dikes, and ditches, but impacts to soils and vegetation from trampling would be negligible due to the limited number of people walking in the hunt zones (low number of users and days of use expected). In addition, plants will have set seed and are largely senesced by the beginning of hunting season, such that they are not vulnerable to damage this time of year (occupied sites are generally mowed in September). Therefore, expanding the area where September Canada goose hunting may occur waterfowl hunting may affect, but is not likely to adversely affect, golden paintbrush, Kincaid’s lupine, Nelson’s checkermallow, and Willamette daisy. Waterfowl hunting may modify, but is not likely to destroy or adversely modify, critical habitat for the Willamette daisy.

The Baskett Slough NWR does not contain suitable large blocks of riparian habitat required by yellow-billed cuckoo for breeding and migration, and this species has never been observed on the Refuge. Yellow-billed cuckoos are unlikely to occur on the Baskett Slough NWR during the September Canada goose and youth waterfowl hunt seasons, but may potentially occur there. They are primarily seen in forested riverine habitat during migration. In the unlikely event that a transient yellow-billed cuckoo was present in September, hunter presence and gunshot noise could disturb cuckoos. However, any potential effects to cuckoos would be insignificant because they most likely fly to adjacent habitat if disturbed, with no long-term effects to behavior. Expanding the area where goose hunting may occur therefore may affect but is unlikely to adversely affect yellow-billed cuckoo.

The Service has determined that expanding the area for recreational waterfowl hunting is the type of undertaking that does not have the potential to cause effects on historic properties (36CFR800.3.a.1. the implementing regulations of Section 106 of the National Historic Preservation Act - NHPA). No ground disturbing activities are proposed and opening the area would not alter, directly or indirectly, any characteristic of a historic property. The undertaking may proceed without further consideration of NHPA Section 106.

References


Within the spirit and intent of the Council of Environmental Quality's regulations for implementing the National Environmental Policy Act (NEPA) and other statutes, orders, and policies that protect fish and wildlife resources, I have established the following administrative record and have determined:

- The proposed action is covered by a categorical exclusion as provided by 43 CFR §46.210 or 516 DM 8.5. No further NEPA documentation will therefore be made.
- An Extraordinary Circumstance (43 CFR 46.215) could exist for the proposed action and, so an EA/EIS must be prepared.

Service signature approval:

Signature ___________________________ Date: ____________

EDWARD PAUSCH

Title Acting Project Leader

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9/2/2022
Endangered Species Act Section 7 Consultation Form
For
Waterfowl Hunting at Baskett Slough National Wildlife Refuge

Refuge Name: Baskett Slough National Wildlife Refuge  
Address: 10995 Highway 22, Dallas OR 97338  
Phone: (503) 623-2749

Refuge Action: Baskett Slough National Wildlife Refuge (NWR/Refuge) is proposing to expand the area open to early season dark goose hunting in accordance with existing State, local, and refuge-specific regulations (50 CFR 32).

Part 1

1. Project Overview

1. Project Location

   Baskett Slough NWR is accessed via Peoria Road, Peoria, Polk County, OR

2. Description of the Proposed Action

   The U.S. Fish and Wildlife Service (Service) is undergoing a cooperative effort with the Oregon Department of Fish and Wildlife (ODFW) to implement the early season dark goose hunt on Baskett Slough NWR, expand the area open to hunting, and bring regulations for the early goose hunt in line with State regulations. Waterfowl hunting would occur in September only. The youth hunt would occur one weekend/year, generally the last weekend in September; and the September Canada goose hunt would occur for 9 days in September, generally from the second Saturday through the third Sunday. Therefore, the Refuge would be open to waterfowl hunting for a total of 11 days in September. The early season dark goose hunt would occur on 1,059 acres (567 acres of wetlands and 492 acres of crop fields), or 40 percent of the Refuge. 1,612 acres would remain closed to all hunting. Dark goose hunting would be allowed in line with the State early dark goose seasons, bag limits, and regulations for the ODFW Willamette Hunt Unit. No special Refuge permit would be required to for the early season dark goose hunt. Free-roam hunting would be allowed in the 1,059 acres open to early season dark goose hunting; however, consistent with Refuge-specific regulations, hunters are required to space themselves no less than 200 yards (183 meters) apart from each other. The proposed hunts would provide visitors with recreational opportunities to pursue waterfowl in an area where there are limited opportunities to hunt on public lands. Non-toxic shot is required for waterfowl hunting.

   The proposed hunt is an expansion of waterfowl hunting that currently occurs on the Refuge. An amendment to the Hunting Plan for the Willamette Valley National Wildlife Refuge Complex and Compatibility Determination have been prepared.
3. Project Timeline

Baskett Slough NWR was opened to waterfowl hunting in 2013. The youth waterfowl hunt was implemented in 2018. An early season dark goose hunt would be implemented in the Fall of 2023.

4. Federally Listed Species and Critical Habitat

Baskett Slough NWR uses the IPaC database (Information for Planning and Conservation) to identify threatened and endangered species, including for purposes of this Biological Evaluation. This is done because the IPaC database contains the best available information on species presence for Baskett Slough NWR. Nevertheless, in order to ensure a thorough review, this Biological Evaluation considers all threatened and endangered species identified by both the IPaC and ECOS (Environmental Conservation Online) databases. Note, however, that these databases are updated regularly, approximately every 90 days, and, thus, it is possible that the specific threatened and endangered species identified as present on or near the refuge may change between the finalization of this Biological Evaluation and its publication and/or between finalization and your reading of this document.

Refuge staff have the best available information about the presence of fish and wildlife species. Thus, where species are identified by either database, but the refuge has information that the species is not actually present within the “action area,” we have explained that as the basis for our determination that any hunting and fishing activities will have no effect on the species.

We understand that reinitiation of consultation is required when discretionary Federal agency involvement or control over the action has been retained (or is authorized by law), and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affected listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designate that may be affected by the action.

A. Listed species and/or their critical habitat:

Fender’s blue butterfly (*Icaricia icarioides fenderi*), Endangered, critical habitat on the Refuge
Kincaid’s lupine (*Lupinus sulphureus ssp. Kincaidii*), Threatened, no critical habitat on the Refuge
Golden paintbrush (*Castilleja levisecta*), Threatened, no critical habitat designated
Marbled murrelet (*Brachyramphus marmoratus*), Threatened, no critical habitat on the Refuge
Nelson’s checker-mallow (*Sidalcea nelsoniana*), Threatened, no critical habitat designated
Northern spotted owl (*Strix occidentalis caurina*), Threatened, no critical habitat on the Refuge
Pacific marten (Martes caurina), Threatened, no critical habitat on the Refuge
Streaked horned lark (Eremophila alpestris strigata), Threatened, critical habitat on the Refuge
Willamette daisy (Erigeron decumbens), Endangered, critical habitat on the Refuge
Yellow-billed cuckoo (Coccyzus americanus), Threatened, no critical habitat on the Refuge

B. Proposed species and/or proposed critical habitat:
None

C. Candidate species¹:
Monarch butterfly (Danaus plexippus)

II. Effects Determination and Response Requested:

Determination

A. no effect to species/critical habitat

Marbled murrelet (Brachyramphus marmoratus): Marbled murrelet was listed as threatened in 1992 (USFWS 1992). A recovery plan for the species was completed in 1997 (USFWS 1997a). The murrelet’s current range is along the Pacific coast from central California to Canada. The marbled murrelet nests in old growth coastal forests. However, the refuge does not contain suitable habitat for marbled murrelet, and the species has never been documented on the Refuge. Therefore, waterfowl hunting would have no effect to the marbled murrelet.

Critical Habitat: No critical habitat present.

Northern spotted owl (Strix occidentalis caurina): Northern spotted owl was listed as threatened in 1990 (USFWS 1990). A revised recovery plan for the species was completed in 2011 (USFWS 2011). Northern spotted owl’s habitat requirements include mature old growth forests for nesting, roosting, and foraging. The owl’s current range is mature forests throughout the Pacific Northwest. However, the refuge does not contain suitable habitat for northern spotted owl, and the species has never been documented on the Refuge. Therefore, waterfowl hunting would have no effect to the northern spotted owl.

Critical Habitat: No critical habitat present.

Pacific marten (Martes caurina): The coastal Distinct Population Segment (DPS) of the Pacific marten was listed as threatened in 2020 (USFWS 2020a). Critical habitat was designated in 2021 (USFWS 2021). The marten’s habitat requirements include mature old-growth forests. The current species range of the Pacific marten overlaps with Baskett Slough NWR. However, the Refuge does not contain suitable habitat for Pacific marten, and this species has never been

¹ Include state-listed species here if they are to be evaluated through the Section 7 consultation.
documented on the Refuge. Therefore, waterfowl hunting would have no effect to the Pacific marten.

**Critical Habitat:** No critical habitat present.

**Effects of Ammunition to Listed Species:** The proposed waterfowl hunting would require the use of non-lead ammunition, as is required for all waterfowl hunting nationwide. Thus, there would be no effects from lead associated with the proposed activity to any of the above species.

**B. may affect, but is not likely to adversely affect species/ critical habitat; or may affect, but is not likely to jeopardize candidate species**

**Species:**

**Fender’s blue butterfly (Icaricia icarioides fenderi):** Fender’s blue butterfly was listed as endangered in 2000 (USFWS 2000). A recovery plan for this species was completed in 2010 (USFWS 2010). The butterfly’s current range is throughout the Willamette Valley in prairie habitat. It has specific habitat requirements, including the presence of its larval host plants The Fender’s blue butterfly uses *Lupinus sulphureus* ssp. *kincaidii* (Kincaid’s lupine), *L. arbustus* (spurred lupine), and *L. albicaulis* (sickle-keeled lupine) as larval host plants. Adult Fender’s blue butterflies require several forbs for nectar, including native wild onions, mariposa lilies, checker-mallows, and sunflowers; and non-native vetch species. Baskett Slough has a small population of Kincaid’s lupine on Baskett Butte, but many plants are thought to be hybridized with spurred lupine (Kaye pers. comm. in USFWS 2011). On Baskett Slough NWR, Fender’s blue butterflies are almost entirely dependent on spurred lupine as the larval host plant (USFWS 2011).

Adult butterflies begin laying their eggs on lupine leaves during the month of May. Once the larvae hatch, the caterpillars feed briefly until the plants begin to senesce in early July. At that time, they drop to the base of the plants and enter diapause (a stage in the butterfly’s life when its growth and development are suspended) for the fall and winter. In February or March, the larvae come out of diapause and continue their development. The larvae then enter their pupal stage and subsequently emerge as adult butterflies in May (Black and Vaughan 2005). Therefore, Fender’s blue butterflies would be in the larval stage and in diapause during the hunting season (September). They would be located at the base of senesced lupine plants. Since the larvae would be in a dormant state, they would not be disturbed by any potential gunshot noise. Although the proposed waterfowl hunting would occur within ¼ mile of prairie habitat where spurred lupine, Kincaid’s lupine, and their hybrids occur, hunters do not need to traverse this habitat to access hunt areas. Therefore, no hunting activity would occur in locations supporting Fender’s blue butterfly, or its host plants, spurred and Kincaid’s lupine. As a result, it is extremely unlikely that a waterfowl hunter would encounter or disturb either Fender’s blue butterfly larvae or spurred and Kincaid’s lupines. Accordingly, any potential effects to Fender’s blue butterfly or its host plants from the proposed action are considered discountable. Therefore, the proposed waterfowl hunting may affect, but is not likely to adversely affect, Fender’s blue butterfly.
**Critical Habitat:** Critical habitat present. Two units of critical habitat for Fender’s blue butterfly overlap with Baskett Slough NWR (units FBB-4A and 4B, comprising 1,164 acres total). Approximately 64% of this acreage (745 acres) lies within the Refuge, with the remainder on private lands adjacent to the Refuge (USFWS 2006). Approximately 90 percent of the Refuge’s critical habitat for Fender’s blue butterfly lies on Baskett Butte, outside of the hunt area. Approximately 75 acres of agricultural fields and seasonal wetlands south of Morgan Lake are included in the critical habitat and overlap with the current youth hunting area and proposed September goose hunting area. These fields do not contain suitable habitat for larval host plants and therefore are not used by Fender’s blue butterfly for reproduction. These areas also do not support native prairie vegetation. Plants used for nectaring, such as non-native vetch, would be unlikely to occur. Therefore, there would be extremely little to no use of this area by adult Fenders blue butterfly for nectaring or dispersal. Therefore, waterfowl hunting may modify, but is not likely to destroy or adversely modify, critical habitat for the Fender’s blue butterfly.

**Golden paintbrush (Castilleja levisecta):** Golden paintbrush was listed as threatened in 1997 (USFWS 1997b). A recovery plan for the species was completed in 2000 (USFWS 2000b). The current range for the Golden paintbrush is the throughout the Puget Trough and the Willamette Valley in open grasslands on glacial outwash prairies. The species does not tolerate shade from trees, shrubs, or other tall native plant species. This plant species occurs on the Refuge. Golden paintbrush occurs in upland prairie habitat on Baskett Butte, which lies outside of the hunt area. Although hunters generally have the potential to trample plants, it is extremely unlikely that a waterfowl hunter would encounter golden paintbrush plants, and even if they did, the potential impact would be insignificant because the plants will have set seed and are largely senesced by the beginning of hunting season, such that they are not vulnerable to damage this time of year. However, as mentioned, no hunting activity would occur in locations supporting golden paintbrush. Although upland prairie habitat occurs within ¼ mile of prairie habitat where golden paintbrush occurs, hunters do not need to traverse this habitat to access hunt areas. Therefore, the proposed waterfowl hunting may affect, but is not likely to adversely affect, golden paintbrush plants.

**Critical Habitat:** No critical habitat designated.

**Kincaid’s lupine (Lupinus sulphureus ssp. Kincaidii):** Kincaid’s lupine was listed as threatened in 2000 (USFWS 2000a). A recovery plan for the species was completed in 2010 (USFWS 2010). The current range of Kincaid’s lupine is throughout the Willamette Valley and into southern Washington in upland prairie habitat. This plant species occurs on the Refuge, but Kincaid’s lupine will have set seed and are largely senesced by the beginning of the hunting season in September. Kincaid’s lupine occurs in upland prairie habitat on Baskett Butte, which lies outside of the hunt area. Although upland prairie habitat occurs within ¼ mile of prairie habitat where Kincaid’s lupine occurs, hunters do not need to traverse this habitat to access hunt areas. Therefore, no hunting activity would occur in locations supporting Kincaid’s lupine, and it is extremely unlikely that a waterfowl hunter would encounter or disturb Kincaid’s lupines. Accordingly, any potential effects to Kincaid’s lupine from the proposed action are considered discountable. Therefore, the proposed activities may affect, but are not likely to adversely affect, Kincaid’s lupine.
Critical Habitat: No critical habitat present.

Nelson’s checker-mallow (*Sidalcea nelsoniana*): Nelson’s checker-mallow was listed as threatened in 1993 (USFWS 1993). An updated recovery plan for the species was completed in 2010 (USFWS 2010). The current range of Nelson’s checker-mallow is open wet areas of meadows and remnant prairies in the Willamette Valley, Oregon Coast Range, and southwestern areas of the Puget Trough. This plant species occurs on the Refuge. Nelson’s checker-mallow is found on wetland edges, ditchbanks and roadside edges, depressions, and wet prairies across the refuge, and therefore may occur within the hunt area. However, any potential impacts from waterfowl hunting to Nelson’s checker-mallow are expected to be insignificant because plants will have set seed and are largely senesced by the beginning of hunting season, such that they are not vulnerable to damage this time of year. Although a small amount of trampling of areas supporting Nelson’s checker-mallow could occur along wetland edges, dikes, and ditches, any potential impacts to soils and vegetation from trampling are expected to be insignificant due to the small number of hunt days (11 days per year) and the limited number of people walking in the hunt zones (low number of users and days of use expected). Therefore, waterfowl hunting may affect, but is not likely to adversely affect, Nelson’s checker-mallow.

Critical Habitat: No critical habitat designated.

Streaked horned lark (*Eremophila alpestris strigata*): The streaked horned lark was listed as threatened in 2013 (USFWS 2013). A recovery plan for this species was completed in 2019 (USFWS 2019). Streaked horned lark is endemic to the Pacific Northwest. Historically, the species ranged from southern British Columbia to grasslands throughout Oregon. The streaked horned lark’s current range is now limited to the Puget lowlands in Washington, Washington coast, lower Columbia River, and the Willamette Valley in Oregon. The bird prefers open habitat with no trees and few shrubs. They prefer to breed in habitats dominated by grasses and forbs which historically were found along the coast and the Columbia and Willamette River valleys in native prairie and dune habitats. As these habitats have become rarer, streaked horned larks have been observed nesting and wintering in various open treeless areas including agricultural fields, pastures, gravel roads, dredge spoils, and airports.

Streaked horned lark breed and winter in the Willamette Valley, and are known to occur on Baskett Slough NWR. They are most likely to occur on open agricultural lands, prairies, and roadsides. The streaked horned lark occurs on the Refuge during the hunt season, in open fields that would be open to waterfowl hunting, and therefore may experience some disturbance from hunting activity (human presence and gunshot noise). If disturbed by hunters, larks would be expected to fly to adjacent habitat, with no long-term effects to their behavior, as they would if disturbed by predators or other natural disturbances. There is abundant other grassland available to meet the foraging needs of streaked horned larks during the hunt period. The limited number of hunting days (11 days per year) further limits any potential insignificant disturbance impacts to streaked horned lark. Waterfowl hunting would not affect breeding and nesting for streaked horned lark, since young would have fledged by the time the hunt season begins (September). Therefore, waterfowl hunting may affect, but is not likely to adversely affect the streaked horned lark.
Critical Habitat: Critical habitat present. Critical habitat was designated for streaked horned lark at four sites on the outer coast of Washington, nine islands in the lower Columbia River (2,900 acres total), and 1,729 acres on three units of the Service’s Willamette Valley National Wildlife Refuge Complex (the Ankeny, Baskett Slough and William L. Finley units; U.S. Fish and Wildlife Service 2013b, entire). Grasslands, both rare native prairies and grass seed fields, are important habitats for streaked horned larks in the Willamette Valley; open areas within the grasslands are used for both breeding and wintering habitat. Larks mainly use the refuges’ agricultural fields, during both the breeding and winter seasons, and most of the critical habitat designations on the Refuge Complex are on agricultural lands that produce green forage for wintering Canada geese (U.S. Fish and Wildlife Service 2016, p. 3). Baskett Slough NWR contains 1,006 acres of critical habitat for the streaked horned lark, including 181 acres of agricultural fields north of Morgan Lake, and 825 acres of agricultural fields and wetlands in the southern part of the Refuge. The proposed September goose hunt would include a portion of Field 2N north of Morgan Lake, and approximately half of agricultural fields and seasonal wetlands in the southern part of the Refuge.

Most of the refuge agricultural fields preferred by streaked horned larks on Baskett Slough NWR are also high use wintering Canada goose areas. These agricultural fields are managed through the Refuge’s cooperative farming program to provide sustained green forage for Canada and cackling geese from October through April (USFWS 2011). The presence of a small number of goose hunters in agricultural fields for 9 days in September would result in minor trampling of vegetation in grass fields, but this impact is expected to be insignificant because it would not modify the open habitat characteristics (low-stature grasses and forbs, or mudflats at edges of dry wetlands) required by steaked horned larks. Therefore, waterfowl hunting may modify, but is not likely to destroy or adversely modify, critical habitat for the streaked horned lark.

Willamette daisy (*Erigeron decumbens*): Willamette daisy was listed as endangered in 2000 (USFWS 2000a). A recovery plan for the species was completed in 2010 (USFWS 2010). The Willamette daisy is endemic to the Willamette Valley and it is found in prairie habitats, specifically in bottomland alluvial soils. This plant species occurs on the Refuge. Willamette daisy occurs in upland prairie habitat on Baskett Butte, which lies outside of the hunt area. No hunting activity would occur in locations supporting Willamette daisy. Although upland prairie habitat occurs within ¼ mile of prairie habitat where Willamette daisy occurs, hunters do not need to traverse this habitat to access hunt areas. Although hunters generally have the potential to trample plants, it is extremely unlikely that a waterfowl hunter would encounter Willamette daisy, and even if they did, the potential impact would be insignificant because Willamette daisy plants will have set seed and are largely senesced by the beginning of hunting season, such that they are not vulnerable to damage this time of year. Therefore, waterfowl hunting may affect, but is not likely to adversely affect the Willamette daisy.

Critical Habitat: Critical habitat present. Baskett Slough NWR contains approximately 41.2 acres of critical habitat for Willamette daisy (Units WD–1A and 1B), approximately 0.9 mi (1.5 km) apart (USFWS 2006). The larger of these two units, Unit 1B, is located on Baskett Butte summit. Unit 1A is located north of Unit 1B, on the lower slope of the butte at the edge of mixed oak-conifer forest. The prairie habitat supporting Willamette daisy populations is currently being managed for the species. Units WD–1A and 1B contain habitat that has the features essential to
the conservation of the species because they support the only remaining viable population of Willamette daisy within Polk County, which represents the northernmost extent of the species’ range. The proposed hunting activities would occur outside critical habitat for Willamette daisy, and hunters would not traverse Willamette daisy critical habitat. Therefore, waterfowl hunting may modify, but is not likely to destroy or adversely modify, critical habitat for the Willamette daisy.

**Yellow-billed cuckoo** (*Coccyzus americanus*): The yellow-billed cuckoo was listed as threatened in 2014 (USFWS 2014). Historically, the species range included most North American riparian habitats containing willows and cottonwoods. The current range of the yellow-billed cuckoo has become limited to some remaining riparian habitats in states west of the Rockies. In Oregon, the species range is limited to parts of the Willamette Valley and parts of southern Oregon. Yellow-billed cuckoos require large blocks of riparian habitat composed of cottonwood and willow trees for nesting and foraging.

The Refuge does not contain the large blocks of suitable riparian habitat, and yellow-billed cuckoo has never been observed on the Refuge. It is possible, though unlikely, that transient cuckoos might use the Refuge’s limited willow riparian habitat during spring migration, but yellow-billed cuckoo are unlikely to occur on the Refuge in September, when waterfowl hunting occurs on the Refuge. In the unlikely event that a transient yellow-billed cuckoo was present in September, hunter presence and gunshot noise could disturb cuckoos. However, any potential effects to cuckoos would be insignificant because they most likely fly to adjacent habitat if disturbed, with no long-term effects to behavior. Cuckoos feed primarily on insects in riparian trees. Therefore, waterfowl hunters would not trample food sources or habitat required by yellow-billed cuckoos, and effects of hunting to cuckoo food sources and habitat would be insignificant. Therefore, waterfowl hunting may affect but is not likely to adversely affect the yellow-billed cuckoo.

**Critical Habitat:** No critical habitat present.

**Monarch butterfly** (*Danaus plexippus*): On December 15, 2020, the U.S. Fish and Wildlife Service announced that listing the monarch butterfly as endangered or threatened under the Endangered Species Act is warranted, but precluded by higher priority listing actions (USFWS 2020b). The decision was the result of an extensive status review of the monarch that compiled and assessed the monarch’s current and future status. The monarch is now a candidate under the Endangered Species Act. The Service will review its status annually until a listing decision is made. The Refuge lies within the spring and summer breeding range of the western population of monarch butterfly. Records of monarch butterflies in the Refuge area indicate that they are typically present in June. The host plant for monarch butterfly, showy milkweed, occurs on the Refuge, but only in small scattered patches. Therefore, breeding use of the Refuge by monarch butterfly would be expected to be low. Monarch butterflies would not be present on the refuge when waterfowl hunting takes place (September). In addition, milkweed plants will have set seed and are largely senesced by the beginning of hunting season, such that they are not vulnerable to damage this time of year. Accordingly, hunting may affect, but is not likely to jeopardize the monarch butterfly.
Effects of Ammunition. The proposed waterfowl hunting would require the use of non-lead ammunition, as is required for all waterfowl hunting nationwide. Thus, there would be no effects from lead associated with the proposed activity to any of the listed or candidate species above.

C. may affect, and is likely to adversely affect species/critical habitat
N/A

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

KENDAL MORRIS
Signature of Preparer
Date: 9/2/2022

EDWARD PAUSCH
Signature of Project Leader
Date: 9/2/2022

References


U.S. Fish and Wildlife Service. 2000a. Endangered Status for Erigeron decumbens var. decumbens (Willamette Daisy) and Fender's Blue Butterfly (Icaricia icarioides fenderi) and Threatened Status for Lupinus sulphureus ssp. kincaidii (Kincaid's Lupine). Federal Register 65 FR 3875 3890.


Use of this form is required for documenting all appropriate use findings (603 FW 1)

Refuge Name: Baskett Slough NWR

Use: Hunting (Migratory Birds)

This is a: □ New Use  □ Existing Use

A. Does this use qualify for an appropriateness review exemption?
(Please Check One)

□ This use is “protected,” “conditioned,” or otherwise provided for under law or regulation.
   Examples include the use of snow machines, airplanes, or motorboats on Alaska refuges under certain conditions per the ANILCA. Provide a written justification as to how this use qualifies for this particular exemption.

□ The Service does not have jurisdiction over the use
   This could be as a result of treaty rights, court orders, consent decrees, pre-existing rights (such as subsurface Non-Federal oil and gas or mineral rights, grandfathered easements, etc.). Provide a written justification as to how this use qualifies for this particular exemption.

□ This is a Right-of-Way Permit request
   Right-of-way requests are subject to 340 FW 3 and compatibility determinations (603 FW 2). Attach a brief explanation as to how this use qualifies for this particular exemption.

□ This use DOES NOT qualify for an appropriateness review exemption.
   Proceed to evaluate the use under Part B.

If the use meets one of the three qualifying exemptions above, then it is exempt from an appropriate use determination. Skip Parts B, C, D and E and complete Parts F and G, sign and date, and submit a copy to the Refuge Supervisor.

B. Is the use administratively determined as appropriate in law or policy?
(Please Check One)

□ This use is a wildlife-dependent recreational use.
   Hunting, Fishing, Wildlife Observation, Wildlife Photography, Environmental Education, or Interpretation.

□ This use involves the take of fish and wildlife under state/territorial regulations.
   Including other forms of state-regulated take beyond hunting and fishing.

□ This use HAS NOT been administratively determined as appropriate by statute or policy.
   Proceed to evaluate the use under Part C.

If the use meets one of the two qualifying definitions above, then it is appropriate. Complete Parts E, F, and G, sign and date, and submit a copy to the Refuge Supervisor.
C. Is the use appropriate because it contributes to the refuge's purpose(s), goals, or objectives or Refuge System mission?
(Please check one.)

Refuge managers, in their sound professional judgement, may determine a refuge use to be appropriate if it contributes to fulfilling the refuge purpose(s), goals, or objectives described in the refuge's comprehensive conservation plan, or the Refuge System mission [603 FW 1.11 (A)(2)]. Urban wildlife refuges have the additional goal of fostering environmental awareness through outreach programs and activities that develop an informed and involved populace that supports fish and wildlife conservation [110 FW 1.5].

☐ This use contributes to the refuge purpose(s), goals, or objectives, or Refuge System mission. Provide a written justification of how the use contributes to the qualifying purpose(s), goals, or objectives or Refuge System mission. Complete Parts E, F, and G, sign and date, and submit a copy to the Refuge Supervisor.

☐ This use DOES NOT contribute to refuge purpose(s), goals, objectives, or Refuge System mission. Proceed to evaluate the use under Part D.

D. Is this use appropriate?

<table>
<thead>
<tr>
<th>Decision Criteria</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Does the use comply with applicable laws and regulations (Federal, State/Territorial, tribal, and local)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) Is the use consistent with applicable Executive orders and Department and Service policies?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) Is the use consistent with public safety?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) Is the use consistent with the goals and objectives of approved management plans or other management document?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5) If this is the first time the use has been proposed or if it was previously found appropriate, check Yes. If the use was previously analyzed but denied, check No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(6) Is the use manageable within available budget and staff?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(7) Will the use be manageable in the future with existing resources? [603 FW 1.11 (A)(3)(h)]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(8) Does the use contribute to the public's understanding and appreciation of the refuge's natural and cultural resources?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(9) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality [603 FW 1.6 (D)], compatible, wildlife-dependent recreation into the future?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(10) Is the use on an urban wildlife refuge [110 FW 1.15] and/or will it help new audiences become familiar and comfortable with fish, wildlife and their habitats?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If the answer is "NO" to (1), (2), or (3), mark the use as "Not Appropriate" under Part G. If the answer is "NO" to any of (4) through (10), the use will generally be "Not Appropriate." Refuge managers may, however, check one or more of boxes (4) through (10) and still find the use "Appropriate" by providing a written justification of the finding and how the factor(s) are mitigated or of minimal effect.

Complete Parts E, F, and G, sign and date, and submit a copy to the Refuge Supervisor.
E. Consultation with State/Territorial Fish and Wildlife Agency

(Please check one.)

Refuge managers must consult with the applicable State/Territorial fish and wildlife agency when a request for a use could affect fish, wildlife, or other resources that are of concern to a State fish and wildlife agency [603 FW 1.7E(3) and 1.12].

- Consultation WAS required.
  
  Consultation took place on: 1/25/22

    Proceed to Part F.

  (Month/Date/Year)

- Consultation WAS NOT required.
  
  Proceed to Part F.

F. Is the use significantly complex or potentially controversial?

(Please check one.)

- Yes
  
  If Yes, date the Regional Chief was briefed:

    Proceed to Part G.

  (Month/Date/Year)

- No
  
  Proceed to Part G.

G. Finding

Based on my review of all relevant factors, I find the refuge use identified above:

- Exempted
- Not Appropriate
- Appropriate*

[* Includes findings that a use is administratively determined as appropriate (Section B and C) or is found appropriate through the use of the decision tool (Section D).]

EDWARD PAUSCH

Refuge Manager

Date: 9/2/22

H. Concurrence

The Refuge Supervisor MUST concur and sign a finding of "Not Appropriate" for an EXISTING use if the designation is made OUTSIDE of the Comprehensive Conservation Plan process. The Refuge Supervisor MUST concur and sign a finding of "Appropriate" for any proposed NEW use. Signature from the Refuge Supervisor WILL NOT be necessary for a finding of "Not Appropriate" with a proposed NEW use.

Refuge Supervisor

Date

*Upon signature, all fields except date, Refuge Supervisor signature and date, will be locked as "read only".

Any use found to be "Appropriate" will require the development of a compatibility determination before the use may be allowed on Refuge lands.
JUSTIFICATION FOR FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: 

Use: 

NARRATIVE:

Note: Include in the Justification narrative:

- Your reason for checking a box in Section A to exempt the use from appropriateness review.
- Your reason for determining in Section C that the use contributes to the refuge’s purpose, goals and objectives, or the Refuge System mission.
- Your reason for checking each of the boxes in Section D. Include a concise, substantive explanation as to why boxes were checked, either “YES” or “NO”, for each decision criteria. Also, for boxes (4) through (10), if any are checked “NO”, be sure to describe how the factor(s) are mitigated, or of minimal effect, if use is determined to be “Appropriate.”
Compatibility Determination

Title
Compatibility Determination for Waterfowl Hunting, Baskett Slough National Wildlife Refuge

Refuge Use Category
Hunting

Refuge Use Type(s)
Hunting (waterfowl)

Refuge
Baskett Slough 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...to conserve and protect migratory birds...and to restore or develop adequate wildlife habitat.” (Migratory Bird Conservation Act of 1929, 16 U.S.C. 715 et. seq.).

“managed primarily for dusky Canada geese...uplands managed as wildlife habitat and for watershed protection.” (MBCC Memo #3, March 25, 1965). All tracts of land acquired prior to 10/1967.

“To provide (1) feeding and resting areas for migratory waterfowl; (2) wintering range primarily for the dusky Canada goose; (3) a production habitat for several species of ducks.” (MBCC Memo #8, October, 1967). All tracts of land acquired subsequent to 10/1967.

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 2011 compatibility determination for waterfowl hunting, which was prepared concurrently with the CCP and Hunt Plan for Willamette Valley National Wildlife Refuges (USFWS 2011).

What is the use?
We propose to allow waterfowl hunting on the Refuge to enhance visitor experience. The waterfowl hunting program would include a youth hunt and September Canada goose hunt during the State seasons in crop fields and wetlands on the Refuge.

Is the use a priority public use?
Yes

Where would the use be conducted?
Waterfowl hunting would occur on specific wetlands and in crop fields. Of the 2,671 acres that comprise the Refuge (GIS estimate), 1,059 acres would be open for the September Canada goose hunt, and 567 acres for the youth waterfowl hunt. Hence, 21 percent of the Refuge would be open to waterfowl hunting for 2 days per year, and 40 percent of the Refuge would be open to waterfowl hunting for 9 days per year. This acreage does not exceed the 40 percent guideline for Refuge lands referenced above. 567 acres of Refuge wetlands, including Cackler, Dusky, Vancouver, Taverner, Parvipes, and Moffitti Marshes, and Morgan Lake would be open for both the youth waterfowl hunt and the early season dark goose hunt. 492 acres of crop fields adjacent to these wetlands would be open to early season dark goose hunting only (see map).

When would the use be conducted?
Waterfowl hunting would occur in September. The youth hunt would occur one weekend/year, generally the last weekend in in September; and the September Canada goose hunt would occur for 9 days in September, generally from the second Saturday through the third Sunday. Therefore, the Refuge would be open to waterfowl hunting for a total of 11 days in September.

How would the use be conducted?
Hunting within the Refuge will be consistent with Federal and Oregon Department of Fish and Wildlife hunting regulations. The Baskett Slough NWR waterfowl hunt areas are accessible by foot from five parking areas (Smithfield Road, Colville Road, Highway 22, and Refuge headquarters) and via public use trails. Hunters would be informed of no hunt zones and regulations via posted signs, brochures, and online resources.
Youth waterfowl hunting is by advance reservation only. Youth hunters are required to obtain a refuge waterfowl hunting permit using the Waterfowl Lottery Application (FWS Form 3–2355) and hunt from designated blinds. Applications are accepted from August 1 through the last Friday in August. Sites are assigned by random drawing. Up to five parties of youth hunters are allowed to hunt from five designated blinds per day during the youth hunt season. Blinds will be selected during check-in on the day of the hunt, in order by blind selection number. All hunting must take place within the assigned blind. A maximum of four (4) people may occupy a blind. Only two hunting youth may occupy the same blind, and must be accompanied by at least one (1) non-hunting adult 21 years of age or older. All youth hunt participants must check-in at the Hunter Check Station located at the Baskett Slough National Wildlife Refuge office (10995 Hwy 22, Dallas, OR 97338) to obtain a refuge permit that they must possess and carry. Check-in and blind selection is 1-1/2 hours before legal hunt time. Hunters must be checked out no later than 1:00 PM and must complete a harvest report.

Under the proposed amendment to the Willamette Valley NWRs Hunt Plan and Supplemental EA, no special Refuge permit would be required for the September Canada goose hunt. Free-roam hunting would be allowed in the 1,059 acres open to September Canada goose hunting; however, consistent with Refuge-specific regulations, hunters are required to space themselves no less than 200 yards (183 meters) apart from each other. A maximum of three hunters would be permitted per party. September goose hunt participants must check-in at the Hunter Check Station located at the Baskett Slough National Wildlife Refuge office (10995 Hwy 22, Dallas, OR 97338). Check-in and blind selection is 1-1/2 hours before legal hunt time. Hunters must be checked out no later than 1:00 PM and must complete a harvest report.

Facilities that would be used for the hunt include the Refuge office, which would serve as the check station, and various existing roads, vehicle pull-outs, trails, and parking lots needed for access. Hunters may use five parking areas to access hunt areas: one on Smithfield Road; two on Colville Road; one on Highway 22; and one at the Refuge office (see map). Permanent blinds would not be established for the September goose hunt; temporary blinds would be allowed to be set up by hunters with removal at the end of the hunting day. Up to 290 hunt days per year are expected to accrue in this use annually.

Why is this use being proposed or reevaluated?

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 [USDOI] 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. (2019) there were approximately 29,300±8% active waterfowl hunters in Oregon during 2018.

Opportunities to hunt in Oregon are increasingly scarce due to an ever-growing population, urbanization, and a relative lack of public lands open to these uses. Waterfowl hunting at Baskett Slough NWR was reviewed and approved as part of the Willamette Valley National Wildlife Refuges Comprehensive Conservation Plan (CCP) (USFWS 2011). Waterfowl hunting on the Refuge provide the public an opportunity to hunt in proximity to an urban area (Corvallis), in uncrowded and relatively natural environments, and at a reasonable cost.

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. Waterfowl hunting is being reevaluated due to a minor hunt expansion to implement the September Canada goose hunt, expand the area open to this hunt, and streamline regulations.

### Availability of Resources

Estimated costs for operating the waterfowl hunting program under the Willamette Valley NWRs Hunt Plan, as amended, are displayed in the following table. Recurring expenses include estimated annual salaries for recreation and maintenance personnel involved in administering the program.

<table>
<thead>
<tr>
<th>Proposed Activity or Project</th>
<th>One Time Expense ($/year)</th>
<th>Recurring Expenses ($/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop hunt opening package</td>
<td>$10,000</td>
<td>N/A</td>
</tr>
<tr>
<td>Administer Sept. Goose hunt</td>
<td>$2,000</td>
<td>$1,000</td>
</tr>
<tr>
<td>Administer Youth hunt</td>
<td>$10,000</td>
<td>$5,000</td>
</tr>
<tr>
<td>Construct hunt blinds</td>
<td>$20,000</td>
<td>$2,000</td>
</tr>
<tr>
<td>Develop new publications, signage, kiosk at Refuge office associated with new hunt</td>
<td>$6,000</td>
<td>$1,000</td>
</tr>
<tr>
<td><strong>Total One Time Expenses for the Complex ($)</strong></td>
<td><strong>$48,000</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total Recurring Expenses for the Complex ($/year)</strong></td>
<td><strong>$9,000</strong></td>
<td></td>
</tr>
</tbody>
</table>
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 CD 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

Baskett Slough 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 game birds 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 area would be beneficial to the species (National Wildlife Refuge Administration Act (16 U.S.C. §668dd(d)(l)(A)); MBTA (16 U.S.C. §703–712); Migratory Bird Conservation Act (16 U.S.C. §715a–715r)). We propose to expand the hunt area from 856 acres (34 percent of the Refuge) to 1,059 acres (40 percent of the Refuge) leaving 1,612 acres as sanctuary for migratory birds. In addition, we limit migratory bird hunting to the month of September, which is prior to the waterfowl migration peak. Therefore, 100 percent of the Refuge acts as sanctuary for migratory birds during the peak migration and wintering period.

Direct Take to Hunted Wildlife – Population Effects: Although hunting directly impacts individuals within a population, the Service and state wildlife agencies regulate hunting in concert with Canada, Mexico, and multi-state flyway councils, so that harvest does not reduce populations to unsustainable levels. The hunting of waterfowl in the United States is based upon a science-based 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.

In North America, the process for establishing waterfowl hunting regulations is conducted annually. Each year, the Service promulgates regulations establishing the Migratory Bird Hunting Frameworks, which 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 of the status of migratory game bird populations. 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 greater than state regulations and may be more restrictive than the state allows.

Short-term impacts

Direct mortality stemming from Refuge hunts: The estimated refuge duck harvest from the youth hunt is less than 100 ducks during the youth hunt. This estimated harvest represents a tiny fraction of a percent of the total midwinter population of wintering ducks in the State of Oregon and an even smaller fraction of the Pacific Flyway population.

Similarly, the number of resident Canada geese projected to be taken is less than 1,125 geese, which compared with area population is negligible. The September goose hunt would confine harvest to the Pacific Population of Western or Great Basin Canada geese (*Branta canadensis moffitti*), which are currently above population objectives in the Flyway (Subcommittee on Pacific Population Western Canada Goose 2000). The hunt would contribute to current state and federal efforts to manage this population.

At this time, dusky geese would not be impacted as they arrive later in the fall. If dusky arrival time shifted to earlier in the fall, these hunts would be re-evaluated.

Given the small amount and season of the expected take, the hunt as designed will not adversely affect the refuge’s ability to sustain optimum population levels for meeting other refuge objectives, specifically maintaining wintering populations of migratory waterfowl, and maintaining enough wildlife to provide for wildlife viewing enjoyment.

Disturbance Effects: In addition to direct take, hunting causes disturbances to feeding and resting waterfowl as well as nontarget species because of the noise (shotgun), movement, vehicular activity, and use of dogs for this activity. Studies cited by Korschgen and Dahlgren (1992) indicate that water-related activities by humans, including boating, hunting, and shoreline activities, do cause disturbance to waterfowl, manifested by alertness, fright (obvious or unapparent), flight, swimming, disablement, or death. Human disturbance can compel waterfowl to change food habits, feed only at night, lose weight, or desert feeding areas (Korschgen and Dahlgren 1992). Although disturbance from hunting is noted to have effects directly on waterfowl, US DOI (2009) concluded that hunting disturbance is of less impact than the direct mortality caused by hunting. Further, since the direct impacts of hunting cannot be clearly demonstrated to be detrimental at most population levels, then disturbance will not have any pronounced population level effects on waterfowl (US DOI 2009).
As described above, the hunt program would occur in up to 1,059 acres (40 percent of the Refuge) for nine days each year, and on up to 567 acres for two days each year. It is designed to pose minimal disturbance over the course of the year. However, due to disturbance that will occur on the days of hunt, hunting could result in some redistribution of Western Canada geese at Baskett Slough refuge. Disturbance effects associated with hunting were examined in the SEIS 2009 for waterfowl and some other migratory bird species. On the basis of a review by Dahlgren and Korschgen (1992), the SEIS 2009 noted that disturbance has its most pronounced detrimental effect during the nesting period. Hence the SEIS 2009 noted that hunting related disturbance does not have any pronounced population level effects (US DOI 2009).

The effects of disturbance to non-hunted birds and other species under the proposed action are expected to be minor for the following reasons. Hunter education courses will be required for youth hunters. Orientation will be provided to youth hunters at the start of each hunting day. These measures will help to reduce effects to non-target species. In addition, hunting seasons do not coincide with the nesting season, thus reproduction will not be reduced by hunting. Disturbance to the foraging or resting activities of migrating or resident birds might occur, but would be minor because of the small amount of area available for these hunts, relative to the sizes of the Refuge, and the limited time parameters for hunting. There would not be disturbance to wintering wildlife because the hunts would be conducted prior to the wintering period.

**Impacts to Non-hunted Wildlife:** Non-hunted wildlife would include any non-target waterfowl and any other birds; small and medium-sized mammals; reptiles, amphibians, and invertebrates. Occasionally, nontarget species are illegally killed by hunters by accident or intentionally. However, the potential effect to non-hunted wildlife is largely in the realm of disturbance (see discussion above). Disturbance to other taxa would be unlikely or negligible for the following reasons. Encounters with reptiles and amphibians in the early fall would be few and should not have cumulative negative effects on reptile and amphibian populations. Refuge regulations further mitigate possible disturbance by hunters to non-hunted wildlife. Vehicles would be restricted to roads and the harassment or taking of any wildlife other than the game species legal for the season would not be permitted.

Some species of bats, butterflies, and moths are migratory. Cumulative effects to these species would be negligible. Although hunting would be allowed during September when these species are migrating, hunter interaction would be commensurate with that of non-consumptive users.

**Disturbance from Dogs:** Dogs elicit a greater response from wildlife than people on foot alone (MacArthur et al. 1982, Hoopes 1993). The presence of dogs may disrupt foraging activity in shorebirds (Hoopes 1993) and disturb roosting activity in ducks (Keller 1991). Despite thousands of years of domestication, dogs still maintain instincts
to hunt and chase. Given the appropriate stimulus, those instincts can be triggered. Dogs that are unleashed or not under the control of their owners may disturb or potentially threaten the lives of some wildlife. In effect, off-leash dogs increase the radius of human recreational influence or disturbance beyond what it would be in the absence of a dog.

The role of dogs in wildlife diseases is poorly understood. However, dogs host endo- and ectoparasites and can contract diseases from, or transmit diseases to, wild animals. In addition, dog waste is known to transmit diseases that may threaten the health of some wildlife and other domesticated animals. Domestic dogs can potentially introduce various diseases and transport parasites into wildlife habitats (Sime 1999).

Habitat and Vegetation: No facilities will be constructed expressly for the waterfowl hunting program, therefore there would be no direct loss of habitat. Minor impacts to vegetation would occur through minor trampling and the potential of hunters and dogs spreading invasive species. The small number of hunters and hunt days per year would result in a minor impact to vegetation.

Impacts to listed species: Waterfowl hunting is unlikely to pose more than a negligible impact to threatened and endangered species. There are four federally ESA-listed threatened bird species where the current species ranges overlap with Baskett Slough NWR: the marbled murrelet (T), northern spotted owl (T), Pacific marten (T), streaked horned lark (T), and yellow-billed cuckoo (T). The federally ESA-listed endangered Fender’s blue butterfly’s (E) current range also overlaps with the Baskett Slough NWR. The range of the monarch butterfly, a Federal candidate species, also overlaps with the Refuge.

The Refuge does not contain suitable habitat for marbled murrelet, northern spotted owl, and Pacific marten; and these species have never been documented on the Refuge. Therefore, waterfowl hunting would have no effect to these species. The Refuge does not contain the large blocks of riparian habitat required by yellow-billed cuckoos for breeding and migration, and cuckoos have never been observed on the Refuge. Cuckoos are unlikely to occur on the Baskett Slough during the September Canada goose and youth waterfowl hunt seasons, they may potentially occur there. In the unlikely event that a transient yellow-billed cuckoo was present in September, hunter presence and gunshot noise could disturb cuckoos. However, any potential effects to cuckoos would be insignificant because they most likely fly to adjacent habitat if disturbed, with no long-term effects to behavior. Therefore, waterfowl hunting may affect but is not likely to adversely affect the yellow-billed cuckoo.

Both Fender’s blue butterfly and streaked horned lark occur on the Refuge, and the Refuge contains critical habitat for streaked horned lark and Fender’s blue butterfly.
Fender's blue butterflies are found on upland prairies on Baskett Butte and other remnant prairie habitat, which are not in the hunt area. No hunting activity would occur in locations supporting Fender's blue butterfly. Fender's blue butterfly larvae would be in diapause during the September waterfowl hunting season and therefore would not be disturbed by hunting noise. Therefore, waterfowl hunting may affect, but is not likely to adversely affect, Fender's blue butterfly. Although a portion of the hunt area overlaps with critical habitat for this species, no plant species used by Fender's blue butterfly as larval host plants occur within the hunt area, and few if any plants used by adult Fender's blue butterflies for nectaring occur within the hunt area. Therefore, there would be extremely little to no use of this area by adult Fenders blue butterfly for nectaring or dispersal. Therefore, waterfowl hunting may modify, but is not likely to destroy or adversely modify, critical habitat for the Fender's blue butterfly.

Streaked horned lark breed and winter in the Willamette Valley, and occur on Baskett Slough NWR. They would be most likely to occur on open agricultural lands, prairies, and roadsides. The streaked homed lark occurs in locations that would be open to waterfowl hunting, and therefore may be disturbed by hunting activity. However, breeding/nesting activities are over at the time of the hunts (September) and there is abundant other suitable habitat (short-stature grassland and mudflats adjacent to wetlands) available to meet its foraging needs during the hunt period. Moreover, the limited number of hunting days limits disturbance impacts to streaked horned lark. Therefore, waterfowl hunting may affect, but is not likely to adversely affect the streaked horned lark; and waterfowl hunting may modify, but is not likely to destroy or adversely modify, critical habitat for the streaked horned lark.

Four listed plant species occur on the Baskett Slough NWR: Willamette daisy (E), Kincaid's lupine (Threatened), Nelson's checker-mallow (Threatened), and golden paintbrush (Threatened). Willamette daisy, Kincaid's lupine, and golden paintbrush occur in upland prairie habitat on Baskett Butte, which lies outside of the hunt area. The Refuge contains critical habitat for Willamette daisy. Nelson's checker-mallow is found on wetland edges, ditchbanks and roadside edges, depressions, and wet prairies across the refuge, and therefore may occur within the hunt area. However, waterfowl hunting is unlikely to pose more than a negligible impact to threatened and endangered plant species. No hunting activity would occur in locations supporting Willamette daisy, golden paintbrush, and Kincaid's lupine. Some trampling of areas supporting Nelson's checker-mallow could occur along wetland edges, dikes, and ditches, but impacts to soils and vegetation from trampling would be negligible due to the limited number of people walking in the hunt zones (low number of users and days of use expected). In addition, plants will have set seed and are largely senesced by the beginning of hunting season, such that they are not vulnerable to damage this time of year (occupied sites are generally mowed in September). Therefore, waterfowl hunting may affect, but is not likely to adversely affect, golden paintbrush, Kincaid's
lupine, Nelson’s checkermallow, and Willamette daisy. Waterfowl hunting may modify, but is not likely to destroy or adversely modify, critical habitat for the Willamette daisy.

One candidate species, monarch butterfly, has been documented recently in the Refuge area, and may potentially occur on the Refuge, which lies within the breeding range for this species. Small patches of the larval host plant, showy milkweed, exist on the Refuge; therefore use of the Refuge by monarch butterfly would be expected to be low. Monarch butterflies would have migrated by the time the waterfowl hunt season begins. In addition, milkweed plants will have set seed and are largely senesced by the beginning of hunting season, such that they are not vulnerable to damage this time of year. Accordingly, hunting may affect, but is not likely to jeopardize the monarch butterfly. For additional detail and supporting references on hunting effects to listed and candidate species see the ESA Section 7 Consultation (USFWS 2022).

Impacts to other priority public uses. Hunting has the potential to disturb Refuge visitors engaged in other priority public uses. To minimize this potential conflict, the waterfowl hunt season would be limited in time to a total of 11 days – nine days during the September Canada goose season and the one weekend for the youth hunt. During this time, hunting locations would be limited to designated wetlands and crop fields. The month of September is not a particularly popular month for attracting non-hunters to view wildlife. Because of this and the fact that the Refuge is open to hunting only 11 days per year, the direct impacts to other users are expected to be minor. To minimize user group conflicts, general public entry will be limited to the Rich Guadagno Memorial Trail, which lies outside the hunt area, until noon on hunt days. After 12 pm the entire Refuge is again open to the public.

Providing waterfowl hunting opportunity at Baskett Slough Refuge helps to better provide a “Big Six” use. Providing opportunities for youth is an important initiative in the Service and helps address a public desire to see more hunting opportunities for youth.

No significant effects to roads, trails, or other infrastructure from the hunting program are foreseen. Normal road, trail, and facility maintenance will continue to be necessary. Additional facility construction or upgrade, if needed, is addressed in the Availability of Resources section.

Long-term impacts

There would be indirect beneficial impacts of Refuge hunting over the long term. 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 Refuges have developed extensive public information and education programs bringing hunters into contact with Refuge activities and facilitating awareness of wildlife issues beyond hunting.

Public Review and Comment

This Draft Compatibility Determination was released for public review and comment for 60 days (June 8, 2022-August 8, 2022) in conjunction with the release of the 2022-2023 Sport Hunting and Fishing Regulations (Proposed Rule) in order to comply with the National Environmental Policy Act and with Service policy, before implementing the changes to the Refuge’s migratory bird hunting program. The public was made aware of this comment opportunity through our social media outlets and letters to potentially interested people such as cooperative farmers and partner agencies. A hard copy of this document was posted at the Refuge Headquarters (26208 Finley Refuge Road, Corvallis, OR 97333). It was made available electronically on the refuge website: www.fws.gov/refuge/baskett_slough/ and in the Federal Register as part of the 2022-2023 Sport Hunting and Fishing Regulations (Proposed Rule). During the public comment period we received six letters or emails regarding the proposed changes to the Refuge’s waterfowl program, including from the Oregon Department of Fish and Wildlife, the Oregon Hunters Association, and private citizens. All six letters supported the Refuge’s proposal to implement the September Canada goose hunt. ODFW specifically supported the Refuge’s proposal to expand the area where the goose hunt occurs, and not require a Refuge permit for September Canada goose hunting. Therefore, no changes to this Compatibility Determination were made as a result of public comments.
Determination

Yes

Stipulations Necessary to Ensure Compatibility

1. Only shotguns are permitted and all shot must be federally approved non-toxic shot.
2. We allow only hunters age 17 and younger to participate in the youth waterfowl hunt. Youths must be accompanied by an adult age 21 or older.
3. We require youth hunters to obtain a refuge waterfowl hunting permit (Waterfowl Lottery Application, FWS Form 3–2439, Hunt Application—National Wildlife Refuge System). All hunting must take place within the assigned blind. A maximum of four (4) people may occupy a blind. Only two hunting youth may occupy the same blind, and must be accompanied by at least one (1) non-hunting adult 21 years of age or older.
4. You must remove blinds, decoys, and other personal property at the end of each day’s hunt.
5. We allow the use of dogs when hunting.
6. Waterfowl and goose permit hunters must check in and out at the Hunter Check Station (refuge office), which is open from 1-1/2 hours before legal hunting hours to 8 a.m. and from 11 a.m. to 1 p.m., and complete a harvest report. Hunting after 12 p.m. (noon) is prohibited.
7. Free-roam hunting is permitted during the September Canada goose season. Hunters must space themselves no less than 200 yards (183 meters) apart from each other during the early September goose hunt.
8. Hunting parties during the September goose season are limited to three (3).
9. All vehicles are restricted to designated motorized routes of travel and parking areas. Trails lead from the parking areas to the blind sites. Use of ATVs and other off-road vehicles is prohibited.
10. Non-motorized watercraft (including boats, layout-type vessels, and float tubes) may only be used to set decoys and retrieve downed birds. Watercraft may not be used to access hunting locations.
11. Law enforcement patrols will be conducted on a regular basis to assure compliance with State, Federal, and Refuge regulations.
12. 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 utilizing other Refuge programs. Information will be provided at interpretive kiosks, on the Refuge website, and in Refuge offices.
13. Camping, overnight use, and fires are prohibited.
**Justification**

The stipulations outlined above would help ensure that the use is compatible at Baskett Slough National Wildlife Refuge. Waterfowl hunting, 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 waterfowl hunting at Baskett Slough 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 Baskett Slough National Wildlife Refuge. Rather, appropriate and compatible waterfowl hunting would be the use of the Refuge through which the public can develop an appreciation for wildlife and wild lands.
Literature Cited/References


Oregon Department of Fish and Wildlife. 2021a. Youth Hunting Opportunities. Available at: Youth Hunting Opportunities - Oregon Game Bird Hunting | eRegulations

Oregon Department of Fish and Wildlife. 2021b. Migratory Game Bird Seasons. Available at: Migratory Game Bird Seasons - Oregon Game Bird Hunting | eRegulations

Migratory bird hunting activity and harvest during the 2007 and 2008 hunting seasons. U.S. Fish and Wildlife Service, Laurel, Maryland, USA.


U.S. Fish and Wildlife Service. 2022. ESA Section 7 Consultation Form for Waterfowl Hunting at Baskett Slough NWR. On file at Willamette Valley NWR Complex Headquarters, Corvallis, OR.