

Categorical Exclusion Checklist for NEPA Compliance

Proposed Expansion of Rabbit and Hare, and Dove Hunting Malheur National Wildlife Refuge

January 2026

Part I: Description of Proposed Action

Insert a brief description of the proposed action.

The Malheur National Wildlife Refuge (NWR, Refuge) completed its Comprehensive Conservation Plan (CCP) and Environmental Impact Statement (EIS) in 2012. A Hunt Plan was prepared concurrently with the CCP/EIS. A minor amendment to the Hunt Plan was prepared in 2021 to re-open recreational coyote hunting, expand recreational hunting opportunities for migratory birds, upland game birds, and big game, and align with State regulations. At that time, the Refuge also opened to hunting of non-native Eurasian collared-dove. To ensure that hunting would not occur during spring migration or breeding seasons for migratory birds and other wildlife, we promulgated a Refuge-specific regulation allowing take of Eurasian collared-dove only during the State mourning dove season.

The US Fish and Wildlife Service (Service) proposes a minor revision to the CCP and Hunting Plan, as amended in 2021, to expand rabbit and hare hunting by opening the Buena Vista Unit (36,244 acres) and North Malheur Lake Unit (22,582 acres; 58,826 acres total) currently open to migratory bird, upland game bird, and deer hunting. The expansion would increase rabbit and hare hunting from the current 2,588 acres to 61,414 total acres. Rabbit and hare (jackrabbits) are unprotected species in Oregon and can be taken at any time of year with no bag limits. To ensure public safety and that hunting does not occur during spring migration and breeding seasons for Refuge wildlife, we propose a refuge-specific regulation permitting hunting of rabbit and hare only during State upland game bird (chukar, Hungarian partridge, pheasant, and quail) seasons (which in eastern Oregon run from October 11 through January 31) and a regulation allowing use of shotgun only for taking rabbit and hare on the Buena Vista and North Malheur Lake Units.

We also propose to expand dove hunting (both mourning dove and Eurasian collared-dove) by expanding the existing 25,170 acre hunt (North Malheur Lake and Boundary units) to include the Buena Vista Unit (36,244 acres), offering a total of 61,414 acres. Finally, we propose to expand the South Malheur Lake Unit, which is currently open to hunting coot, duck, goose, and snipe, from 4,651 to 6,397 acres, an increase of 2,646 acres, to improve and clarify hunter access.

Per 50 CFR 32.2 (k), lead shot would not be allowed for dove, rabbit and hare since the hunt units are designated as areas where hunters can possess only approved nontoxic shot. Therefore, no additional of lead added would be added to the environment as a result of the proposed action.

Part II: Categorical Exclusion Applied

List one or more categorical exclusions that may apply from [516 DM 1 Appendix 2](#), or [43 CFR 46.210](#), or that was previously adopted from another Federal agency or that is proposed for adoption. Include the name of the Federal agency or bureau that originally established the categorical exclusion.

United States Fish and Wildlife Service 516 DM 1, Appendix 2, 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.

and

United States Fish and Wildlife Service 516 DM 1, Appendix 2, 8.5(C)(3): The issuance of special regulations for public use of Service-managed land, which maintain essentially the permitted level of use and do not continue a level of use that has resulted in adverse environmental effects.

Part III Categorical Exclusion Justification

Insert a brief justification of why the categorical exclusion applies for the proposed action.

This action will only result in a minor change in the amount and type of hunting on the refuge, because expanding additional hunting opportunities was described in the CCP and Hunt Plan. The impact of opening additional acres to hunting would be similar to those analyzed in the CCP and Hunt Plan and Environmental Assessment, and are further detailed in the Draft Compatibility Determination for Waterfowl and Migratory Bird Hunting and the Draft Compatibility Determination for Upland Game and Big Game Hunting. The only change would be to the number of acres where rabbit, hare, and dove may be hunted.

The use and possession of nontoxic shot shells is currently required for hunting all migratory bird, upland game, and small game species on the Refuge except in the Boundary Unit, and would be required for hunting dove, rabbit and hare, in the Buena Vista and North Malheur Lake units. Therefore, no additional lead would be introduced into the environment as a result of the proposed action.

Part IV: Extraordinary Circumstances Evaluation (43 CFR 46.215):

Select “Yes”, “No”, or “No, with conditions” for each extraordinary circumstance that may apply. Additional explanatory text may be added for each extraordinary circumstance.

- A. Have significant impacts on public health or safety.

No

- B. Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands; floodplains; national monuments; migratory birds; and other ecologically significant or critical areas.

No

Residues from lead-based hunting ammunition can cause negative health effects, up to and including mortality, when they are unintentionally ingested by wildlife (Pain et al. 2019). Species that are most vulnerable are avian scavengers, including bald and golden eagles, which have special status under the Bald and Golden Eagle Protection Act. However, existing levels of lead use on the refuge for hunting, which is limited to hunting on the Boundary Unit and the use of lead buckshot or shotgun slugs for deer hunting on the Buena Vista Unit has not resulted in documented concerns for wildlife, environmental, or human health. The proposed hunt expansion would not introduce additional lead to the environment over current levels, since only short-range weapons would be allowed for hunting rabbit and hare in the North Malheur Lake and Buena Vista units, and nontoxic shot is required for hunting dove, rabbit and hare in these units.

- C. Have highly uncertain and potentially significant environmental effects or involve unique or unknown risks.

No

- D. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.

No

- E. Have a direct relationship to other actions that implicate potentially significant environmental effects.

No

- F. Have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by the bureau.

No

Section 106 of the National Historic Preservation Act requires federal agencies to consider the effects of their undertakings on historic properties. Hunting requires no ground-disturbing activities or other activities which would have the potential to disturb undocumented paleontological, archaeological, or historic sites. The Service has determined that that proposed action has no potential to cause effects to historic properties.

- G. Have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species or have significant impacts on designated Critical Habitat for these species.

No

An intra-Service Section 7 consultation was completed and found that the proposed hunting expansion may affect, but is unlikely to adversely affect, monarch butterfly, a species proposed for listing. Other listed species that potentially may occur in the vicinity of the Refuge have not been documented to occur on the Refuge.

- H. Significantly 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.

No

- I. Contribute to potentially significant effects resulting from the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or from other actions that promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act).

No

Part V: Environmental Action Statement and Service Decision

Pursuant to the National Environmental Policy Act of 1969, as amended (NEPA), and U.S. Department of the Interior (DOI) NEPA Implementing Regulations (43 CFR 46), the DOI Handbook of NEPA Implementing Procedures (516 DM 1), and other statutes, orders, and policies that protect fish and wildlife resources, I have established the following decision record and determined that the proposed action:

Is covered by one or more DOI, bureau, or adopted categorical exclusions as provided by 43 CFR 46.210 or 516 DM 1, Appendix 2 and no extraordinary circumstances in 43 CFR 46.215 (a)-(i) apply. No further NEPA documentation will therefore be made.

Is found to have *extraordinary circumstances* that could exist for the proposed action and either an environmental assessment or an environmental impact statement must be prepared.

Is not approved because of unacceptable environmental damage or violation of Fish and Wildlife Service mandates, policy, regulations, or procedures.

Is an emergency action within the context of 43 CFR 46.150. Only those actions necessary to control the immediate impact of the emergency will be taken. Other related actions remain subject to NEPA review.

Service Signature Approval:

Jess Wenick
Project Leader
Malheur National Wildlife Refuge
Pacific Region 1, National Wildlife Refuge System

Part VI: References

- Bedrosian, B., D. Craighead, and R. Crandall. 2012. Exposure in bald eagles from big game hunting, the continental implications and successful mitigation efforts. *PLoS ONE*. 7: e51978.
- Hanley, B. J., A. A. Dhondt, M. J. Forzán, E. M. Bunting, M. A. Pokras, K. P. Hynes, E. Dominguez-Villegas, and K. L. Schuler. 2021. Environmental lead reduces the resilience of bald eagle populations. *Journal of Wildlife Management* 1–18. <https://doi.org/10.1002/jwmg.22177>
- Hanley, B. J., C. E. Them, K. P. Hynes, P. J. Connelly, E. M. Bunting, and K. L. Schuler. 2023. Population impact to bald eagles by ingested lead in New York State, 1990–2018. *Wildlife Society Bulletin* 47:e1444. <https://doi.org/10.1002/wsb.1444>
- Pain, D. J., Mateo, R., & Green, R. E. 2019. Effects of lead from ammunition on birds and other wildlife: A review and update. *Ambio*, 48(9), 935–953. <https://doi.org/10.1007/s13280-019-01159-0>
- Slabe, V.A., Anderson, J.T., Cooper, J.L., Miller, T.A., Brown, B., Wrona, A., Ortiz, P.A., Buchweitz, J., McRuer, D., Dominguez-Villegas, E., Behmke, S., Katzner, T.E., 2020, Foraging ecology drives lead exposure of facultative and obligate avian scavengers in eastern North America: *Environmental Toxicology*, <https://doi.org/10.1002/etc.4680>
- Slabe, V. A., Anderson, J. T., Millsap, B. A., Cooper, J. L., Harmata, A. R., Restani, M., Crandall, R. H., Bodenstern, B., Bloom, P. H., Booms, T., & others. (2022). *Demographic implications of lead poisoning for eagles across North America*. *Science*, 375(6580), 779–782. <https://doi.org/10.1126/science.abj3068>
- Stauber, E., N. Finch, P.A. Talcott, and J.M. Gay. 2010. Lead poisoning of bald (*Haliaeetus leucocephalus*) and golden (*Aquila chrysaetos*) eagles in the US inland Pacific Northwest—An 18-year retrospective study: 1991–2008. *J. Avian Med. Surg.* 24:279–287. <http://dx.doi.org/10.1647/2009-006.1>
- Watson, J.W. and R.W. Davies. 2015. Lead, mercury, and DDE in the blood of nesting golden eagles in the Columbia Basin, Washington. *Journal of Raptor Research*, 49: 217–221. <https://doi.org/10.3356/0892-1016-49.2.217>

Draft Compatibility Determination

Title

Compatibility Determination for Waterfowl and Other Migratory Bird Hunting,
Malheur National Wildlife Refuge

Refuge Use Category

Hunting

Refuge Use Type(s)

Hunting (waterfowl), Hunting (other migratory birds)

Refuge

Malheur 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.” 16 U.S.C. 715d (Migratory Bird Conservation Act)

“ ... a Refuge and breeding ground for migratory birds and other wildlife ... ” Executive Order 7106, dated July 19, 1935, as modified by Public Land Order 1511, dated September 24, 1957

“ ... for the development, advancement, management, conservation, and protection of fish and wildlife resources ... ” 16 U.S.C. 742f(a)(4)

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

“ ... conservation, management, and ... restoration of the fish, wildlife, and plant resources and their habitats ... for the benefit of present and future generations of Americans ... ” 16 U.S.C. 668dd(a)(2) (National Wildlife Refuge System Administration Act)

National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System (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

Sport hunting for migratory birds was evaluated in the 2013 Compatibility Determination, which was prepared concurrently with the CCP/EIS for the Malheur National Wildlife Refuge (USFWS 2012). The Compatibility Determination was revised in 2021, superseding the 2012 Compatibility Determination, and was prepared in conjunction with a Minor Amendment to the Refuge's CCP and Hunt Plan (USFWS 2021).

This compatibility determination (CD) re-evaluates and replaces the 2021 Compatibility Determination for Migratory Bird Hunting which was developed concurrently with a Minor Amendment to the CCP/EIS and Hunt Plan (USFWS 2012).

What is the use?

The use is hunting of waterfowl (ducks, dark geese, and light geese) and other migratory birds (coot and snipe) in accordance with State, Federal, and Refuge-specific regulations.

Is the use a priority public use?

Yes

Where would the use be conducted?

Current Use: The total acreage open to migratory bird hunting is 63,477 acres, or 33.5% percent of the Refuge. Waterfowl and snipe hunting is permitted on the North Malheur Lake Unit (22,582 acres), the South Malheur Lake Unit (4,651 acres), and the Buena Vista Unit (36, 244 acres), 63,477 acres total. Dove hunting is permitted on the North Malheur Lake Unit and the Boundary Unit (2,588 acres), 25,170 acres total.

The North Malheur Lake Unit is located on the north side of Malheur Lake, east of Highway 205 and west of Cole Island Dike. Management direction under the CCP included redefining the boundary of the North Malheur Lake Unit to reflect the actual huntable acreage west of Cole Island Dike, and to protect significant resources on Malheur Lake. The boundary change has not been implemented at the time of writing (2026) and the Unit remains at 22,582 acres. The South Malheur Lake Unit is on the south side of Malheur Lake, east of the Sodhouse Farm's (a private inholding) eastern dike and west of Cole Island Dike. Caspian Tern Island is closed to hunting.

Access to the North Malheur Lake Unit is walk-in only from Lawen Road and the all-weather Saddle Butte Road on the north side of the lake, and there is one access point on Highway 205 at the Narrows (Refuge hunt map, Figure 1). Hunters must park in designated parking areas, as identified Refuge hunt map, to access the Malheur Lake

hunt areas. Parking for the Buena Vista Hunt Area and the Boundary Hunt Area west of Hwy 205 are off-road parking. Off-road parking must be within one vehicle length from the roadways. Gates opened to enter the hunting area from designated access points must be closed immediately after passing through. Access to the Refuge from private property is prohibited.

Proposed Changes to the Use: (2026): We propose to expand dove hunting (both mourning dove and Eurasian collared-dove) by expanding the existing 25,170 acre hunt (North Malheur Lake and Boundary units) to include the Buena Vista Unit (36,244 acres), offering a total of 61,414 acres open to dove hunting. Access to hunt areas would remain the same as present. We also propose to expand the area open to waterfowl, coot, and snipe hunting by expanding the South Malheur Lake Unit from 4,651 acres to 6,397 acres to improve clarity and practical access for hunters. The adjustment aligns access with the Narrows, an established and approved entry point already used for the North Malheur Lake Unit, which will reduce confusion for hunters navigating the lake and determining where waterfowl hunting is permitted.

When would the use be conducted?

Waterfowl and other migratory bird hunting occurs during State seasons. The State waterfowl season generally opens the second Saturday in October. The Refuge also holds a youth waterfowl hunt. The dove season generally opens on September 1. Hunting of Eurasian collared-dove, an introduced non-native species, is permitted during the State mourning dove season only.

How would the use be conducted?

When Malheur Lake is at low water (<10,000 acres), waterfowl hunting is not permitted on the North and South Malheur Lake Units.

Motorized vehicles are permitted on all roads as identified on the Refuge's hunt map (Figure 1). Use of ATVs/UTVs is prohibited on the Refuge. All other roads and dike tops not shown on the Refuge map are closed to the public. Gates, dikes, and road access may not be blocked by vehicles. Non-motorized or electric boats are permitted on Malheur Lake during the hunting season. All other Refuge waters are closed to boating.

Temporary blinds may be erected on the North and South Malheur Lake hunt areas during the hunt season. Blinds and all private property must be removed daily.

To reduce the disturbance of flying birds, retrieving dogs are strongly encouraged. Dogs must be kept under close control. Dogs not used for hunting are not permitted to be off-leash.

Shooting from or across public roads or road right-of-ways, hunting within 200 yards of any public use facility, camping and overnight parking, campfires, target shooting, and collecting natural objects such as plants, animals, minerals, antlers, and objects of antiquity (including Indian artifacts) are prohibited.

Why is this use being proposed or reevaluated?

This use is being reevaluated to address Secretarial Orders 3347, 3356, and 3347, to open new hunting opportunities on National Wildlife Refuges and to more closely align Refuge hunting regulations with State hunting regulations.

Availability of Resources

To comply with the Refuge Recreation Act (Public Law 87-714), the Project Leader must determine whether sufficient resources—financial, staffing, facilities, or other infrastructure—are available to support the proposed use without materially interfering with the refuge purpose(s) or the mission of the National Wildlife Refuge System. This determination should be informed by a review of current capacity and, where applicable, the refuge’s Comprehensive Conservation Plan (CCP).

Assessment of current resources and capacity

To comply with the Refuge Recreation Act (Public Law 87-714), the Project Leader must determine whether sufficient resources—financial, staffing, facilities, or other infrastructure—are available to support the proposed use without materially interfering with the refuge purpose(s) or the mission of the National Wildlife Refuge System. This determination should be informed by a review of current capacity and, where applicable, the refuge’s Comprehensive Conservation Plan (CCP).

Availability of resources for administering and managing the hunt program, including waterfowl hunting, migratory bird hunting, upland game hunting, and big game hunting, are shown in Table 1.

Table 1. Costs to Administer and Manage Migratory Bird Hunting at Malheur NWR

Category and Itemization	One-time Cost	Recurring Annual Expenses
Develop hunt plan amendment/opening package	\$5,000	--
Construct facilities	--	--
Develop and print updated brochures	\$1500	\$500
Survey and post use area boundary	\$5,000	\$2,500
Staff time (programmatic, law enforcement, information)	--	\$2,000
Maintenance	--	\$10,000
Monitoring	--	--
Total one-time expenses	\$16,000	
Total recurring annual expenses		\$15,000

Administering the upland game hunt program does not require significant staff time, equipment, or funding. In general, the upland hunt program uses many of the same facilities as the wildlife observation, photography, and interpretation program, including public access roads, trails, and parking areas, and signs. Additional costs and staff time includes maintenance, posting signs, and updating and printing hunting brochures and developing new publications.

The Refuge does not have a law enforcement officer on site, but receives support from the Zone Law Enforcement Officer and the County Sherriff's Department during the hunting season to ensure compliance with state and Federal, and Refuge-specific regulations. The Refuge will continue to develop partnerships and seek additional funding resources as necessary to support hunting.

Impacts of changes to resources and capacity

The availability of resources is subject to change and the level of use provided may vary based on current staffing, partner support, funding, or infrastructure conditions. Costs may increase over time, in relation to changes in the costs for equipment, maintaining facilities, etc. A substantial increase to the number of requests may also create the need for additional resources to administer the use. The Project Leader will use sound professional judgment in evaluating whether the refuge or its partners

can develop, operate, and maintain the use in a compatible manner.

For priority public uses—including hunting, fishing, wildlife observation and photography, or environmental education and interpretation—if resource conditions shift such that the refuge can no longer sustain the use in a compatible manner, the Project Leader may temporarily modify or suspend the use pursuant to 50 CFR 25.21(E) (or for Alaska pursuant 50 CFR 36.42(D) for a period of up to one year). If it becomes apparent that insufficient resources will be sustained into the long-term, the Project Leader may re-evaluate the compatibility of the use and discontinue the use if necessary. The public will be notified of any changes to refuge uses, including temporary modification or suspension, re-evaluation of compatibility and/or discontinuing of refuge uses.

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 socioeconomics 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

There could be some indirect beneficial impacts of Refuge hunting. Refuge hunting can contribute to wildlife and habitat conservation and provide educational and sociological benefits. The hunting community remains the largest support base for funding land acquisitions in the Refuge System through the purchase of Duck Stamps. Waterfowl hunting at the Refuge is a “Big Six” use and helps meet the Refuge’s goals of wildlife- dependent recreation for all visitors. Additionally, providing youth hunting opportunities is an important initiative in the Fish and Wildlife Service, and enhancing this opportunity on the Refuge helps address a public desire to see more hunting opportunities for youth.

Short-term impacts

Impacts to Vegetation, Soil, and Water

Since access to upland and big game hunting areas is walk-in, associated foot travel from accessing Malheur Lake, and the Buena Vista Unit for hunting could potentially result in temporary and minor vegetation trampling and the potential creation of social trails. Pedestrians can cause structural damage to plants and increase soil compaction and erosion (DeLuca et al. 1998; Whittaker 1978). Because hunting requires off-trail use in the pursuit and/or recovery of game, plants may be trampled,

and biotic soil crusts may be disturbed.

Roads and trails often function as conduits for movement of nonnative, invasive plant species (Benninger-Truax et al. 1992; Hansen and Clevenger 2005). Most invasive plants also need some form of transportation to reach new areas (Trombulak and Frissell 2000). Several potential modes of transportation, or “vectors,” including vehicle traffic on roads, hunters on foot, their dogs, and hunting equipment may inadvertently transport propagules of invasive plants onto the Refuge. Impacts are expected to be minor due to the small number of hunters involved in this activity and the dispersed nature of hunting.

Impacts to Hunted Wildlife

Sport hunting involves the direct take of wildlife designated as huntable game species by regulation. In addition to loss of target individuals, additional birds are sometimes crippled or killed and not retrieved.

Hunting causes disturbance to feeding and resting waterfowl as well as non-target species due to noise (shotgun), movement, vehicular traffic, and use of dogs for hunting activities. It can also alter behavior, population, structure, and distribution patterns of wildlife (Owens 1977; Raveling 1979; White-Robinson 1982; Thomas 1983; Bartlett 1987; Madsen 1985; Cole and Knight 1990; Dooley et al. 2010). Disturbance levels from hunting activity outside Chincoteague NWR 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). Although disturbance from hunting is noted to have effects directly on wildlife, the U.S. Department of the Interior (U.S. DOI) concluded that hunting disturbance has less of an impact compared to the direct mortality caused by hunting (2009).

There appears to be an inverse relationship between the number of birds using an area and hunting intensity (DeLong 2002). In California, the number of northern pintails on Sacramento NWR non-hunt areas increased after the first week of hunting and remained high until the hunt 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 beginning of the hunting season. Prolonged and extensive disturbances may cause large numbers of waterfowl to leave disturbed areas and migrate elsewhere (Madsen 1995; Paulus 1984).

Sanctuaries or non-hunt areas have been identified as the most common solution to disturbance problems caused by hunting (Havera et al. 1992). In Denmark, hunting disturbance effects were experimentally tested by establishing two sanctuaries, and over a 5-year period, these sanctuaries became two of the most important staging areas for coastal waterfowl; numbers of dabbling ducks and geese increased 4- to 20-

fold within the sanctuary (Madsen 1995). Approximately 122,000 acres, or 65 percent, of Malheur NWR is closed to hunting.

Hunting could result in redistribution of waterfowl and waterbirds at the 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 2009 SEIS noted that disturbance has its most pronounced detrimental effect during the nesting period. Hence the 2009 SEIS noted that hunting-related disturbance does not have any pronounced population level effects (U.S. DOI 2009).

Impacts to Non-Hunted Wildlife:

Non-hunted wildlife would include any non-target waterfowl and other birds; small- and medium-sized mammals; reptiles; amphibians; and invertebrates. Occasionally, non-target species are illegally killed by hunters by accident or intentionally, or are disturbed by hunter presence or noise.

A substantial portion of the refuge is open to waterfowl hunting (63,450 acres). Disturbance to the foraging or resting activities of migrating or resident birds may occur. However, disturbance is believed to be moderate to minor for the following reasons. Hunting seasons do not coincide with nesting seasons; thus, reproduction will not be reduced by hunting. The expected number of waterfowl hunters after opening weekend is small, thus both hunter competition and disturbance issues are minor. On the North Malheur Lake Unit, due to the long walk-in distances and difficulties and inconsistencies of getting boats out on the lake, many hunters hunt the shoreline rather than using boats on Malheur Lake, thus limiting the area disturbed on that side. The Buena Vista Unit is a walk-in hunt, but prohibiting overnight camping decreases the likelihood of hunters roaming long distances in the Buena Vista Unit and other hunt units. In addition, hunter education courses are required for youths.

Dogs used by waterfowl and upland game bird hunters increase the level of disturbance to target and non-target species. 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). Many of these authors indicated that dogs with people, dogs on leash, or loose dogs provoked the most pronounced disturbance reactions from their study animals. 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. Indirectly, domestic dogs can also potentially introduce various diseases and transport parasites into wildlife habitats (Sime 1999). However, disturbance impact of dogs to non-target species is expected to be minor, and is encouraged to support waterfowl, migratory bird, and upland game bird hunting. Dogs are required to be under the close control of their owners while on the Refuge.

Waterfowl can be an important food resource for bald eagles in winter. On the Refuge, bald eagle presence is low during the winter, and the majority of the population is found during the spring. During waterfowl hunting season, there will be adequate food resources available on Malheur Lake and the wetlands for any bald eagles on the Refuge at this time. Furthermore, hunting pressure is generally low overall, and there will be no expected competition between hunters and bald eagles for waterfowl.

Greater sage-grouse (*Centrocercus urophasianus*) is a species of conservation concern in Oregon, as populations have dropped dramatically from historic levels. Significant, proactive conservation efforts and management plans have been developed by states and federal agencies to protect its habitat, in hopes that formal ESA listing can be avoided by these collaborative actions. Incidental post-breeding observations of sage-grouse have been made in recent years in the southeast portion of the Blitzen Valley.

Sandhill cranes stage on the southern portion of Malheur Lake and in the Buena Vista wetlands in August and September, and depending on weather, a small number of birds may remain into mid-October. Other birds using the area may be disturbed by noise and human presence; however, since most birds will have already migrated through the area by the time hunting begins, disturbance levels will be expected to be minor overall. Outreach with hunting brochures and timely information on the website will help educate hunters on hunting opportunities, regulations, and ethical hunter behavior.

Impacts from dove hunting, which would occur in the same habitats as upland game hunting, to greater sage-grouse is anticipated to be minor to negligible. The greater sage-grouse is not a hunted species on the Refuge, although disturbance may result from noise related to hunting activities during the hunting season, which overlaps with the most recent seasonal observations of sage-grouse on the Refuge. Public education will assist in raising awareness and preventing undue impacts to these species. If uses result in unacceptable adverse effects to sage-grouse or its habitats, the Refuge will impose restrictions to mitigate disturbance.

Another species of conservation concern, the Columbia spotted frog (*Rana luteiventris*) have been documented in limited areas on the Refuge (Engle 2001; Pearl et al. 2010; Rombough and Engler 2010; ODFW 2011). The Great Basin distinct population segment (DPS) is a Federal candidate species; however it appears Refuge populations belong to the Oregon population, which is not a candidate listing under the Endangered Species Act. It is anticipated that impacts from waterfowl and migratory bird hunting would be minor to negligible. Frogs will most likely be hibernating during the winter, and hunting season ends prior to their breeding season.

Disturbance to other taxa is unlikely or negligible for the following reasons.

Encounters with reptiles and amphibians, invertebrates, and small mammals in the early fall will be few. Refuge regulations further mitigate possible disturbance by hunters to non-hunted wildlife. Vehicles are restricted to public roads and the harassment or taking of any wildlife other than the game species legal for the season is not permitted.

Impacts to Listed Species

The Federally endangered Malheur wire-lettuce (*Stephanomeria malheurensis*) historically occurred in the vicinity of the Malheur NWR but no longer occurs on the Refuge. Therefore, waterfowl and migratory bird hunting would have no effect on Malheur wire-lettuce. The monarch butterfly, a species proposed for listing, has been documented on the Refuge (Pearsall 2020). The Service prepared an intra-Service Section 7 consultation and has determined that hunting may affect, but is unlikely to adversely effect, monarch butterfly.

Impacts to Other Priority Public Uses

Hunting has the potential to disturb Refuge visitors engaged in other priority public uses; however, given the season during which hunting occurs, the likelihood of conflicts is low. The number of visitors to the Refuge during this season is drastically lower than in other seasons. Although Center Patrol Road is the most popular attraction during the migration seasons, use is also very light during hunting season, and state regulations also prohibit shooting from, on, and across roads. Fishing along the Blitzen River from Sodhouse Lane to Boat Landing Road concludes prior to the hunting season opening. Generally, winter use on the Refuge is only a fraction of the use during the spring and fall seasons.

Impacts of Lead Ammunition:

The use of lead shot is currently prohibited for hunting waterfowl and other migratory birds on all Refuge units except the Boundary Unit. Dove hunting on the Boundary Unit carries the potential for adverse health impacts to wildlife from discarded lead from shotgun and rifle ammunition in the environment, in addition to the inherent impacts of intentional harvest from hunting. Residues from lead-based hunting ammunition can cause negative health effects, up to and including mortality, when they are unintentionally ingested by wildlife.

Lead impacts would be primarily associated with spent shot or lead shot left in offal or carcasses. The taxa most likely to be exposed to lead through this pathway are on the Boundary Unit are granivorous birds, scavenging mammals, and smaller scavenging birds such as corvids. In addition to ingestion of lead shot in offal and carcasses by scavengers, spent shotgun pellets may be picked up by granivorous birds, including quail and dove. Bald and golden eagles would not pick up spent shot, and are unlikely to be attracted to the remains of small birds. Given the size of the Boundary Unit and the low number of hunters engaged in dove hunting on this unit,

the potential for lead to be concentrated in one area is small, making ingestion by any of these taxa a rare occurrence.

Long-term impacts

Long-term Impacts to Waterfowl Populations: 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 the United States 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. A review of the policies, processes, and procedures for waterfowl hunting is covered in a number of documents.

The Service annually promulgates regulations ([50 C.F.R. 20](#)) establishing the Migratory Bird Hunting Frameworks. The Migratory Bird Hunting Frameworks provide season dates, bag limits, and other options for states to select from, which 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. 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 an annual Waterfowl Population Status Report.

In addition, the number of waterfowl hunters and resulting harvest are closely monitored through both the Harvest Information Program (HIP) and the Parts Survey (Wing Bee). 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 pre-determined regulations (appropriate levels of harvest) that comprise the framework offered to states that year. Each state's wildlife commission then selects season dates, bag limits, shooting hours, and other options from the Pacific Flyway package. Their selections can be more restrictive, but cannot be more liberal than AHM allows. Thus, the level of hunting opportunity afforded each state increases or decreases each year in accordance with the annual status of waterfowl populations. Season dates and bag limits for National Wildlife Refuges open to hunting are never longer or larger than the state regulations.

Waterfowl hunters in Oregon harvested an estimated 260,700±17% ducks and 40,800±27% geese during the 2023-24 season and 252,800±21% ducks and 25,700±35% geese during the 2024-25 season (Raftovich et al. 2025). Refuge-specific harvest data is not available at this time, but per communication with Refuge staff and ODFW, hunter numbers and harvest numbers are generally very low. Estimated harvest of waterfowl and other migratory birds at Malheur NWR is 260 ducks, 200 geese, and 100 coots. This represents less than 1/10 of 1 percent of the State waterfowl harvest. Most waterfowl harvest occurs on the North Malheur Lake Unit.

We estimate that only 25% of current harvest of ducks, geese, and coots on the Refuge is from the Buena Vista Unit, which primarily provides only jump-shooting opportunities. Few waterfowl are harvested on the South Malheur Lake unit due to limited access. Currently about 180 waterfowl hunters visit the Refuge annually. About 100 hunters come out for opening weekend and that number continues to drop throughout the season. Given the low numbers of waterfowl hunters, harvest on the Refuge would be expected to remain low and would have a negligible impact to populations in the State or Flyway.

Historical data demonstrates that Malheur Lake was once an extremely productive area for waterfowl, with annual waterfowl production estimates from 1942 to 1980 averaging over 51,000 birds, of which ducks constituted over 95 percent, or over 48,000 ducks produced annually. In 1948 alone, 146,950 ducks were produced (Cornely 1982), suggesting that these high levels of production resulted in high-quality waterfowl hunting.

The 2015 Compatibility Determination for Waterfowl Hunting prepared in conjunction with the CCP (USFWS 2015) used the mid-winter population index to compare take to local waterfowl populations, since most waterfowl hunting occurs in fall and winter. At the time, this index was provided by the annual Pacific Flyway Data Book, which tracks waterfowl harvests and status, and hunter participation and success in the Pacific Flyway and United States (Collins and Trost 2010). The data was provided at a variety of scales: Pacific Flyway, State of Oregon, and Survey Unit 69-3 S, which includes Klamath, Lake, and Harney counties, providing a good view of regional populations in winter (Collins and Trost 2010). Although the Refuge receives the majority of its birds during the spring and fall migration months, the mid-winter index provided a picture of bird populations that may have been present regionally during the Refuge hunting season. In the past, the Pacific Flyway Council conducted aerial mid-winter waterfowl surveys in Survey Unit 69-3 S, which included Klamath, Lake, and Harney counties. However, the mid-winter population index is no longer reported for Malheur NWR, since aerial flight surveys are no longer conducted.

Based on historical data from mid-winter surveys, Oregon hosts only a small percentage of wintering waterfowl within the Pacific Flyway. The majority of waterfowl, other than cackling Canada geese, winter in California. At Malheur, the main wintering species include: Great Basin Canada geese, mallards, common goldeneye, bufflehead, and common and hooded merganser; coots are smaller in number. Most waterfowl species migrate away from the Refuge by mid-November with peaks during October. The Refuge has a low number of wintering birds, usually less than 3,000 birds reported during counts.

Fall Populations: Counts were conducted on the Refuge during the 1970s to 1990s to gather information on fall use days of ducks and geese. Between 1975 and 1981, the

counts captured ducks and geese on Malheur Lake only; counts were Refuge-wide between 1982 and 1990, which assumed 90 percent of fall use was still on Malheur Lake. From 1991 to 1997, counts did not specify location of populations, so it is hard to determine if they represent Malheur Lake, Harney Lake, or Refuge-wide counts, and thus do not provide a reliable source. The fall population counts from the 1970s to 1990s represent population numbers from mid-September through mid-December on the Refuge. Although dated, the counts provide the best available data for fall bird populations over time on the Refuge. (Paullin et al. 1977; Horton et al. 1983; Littlefield 1983).

Although recent population data is not readily available, Refuge staff believe waterfowl production has been decreasing over the years due to lake level fluctuations and invasive carp. Management activities to control carp in Malheur Lake are ongoing. If the Refuge is successful in controlling carp, it is expected that the number of nesting birds in this area will increase and consequently the number of hunters and harvests will also increase in the future. If the health of Malheur Lake improves and the hunt program grows over current levels, the hunt program will be revisited with ODFW guidance to determine what the appropriate level of harvest would be based on population projections.

American coots: American coot populations in the U.S. have been increasing for many decades, from 600,000 birds in 1955 to 1.6 million birds in 2005 and 3 million in 2025. Pacific Flyway harvest was 179,700 \pm 130% in 2023 and 16,800 \pm 26% in 2024. Coot harvest in Oregon was 10,400 \pm 145% in 2023 and 1,600 \pm 120% in 2024 (Raftovich et al. 2025). As the flyway coot population continues to remain high, these birds are underutilized and, with liberal bag limits, can provide increased hunting opportunity. Estimated Refuge coot harvest represents only 1 percent, or less, of State harvest, and impacts to coot populations at a State or Flyway level are minor to negligible.

Mourning dove and snipe: As with waterfowl and other migratory birds, harvest management decisions for mourning doves are made annually, based on monitoring data that are used to estimate and predict the annual abundance of doves in each flyway. Under a national strategy, these predictions are used to inform the selection of regulatory packages (daily bag limit and season length).

The total dove population in the US was 337 million, including 53.9 million (SD=7.5) in the Western Management Unit, as of 1 September 2024. In 2024 estimates of mourning dove total harvest, active hunters, and total days afield in the US were: 14,607,200 (SE= 282,400) birds, 947,000 hunters, and 2,848,700 (SE=52,400) days afield. In 2024 harvest and hunter activity in the Western Management Unit were 1,459,700 (SE=73,000) birds, 97,600 hunters, and 263,300 (SE=11,500) days afield. (Seamans 2025). Hunter numbers and success vary by year based on weather conditions and other factors, but the number of dove hunters, and dove harvest, in Oregon is among the lowest of Western states. In 2023-24, an estimated 3,600 hunters spent 28,800 days afield and harvested 11,200 mourning doves in Oregon. On average, 3.1 doves per hunter were harvested. In 2024-25, 14,400 doves harvested by

1,700 hunters, who spent 4,900 days afield. Estimated harvest was 8.4 doves per hunter (Raftovich et al. 2025).

Eurasian collared-dove is an introduced non-native species that is now abundant in the western United States. It is an unprotected species in Oregon and may be taken year-round. There is no bag limit. We propose to allow hunting of this species but only during the State dove season, to prevent disturbance to other wildlife during breeding and migration.

Dove harvest in Oregon is relatively low compared to other states in the western US. The 14,400 doves harvested in Oregon in 2024 represented less than 1/10 of one percent of the 16 million doves harvested in the US in 2024 (Raftovich et. al 2025). Numbers of dove hunters and harvest on the Refuge have not been tracked. Dove may be taken opportunistically by hunters pursuing upland game birds. We estimate that currently, only a small number of doves (less than 50) may be taken annually during the State season (September 1-October 30). This represents a negligible fraction of doves harvested in Oregon. The proposed expansion of dove hunting (both mourning dove and Eurasian collared-dove) would more than double the acres open to dove hunting on the Refuge, from 25,170 acres (North Malheur Lake and Boundary units) to 61,414 acres. The Buena Vista unit currently offers good pheasant hunting opportunities and may provide good dove hunting opportunities as well. Potentially, a large increase in dove hunters and harvest could occur but given the low numbers of dove hunters in Oregon, harvest on the Refuge would be low and would have a negligible impact to populations in the State or Flyway.

Snipe: Relatively few snipe are harvested in the central and western US; more than 90 percent of snipe harvested in 2023 were harvested in the Atlantic and Mississippi Flyways. As with mourning dove, snipe harvested in Oregon (800) represented less than 1/10 of 1 percent of the 144,000 snipe harvested in the US in 2024 (Raftovich et al. 2025). Snipe hunting on the Refuge is incidental to hunting waterfowl, and only an estimated 20 snipe are harvested annually, representing at most 2.5% of the State harvest. Refuge harvest would have a negligible impact to snipe populations in the State or Flyway.

Public Review and Comment

The draft compatibility determination will be available for public review and comment for 30 days in conjunction with the release of the 2026-2027 Sport Hunting and Fishing Regulations (Proposed Rule) to comply with the National Environmental Policy Act and with Service policy, before expanding rabbit, hare, and dove opportunities on the Refuge.

A hard copy of this document will be posted at the Refuge Headquarters at 36391 Sodhouse Lane, Princeton, OR 97721-9502. It will be made available electronically on

the Refuge website <https://www.fws.gov/refuge/malheur> and in the Federal Register as part of the Proposed Rule. The public may submit comments or requests for additional information through any of the following methods:

Email: HuntFishRuleComments@fws.gov Include “Malheur Hunt Expansion” in the subject line of the message.

U.S. Mail: U.S. Fish and Wildlife Service, Attn: Refuge Manager, Malheur NWR, 36391 Sodhouse Lane, Princeton, OR 97721-9502.

Determination

Is the use compatible?

Yes

Choose an item.

Stipulations Necessary to Ensure Compatibility

1. Only federally approved nontoxic shot may be used or be in possession while hunting on the North Malheur Lake, South Malheur Lake, and Buena Vista Units.
2. Eurasian collared-dove may be hunted only during the State mourning dove season.
3. Vehicles are allowed only on maintained public roadways. Parking is allowed only within one vehicle length of the roadway. Hunters will be instructed to not block dike and field access points.
4. Overnight parking, camping, and campfires are not permitted.
5. Access is walk-in only. Electric motorized boating or non-motorized boating are permitted on Malheur Lake during the waterfowl hunt season.
6. UTVs/ATVs are prohibited.
7. Hunting dogs are strongly encouraged to increase hunter success and retrieval rate. Dogs must be kept under close control.
8. Seasonal hunting closures may occur to protect waterfowl populations when the Malheur Lake water level drops below 10,000 acres.
9. Hunting closures are in effect near Refuge Headquarters, Buena Vista Station, and the Malheur Field Station. Shooting from or across public roads or road right-of-ways is prohibited.
10. Law enforcement patrols will ensure safety and minimize conflicts with other priority public uses by providing information about hunting boundaries and seasons to the general public and those using other Refuge programs. Information will be provided at interpretive kiosks, on the Refuge website, and in Refuge offices.

Justification

Waterfowl and migratory bird hunting, as outlined in this compatibility

determination, would not conflict with national policy to maintain the biological diversity, integrity, and environmental health of Malheur National Wildlife Refuge. Waterfowl population objectives and allowable harvests are determined on a flyway basis using an established annual regulatory process. Limited hunt seasons at the Refuge in significant wildlife areas, and no hunt zones, ensure that wintering and migrating waterfowl, as well as non-target species, will find adequate food and rest areas on the Refuge even in the midst of the hunting season. Populations of waterfowl and migratory birds are unlikely to be affected significantly by the hunting program on the Refuge.

Based on the stipulations outlined above, it is anticipated that wildlife populations will find sufficient food resources and resting places such that their abundance and use of the Refuge will not be measurably lessened as a result of allowing waterfowl and migratory bird hunting on Malheur National Wildlife Refuge. The relatively limited number of individual animals expected to be adversely affected as a result of waterfowl and migratory bird hunting will not cause wildlife populations to materially decline, the physiological condition and production of species present will not be impaired, their behavior and normal activity patterns will not be altered dramatically, and their overall welfare will not be negatively impacted. Based on available science and best professional judgement, the Service has determined that waterfowl and migratory bird hunting at Malheur National Wildlife Refuge, in accordance with the stipulations provided here, would not materially interfere with or detract from the National Wildlife Refuge System mission or the purposes of the Malheur National Wildlife Refuge. Rather, appropriate and compatible waterfowl and migratory bird hunting would be a use of the Malheur National Wildlife Refuge through which the public can develop an appreciation for wildlife and wild lands.

Signature of Determination

Refuge Manager Signature and Date

Signature of Concurrence

Assistant Regional Director Signature and Date

Mandatory Reevaluation Date

2041

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Draft Compatibility Determination

Title

Compatibility Determination for Upland Game and Big Game Hunting, Malheur National Wildlife Refuge

Refuge Use Category

Hunting

Refuge Use Type(s)

Hunting (upland game), Hunting (big game)

Refuge

Malheur 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.” 16 U.S.C. 715d (Migratory Bird Conservation Act)

“ ... a Refuge and breeding ground for migratory birds and other wild life ... ” Executive Order 7106, dated July 19, 1935, as modified by Public Land Order 1511, dated September 24, 1957

“ ... for the development, advancement, management, conservation, and protection of fish and wildlife resources ... ” 16 U.S.C. 742f(a)(4)

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

“ ... conservation, management, and ... restoration of the fish, wildlife, and plant resources and their habitats ... for the benefit of present and future generations of Americans ... ” 16 U.S.C. 668dd(a)(2) (National Wildlife Refuge System Administration Act)

National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System (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

Sport hunting for migratory birds was evaluated in the 2013 Compatibility Determination, which was prepared concurrently with the CCP/EIS for the Malheur National Wildlife Refuge (USFWS 2012). The Compatibility Determination was revised in 2021, superseding the 2013 Compatibility Determination, and was prepared in conjunction with a Minor Amendment to the Refuge's CCP and Hunt Plan (USFWS 2021).

This compatibility determination (CD) re-evaluates and replaces the 2021 Compatibility Determination for Big Game and Upland Game Hunting at Malheur NWR, which was developed concurrently with a Minor Amendment to the CCP/EIS and Hunt Plan (USFWS 2012).

What is the use?

The use is big game hunting (mule deer and pronghorn) and upland game hunting, including upland game birds (California quail, chukar, Hungarian partridge, and ring-necked pheasant), small game, and furbearer (Nuttall's cottontail, black-tailed jackrabbit, and coyote) in accordance with State, Federal, and Refuge-specific regulations.

State regulations define coyote and rabbit (cottontails and jackrabbits) as predatory animals; coyotes are also defined as unprotected mammals. State regulations treat Federal refuges differently from other federal lands in at least one way. State rules (OR 635-050-0210) specifically bar hunting or trapping of fur-bearing mammals or unprotected mammals (both are defined in OR 635-050-0050) on "Federal refuges." The Service must specifically open those species to hunting under Refuge-specific regulations. Therefore, in the CCP, the Service clarified that rabbit species allowable for take on the Boundary Unit were black-tailed jackrabbit (*Lepus californicus*) and Nuttall's cottontail (*Sylvilagus nuttallii*).

Is the use a priority public use?

Yes

Where would the use be conducted?

Current Use: Upland game bird hunting is permitted on the North Malheur Lake Unit (22,582 acres), the Buena Vista Unit (36,244 acres), and the Boundary Unit (2,588 acres), 61,414 acres total. Dove hunting is permitted on the North Malheur Lake Unit and the Boundary Unit (2,588 acres), 25,170 acres total.

Mule deer hunting is permitted on the Buena Vista Unit (36,244 acres) and the Boundary Unit (2,588 acres), 38,832 acres total. Coyote, rabbit, and hare, and

pronghorn hunting are permitted only on the Boundary Unit (2,588 acres).

Hunting for upland game birds (California quail, chukar, Hungarian partridge, and ring-necked pheasant) is permitted on the North Malheur Lake Unit, east of Highway 205 and west of Cole Island Dike. The Unit currently measures 22,582 acres. Upland game hunting occurs on the edge of Malheur Lake, and not on the actual lake itself. Management direction under the CCP included redefining the boundary of the North Malheur Lake Unit to reflect the actual huntable acreage and to protect significant resources on the lake, reducing the unit to an average of 13,000 acres based on the typical low water line. The boundary change has not been implemented at the time of writing (2026) and the Unit remains at 22,582 acres.

Access to the North Malheur Lake Unit is walk-in only from Lawen Road and the all-weather Saddle Butte Road on the north side of the lake, and there is one access point on Highway 205 at the Narrows (Refuge hunt map, Figure 1). Hunters must park in designated parking areas, as identified in the Refuge hunt map, to access the Malheur Lake hunt areas.

Parking for the Buena Vista Hunt Area and the Boundary Hunt Area west of Hwy 205 are off-road parking. Off-road parking must be within one vehicle length from the roadways. Gates opened to enter the hunting area from designated access points must be closed immediately after passing through. Access to the Refuge from private property is prohibited.

Proposed Changes to the Use: The US Fish and Wildlife Service (Service) proposes a minor revision to the CCP and Hunting Plan, as amended in 2021, to expand rabbit and hare hunting by opening the Buena Vista Unit (36,244 acres) and North Malheur Lake Unit (22,582 acres; 58,826 acres total) currently open to migratory bird, upland game bird, and deer hunting. The expansion would increase rabbit and hare hunting from the current 2,588 acres to 61,414 total acres.

When would the use be conducted?

Current Use: Hunting of big game (mule deer and pronghorn) and upland game birds (California quail, chukar, Hungarian partridge, and ring-necked pheasant) is allowed during State seasons, which run from October 11 through January 31. Nuttall's cottontail, black-tailed jackrabbit, and coyote are unprotected species in Oregon and can be taken at any time of year with no bag limits. Currently, hunting of these species is allowed only on the Boundary Unit, which is adjacent to BLM where State regulations for these species applies. Therefore, this unit is open to hunting these species year round.

Proposed Changes to the Use: To ensure public safety and that hunting does not occur during spring migration and breeding seasons for Refuge wildlife, we propose a refuge-specific regulation permitting hunting of rabbit and hare only during State upland game bird seasons (October 11-January 31) on the North Malheur Lake and

Buena Vista units. Hunting on the Boundary Unit would remain unchanged.

How would the use be conducted?

Current Use: Limited hunting of mule deer is permitted on the Buena Vista Unit in accordance with State of Oregon big game hunting regulations and subject to the following conditions:

- The number of permits issued annually is determined in consultation with the Oregon Department of Fish and Wildlife but would not exceed four tags.
- The Malheur NWR issues permits through a lottery application system. Applicants must possess a 169A Controlled 100 Series Buck Deer Tag for the Steens Mountain Wildlife Management Unit issued by the State of Oregon to be eligible to apply for the mule deer hunt on the Buena Vista Unit.
- Mule deer hunt permit holders are restricted to the use of short-range weapons (archery, shotgun, and muzzle-loader) on the Buena Vista Unit.
- The mule deer hunting season on the Buena Vista Unit opens on the opening day of the Any Legal Weapon Buck Deer Season for the Steens Mountain Wildlife Management Unit and closes the Friday before the opening day of the State of Oregon statewide rooster pheasant season.
- Designated safety zones in the Buena Vista Unit are closed to all hunting.

The Boundary Hunt Unit (2,588 acres) includes an approximately narrow, approximately 2,000-acre strip of land west of State Highway 205 and south of Foster Flat Road, and a 500-acre area bordering Krumbo Creek upstream of Krumbo Reservoir. Both pieces of this unit border Bureau of Land Management (BLM) land. An uneven and generally unmarked boundary has contributed to difficulties in distinguishing the boundary between Refuge lands and BLM lands, so these areas have traditionally been managed to align with BLM hunt regulations (which conform to State regulations), including allowing recreational coyote hunting. However, the Service does not issue permits for coyote hunting “contests” at Malheur NWR, for several reasons, including unacceptable disturbance impacts to other game and nongame species, conflicts with other user groups, and conflicts with the Service’s BIDEH policy. Trapping (an allowable method under State rules to take coyote and rabbit) is not permitted on the Refuge.

Proposed Changes to the Use: Long range rifles, including .22s, are not appropriate in the Blitzen Valley due to safety concerns. Therefore, we will publish a refuge-specific regulation allowing only shotguns for hunting rabbits and hares in the Buena Vista

and North Malheur Lake units. To ensure that hunting does not occur during breeding seasons for migratory birds and other wildlife, we will publish a refuge-specific regulation allowing take of rabbit and hare on the Burna Vista and North Malheur Lake Units only during State upland game bird seasons. Per Federal regulations at 50 CFR 32.2(k), hunters may only possess or use nontoxic shot on these units.

Why is this use being proposed or reevaluated?

This use is being reevaluated to address Secretarial Orders 3347, 3356, and 3447, to open new hunting opportunities on National Wildlife Refuges and to more closely align Refuge hunting regulations with State hunting regulations.

Availability of Resources

To comply with the Refuge Recreation Act (Public Law 87-714), the Project Leader must determine whether sufficient resources—financial, staffing, facilities, or other infrastructure—are available to support the proposed use without materially interfering with the refuge purpose(s) or the mission of the National Wildlife Refuge System. This determination should be informed by a review of current capacity and, where applicable, the refuge’s Comprehensive Conservation Plan (CCP).

Assessment of current resources and capacity

Availability of resources for administering and managing the hunt program, including waterfowl hunting, migratory bird hunting, upland game hunting, and big game hunting, are shown in Table 1.

Table 1. Costs to Administer and Manage Migratory Bird Hunting at Malheur NWR

Category and Itemization	One-time Cost	Recurring Annual Expenses
Develop hunt plan amendment/opening package	\$5,000	--
Construct facilities	--	--
Develop and print updated brochures	\$500	\$500
Survey and post use area boundary	\$5,000	\$2,500
Staff time (programmatic, law enforcement, information)	--	\$2,000
Administer Buena Vista Unit deer hunt	--	\$2,500
Maintenance	--	\$10,000
Total one-time expenses	\$15,000	
Total recurring annual expenses		\$17,500

Administering the upland game hunt program does not require significant staff time, equipment, or funding. In general, the upland hunt program uses many of the same facilities as the wildlife observation, photography, and interpretation program, including public access roads, trails, and parking areas, and signs. Additional costs and staff time includes maintenance, posting signs, and updating and printing hunting brochures and developing new publications.

The Refuge does not have a law enforcement officer on site, but receives support from the Zone Law Enforcement Officer and the County Sherriff's Department during the hunting season to ensure compliance with state and Federal, and Refuge-specific regulations. The Refuge will continue to develop partnerships and seek additional funding resources as necessary to support hunting.

Impacts of changes to resources and capacity

The availability of resources is subject to change and the level of use provided may vary based on current staffing, partner support, funding, or infrastructure conditions. Costs may increase over time, in relation to changes in the costs for equipment, maintaining facilities, etc. A substantial increase to the number of requests may also create the need for additional resources to administer the use. The Project Leader

will use sound professional judgment in evaluating whether the refuge or its partners can develop, operate, and maintain the use in a compatible manner.

For priority public uses—including hunting, fishing, wildlife observation and photography, or environmental education and interpretation—if resource conditions shift such that the refuge can no longer sustain the use in a compatible manner, the Project Leader may temporarily modify or suspend the use pursuant to 50 CFR 25.21(E). If it becomes apparent that insufficient resources will be sustained into the long-term, the Project Leader may re-evaluate the compatibility of the use and discontinue the use if necessary. The public will be notified of any changes to refuge uses, including temporary modification or suspension, re-evaluation of compatibility and/or discontinuing of refuge uses.

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 socioeconomics 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

While hunting has no positive effects on target species as the activity is occurring, it is well recognized that this activity has given many people a deeper appreciation of wildlife and a better understanding of the importance of conserving their habitat, which has ultimately contributed to the Refuge System mission.

Hunting can contribute indirectly to the well-being of wildlife by providing financial, educational, and sociological benefits to hunters. Hunting has given many people a deeper appreciation of wildlife and a better understanding of the importance of wildlife and habitat conservation, which ultimately contributes to the NWRS mission. The hunting community remains the largest support base for funding wildlife management programs, and 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.

Short-term impacts

Impacts to Vegetation and Habitat

Since access to upland and big game hunting areas is walk-in, associated foot travel

from accessing the North Malheur Lake, Buena Vista, and Boundary Units for hunting could potentially result in temporary and minor vegetation trampling and the potential creation of social trails. Pedestrians can cause structural damage to plants and increase soil compaction and erosion (DeLuca et al. 1998; Whittaker 1978). Because hunting requires off-trail use in the pursuit and/or recovery of game, plants may be trampled, and biotic soil crusts may be disturbed.

Roads and trails often function as conduits for movement of nonnative, invasive plant species (Benninger-Truax et al. 1992; Hansen and Clevenger 2005). Most invasive plants also need some form of transportation to reach new areas (Trombulak and Frissell 2000). Several potential modes of transportation, or “vectors,” including vehicle traffic on roads, hunters on foot, their dogs, and hunting equipment may inadvertently transport propagules of invasive plants onto the Refuge. Impacts are expected to be minor due to the small number of hunters involved in this activity and the dispersed nature of hunting.

Impacts to Hunted Wildlife

Sport hunting involves the direct take of wildlife designated as huntable game species by regulation. In addition to loss of target individuals, additional birds or other wildlife are sometimes crippled or killed and not retrieved.

Hunting causes disturbance to both target and non-target wildlife due to noise (gunfire), movement, vehicular traffic, and use of dogs for hunting activities. It can also alter behavior, population, structure, and distribution patterns of wildlife (Owens 1977; Raveling 1979; White-Robinson 1982; Thomas 1983; Bartlett 1987; Madsen 1985; Cole and Knight 1990; Dooley et al. 2010). Disturbance levels from hunting activity outside Chincoteague NWR 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).

Impacts to Non-Hunted Wildlife:

Non-hunted wildlife would include any non-target waterfowl and other birds; small- and medium-sized mammals; reptiles; amphibians; and invertebrates. Occasionally, non-target species are illegally killed by hunters by accident or intentionally, or are disturbed by hunter presence or noise.

A substantial portion of the refuge is open to upland game and big game hunting. Disturbance to the foraging or resting activities of migrating or resident birds may occur. However, disturbance is believed to be moderate to minor for the following reasons. Hunting seasons do not coincide with nesting seasons; thus, reproduction will not be reduced by hunting. The expected number of upland game bird hunters after opening weekend is small, thus both hunter competition and disturbance issues are minor. Prohibiting overnight camping decreases the likelihood of hunters roaming

long distances in the hunt units. In addition, hunter education courses are required for youths.

Dogs used by waterfowl and upland game bird hunters increase the level of disturbance to target and non-target species. 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). Many of these authors indicated that dogs with people, dogs on leash, or loose dogs provoked the most pronounced disturbance reactions from their study animals. 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. Indirectly, domestic dogs can also potentially introduce various diseases and transport parasites into wildlife habitats (Sime 1999). However, disturbance impact of dogs to non-target species is expected to be minor, and is encouraged to support waterfowl, migratory bird, and upland game bird hunting. Dogs are required to be under the close control of their owners while on the Refuge.

Greater sage-grouse (*Centrocercus urophasianus*) is a species of conservation concern in Oregon, as populations have dropped dramatically from historic levels. Significant, proactive conservation efforts and management plans have been developed by states and federal agencies to protect its habitat, in hopes that formal ESA listing can be avoided by these collaborative actions. Incidental post-breeding observations of sage-grouse have been made in recent years in the southeast portion of the Blitzen Valley. Impacts from upland game and big game hunting to greater sage-grouse is anticipated to be minor to negligible. The greater sage-grouse is not a hunted species on the Refuge, although disturbance may result from noise related to hunting activities during the hunting season, which overlaps with the most recent seasonal observations of sage-grouse on the Refuge. Public education will assist in raising awareness and preventing undue impacts to these species. If uses result in unacceptable adverse effects to sage-grouse or its habitats, the Refuge will impose restrictions to mitigate disturbance.

Sandhill cranes stage on the southern portion of Malheur Lake and in the Buena Vista wetlands in August and September, and depending on weather, a small number of birds may remain into mid-October. Other birds using the area may be disturbed by noise and human presence; however, since most birds will have already migrated through the area by the time hunting begins, disturbance levels will be expected to be minor overall. Outreach with hunting brochures and timely information on the website will help educate hunters on hunting opportunities, regulations, and ethical hunter behavior.

Another species of conservation concern, the Columbia spotted frog (*Rana luteiventris*) have been documented in limited areas on the Refuge (Engle 2001; Pearl et al. 2010; Rombough and Engler 2010; ODFW 2011). The Great Basin distinct

population segment (DPS) is a Federal candidate species; however it appears Refuge populations belong to the Oregon population, which is not a candidate listing under the Endangered Species Act. It is anticipated that impacts from waterfowl and migratory bird hunting would be minor to negligible. Frogs will most likely be hibernating during the winter, and hunting season ends prior to their breeding season.

Disturbance to other taxa is unlikely or negligible for the following reasons. Encounters with reptiles and amphibians, invertebrates, and small mammals in the early fall will be few. Refuge regulations further mitigate possible disturbance by hunters to non-hunted wildlife. Vehicles are restricted to public roads and the harassment or taking of any wildlife other than the game species legal for the season is not permitted.

Impacts to Listed Species

The Federally endangered Malheur wire-lettuce (*Stephanomeria malheurensis*) historically occurred in the vicinity of the Malheur NWR is not known to have occurred on the Refuge. Therefore, waterfowl and migratory bird hunting would have no effect on Malheur wire-lettuce. The monarch butterfly, a species proposed for listing, has been documented on the Refuge (Pearsall 2020). The Service prepared an intra-Service Section 7 consultation and has determined that hunting may affect, but is unlikely to adversely effect, monarch butterfly.

Impacts to Other Priority Public Uses

Hunting has the potential to disturb Refuge visitors engaged in other priority public uses; however, given the season during which hunting occurs, the likelihood of conflicts is low. The number of visitors to the Refuge during this season is drastically lower than in other seasons. Although Center Patrol Road is the most popular attraction during the migration seasons, use is also very light during hunting season, and state regulations also prohibit shooting from, on, and across roads. Fishing along the Blitzen River from Sodhouse Lane to Boat Landing Road concludes prior to the hunting season opening. Generally, winter use on the Refuge is only a fraction of the use during the spring and fall seasons.

Effects of Lead Hunting Ammunition

Several species of raptors, including bald and golden eagles and several hawk species, that migrate through the Refuge during the hunting season, or winter on the Refuge, are known to forage on gut piles and unretrieved game left by hunters (Slabe et al. 2020).

Impacts of lead ammunition used for rabbit, hare, and coyote hunting: Introduction of lead into the environment as a result of rabbit, hare, and coyote hunting would be low for a number of reasons. First, we would allow only shotgun for taking rabbit and hare, except for on the Boundary Unit, for safety reasons. Under Federal regulation

(50 CFR 32.2(k)), lead shot is not allowed for waterfowl, migratory bird, and upland game hunting on the Buena Vista, North Malheur Lake, and South Malheur Lake units, since there are designated as areas where hunters can possess only approved nontoxic shot. The application of this regulation is necessary to ensure compatibility because hunting occurs in waterfowl habitat areas. The use of lead ammunition (both shot and single-projectile) is currently allowed on the Boundary Unit. Most rabbit and hare hunters use shotguns. Lead could be introduced into the environment through offal of field dressed rabbits and hares, or animals that are shot but not retrieved. Jackrabbits in particular are considered nuisance animals and may be shot and left in the field, representing another potential source of lead to scavenging birds and mammals on the Boundary Unit.

Hunters who harvest medium-sized to large furbearers such coyote often use bullets designed to fully disintegrate in their target without leaving the body, minimizing exit wounds and preserving pelts. However, these types of ammunition leave numerous lead fragments in carcasses. In the inland Pacific Northwest, including Washington and Idaho, researchers found spikes in lead-poisoned bald and golden eagles during the winter coyote hunting season (Stauber et al. 2010). The authors believed that coyote carcasses left in the field undoubtedly posed a much greater risk of lead poisoning because the entire carcass is available for consumption. However, the Boundary Unit is small compared to the total Refuge area, and hunter use of the area appears to be low. Therefore, coyote harvest would represent only a small fraction of harvest and a minor source of lead in the local area.

Lead impacts from big game hunting: Mortality of eagles due to lead poisoning is well documented. Lead poison may weaken raptors and increase mortality rate by leaving them unable to hunt or more susceptible to vehicles or power line accidents (Kramer and Redig 1997). In a study of bald eagles and golden eagles admitted to the Raptor Rehabilitation Program, College of Veterinary Medicine, at Washington State University from 1991 to 2008 it was found that 48% of bald eagles and 62% of golden eagles tested had blood lead levels considered toxic by current standards. Of the bald and golden eagles with toxic lead levels, 91% (bald) and 58% (golden) respectively, were admitted to the rehabilitation facility after the end of the general deer and elk hunting seasons in December (Stauber et al. 2010), showing a strong relationship between lead poisoning in eagles and big game hunting seasons.

Several studies of free-flying bald and golden eagles have shown that eagles have elevated blood lead levels during big game hunting seasons, due to ingestion of lead ammunition fragments from unretrieved game and gut (offal) piles left by hunters (Bedrosian et al. 2012, Slabe et al. 2020, Slabe et al. 2022, Watson and Davies 2015). Studies of blood lead levels in free-flying eagles found that eagles with elevated blood levels showed no clinical signs of poisoning and most survived for extended periods following exposure (Bedrosian et al. 2012, Watson and Davies 2015). However,

Bedrosian and colleagues found dead eagles with confirmed lead poisoning during the hunting season within the study area. Therefore, it appears there is large variation among individuals in the amount of lead that can be tolerated. The authors concluded that more studies needed to be conducted on lethal levels and lead burdens that can be tolerated by this species. Cumulative effects of lead ammunition on longevity, behaviors, and breeding success remain unknown and may be a significant source of mortality.

More recently, correlative population-level studies of bald eagles using long term necropsy datasets showed that lead exposure decreased population growth rates, making it likely that eagle populations overall have stabilized at a lower level than they would have in the absence of lead (Hanley et al. 2021, Hanley et al. 2023, Slabe et al. 2022).

To reduce the likelihood of raptors and other animals ingesting lead ammunition from discarded furbearer carcasses and offal, we will publish information on alternatives to lead ammunition in the Refuge Web site, signage, and informational materials, and encourage hunters that use lead ammunition to follow the voluntary best management practices (BMPs) adopted by the Association of Fish and Wildlife Agencies (AFWA). These BMPs include removing harvested animals, and fully recovering game (<https://www.mafwa.org/voluntary-bmps>). However, we recognize that these measures may not always be practical. While it is possible that individual eagles may experience decreased fitness or death from ingestion of lead from consuming big game remains on the Refuge, hunting on Malheur NWR represents only a small percentage of big game hunting in the counties the Refuge lies within, and therefore contributes only a small percentage of total lead that could be encountered by eagles in the Refuge area. Big game hunting on Malheur NWR would represent a small potential contribution to total eagle mortality and a negligible population level effect in the region or State.

Other scavenging species that occur on the Refuge, including crows and ravens, bears, coyotes, and mountain lions, are likely to forage on gut piles and carcasses left by hunters (Slabe et al. 2020). A study of common ravens found that these species have seasonal increases in blood lead levels associated with big game hunting seasons, similar to those documented in raptors (Bedrosian and Craighead 2008, 2009). However, population level impacts to ravens have not been documented.

As with raptors and corvids, mammals are primarily exposed to lead through ingestion of lead shot and bullet fragments in carcasses or gut piles left by hunters. Scavengers such as coyotes, bears, and mountain lions have exhibited elevated lead blood levels during fall big game hunting seasons (Bedrosian and Craighead 2006, Burco et al. 2012, Rogers et al. 2012, Fuchs et al. 2021, Kelly et al. 2021).

However, mortality in mammals due to lead ingestion is not as prevalent as it is in birds, because they forage using different methods, and are typically not exposed to large amounts of lead at once relative to their body mass. It is expected that due to

feeding behaviors, some mammal species are more likely than some bird species to be exposed to smaller amounts of lead, relative to body mass, but over extended periods of time (Hydeskov et al. 2024). Acute poisoning of mammals appears to be rare, and there are no studies to date that demonstrate population-level effects of lead ammunition in mammalian species. While it is possible that individual coyotes, bears, and mountain lions may experience decreased fitness or very rarely, death from ingestion of lead from consuming big game remains on the Refuge, this would represent a small potential contribution to total mortality and a negligible population level effect in the region or State.

In summary, although hunting of deer, pronghorn, coyote, rabbit, and hare would add lead to the environment through use of lead ammunition, the amount would be very small due to the limited number of hunters pursuing these species on the Refuge and the limited harvest of these animals. Impacts of lead on eagles and other avian and mammalian scavengers would be negligible in comparison to lead from existing off-Refuge hunting activity in the area.

Long-term impacts

Impacts to upland game bird populations

Harvest and season regulations for upland game birds are set by the ODFW through their Upland Game Bird Hunting Season Framework, which is updated every 5 years based on population and production surveys (ODFW 2025). Hunting seasons and daily bag/possession limits are established to maximize hunting opportunities over the next 5 years.

Population data of upland game birds is provided by ODFW through upland game bird production inventories. Production inventories are typically conducted during the last half of July or the first half of August on established routes throughout Oregon. ODFW biologists record the number of birds spotted, species observed, the gender of birds observed (if possible), number of chicks observed, and number of chicks in complete broods, which produces a production index (number of chicks/adult). A population index for each species is calculated as birds per 10 miles along survey routes.

Since these indices are not a full population sample, these surveys detect an unknown proportion of the population and consequently, the numbers cannot be used to provide an estimate of the total population. However, the data collected can be used to generate population trends, and the greater the increase in birds for a given year, the more likely ODFW biologists will be to count more birds (ODFW 2010a). When considered collectively, these indices are generally a good predictor of fall populations and harvest for some of the popularly hunted species such as ring-necked pheasant, gray partridge, California quail, and chukar. Upland game bird populations can vary greatly from year to year. Generally, hunting has little influence over the annual population fluctuations of upland game birds. Weather and habitat conditions drive population trends (ODFW 2025b).

Harvest data of upland game birds is reported by hunters to ODFW annually through random email surveys of approximately 19% (n=8,853) of upland game bird validation holders. The hunters report by harvest unit, and Harney and Malheur counties are combined into one harvest unit, Area 7 (ODFW 2025c). Harvest data at the Refuge level is not available.

Based on harvest data collected from ODFW's annual email survey from the 2024-2025 season, upland game bird harvest in Harney and Malheur counties included 39 percent of pheasant hunted statewide, 50 percent of California quail hunted statewide, 39 percent of Hungarian (gray) partridge, and 60 percent of chukar partridge hunted statewide. As the surveys are recorded by harvest unit, it is impossible to disaggregate the harvest information to determine the number of harvests in Malheur County or Harney County alone, or even at the Refuge level (Budeau 2011, personal communication). Based on the availability of habitat to support upland game birds in Malheur County, particularly pheasants, it is highly likely that a majority of upland game birds harvested in this unit are actually in Malheur County rather than Harney County, which the Refuge is located in (Budeau 2011, personal communication). Still, pheasants harvested in Harney County are most likely harvested on the Refuge because of the high quality of hunt available on the Refuge and the limited suitable habitat off-Refuge (Budeau 2011, personal communication). This pattern is likely true for other upland game birds too. Based on this information, the number of harvests at the Refuge-scale is expected to be considerably less than harvests reported at the harvest unit scale (Unit 7).

Population impacts to ring-necked pheasant: The 5-year average production index for ring-necked pheasant (2021-2025) was 3.8 chicks per adult and the 5-year average abundance index was 3.1 birds per 10 miles. The pheasant abundance index was above the 5-year average in 2024 and 2025, with 4.4 and 3.5 birds/10 miles respectively. Production indices fell off in 2025, from the 5-year average of 3.8 and 2024 index of 4.0 chicks per adult, to 2.3, although the Malheur district had better numbers than most parts of the state (ODFW 2025b). Although pheasants are not as abundant in Oregon as they historically were due to land use changes, even areas with limited pheasant numbers can continue to provide hunting since only roosters are legal game (ODFW 2025a).

Total pheasant harvest in Oregon in 2024-25 was 23,334 birds. Area 7 had the second-highest pheasant harvest in the State. 3,236 hunters harvested 8,119 pheasant, so an average of 2.5 birds per hunter were harvested during the 2024-25 season (ODFW 2025c).

Population impacts to gray partridge: The 5-year average production index for gray partridge (2021-2025) was 3.2 chicks per adult and the 5-year average abundance index was 1.2 birds per 10 miles. The abundance index for gray partridge was rose to 2.0 birds/10 miles in 2024 and then dropped to 1.0 birds/10 miles in 2025. Production indices fell off in 2025, from the 5-year average of 3.2 and 2024 index of 2.9 chicks per

adult, to 1.4 (ODFW 2025b).

Total gray partridge harvest in Oregon in 2024-25 was 25,925 birds, double the 2023-24 harvest. Area 7 had the highest gray partridge harvest in the State. 3,042 hunters harvested 10,076 gray partridge, so an average of 3.3 birds per hunter were harvested during the 2024-25 season (ODFW 2025c).

Population impacts to chukar: Factors most affecting chukar populations are severe winters, spring drought, and/or wet conditions during the hatching period. As a result, chukar populations can be cyclical, running in approximately 10-year cycles, but they can rebound quickly (ODFW 2015). The 5-year average production index for chukar (2021-2025) was 2.7 chicks per adult and the 5-year average abundance index was 33.5 birds per 10 miles. Chukar peaked in 2024 with an abundance index of 55 birds/10 miles, and fell off in 2025 to 40.6 birds/10 miles. Production indices fell off in 2025, from the 5-year average and 2024 index of 2.7 chicks per adult, to 0.9 (ODFW 2025b).

Harvest data of upland game birds is reported by hunters to ODFW annually, although harvest data at the Refuge level is not available. ODFW conducts annual harvest surveys to determine statewide hunter effort and take for upland birds. These surveys randomly select hunters for surveying and occur via email during hunting seasons. The hunters report by harvest unit, and Harney and Malheur counties are combined into one harvest unit, Area 7 (ODFW 2025b). The 10-year average annual chukar harvest in Oregon from 2008-2017 was 41,410; in any given year more than half of these birds were taken in Harney, Lake, and Malheur counties (ODFW 2016). As expected, given the population cycles in this species, harvests can vary greatly from year to year, from as low as roughly 23,000 in 2013-14 to over 137,000 in 2024-25 (ODFW 2025b). Chukar harvest in Area 7 exceeds that in the rest of the State combined. 9,732 hunters harvested 82,386 chukar, so an average of 8.5 birds per hunter were harvested during the 2024-25 season (ODFW 2025c).

Population Impacts to California Quail: California quail is considered underutilized in Oregon (ODFW 2015). The 5-year average production index for California quail (2021-2025) was 2.1 chicks per adult and the 5-year average abundance index was 14.0 birds per 10 miles. The quail abundance index was below the 5-year average in 2024 and 2025, with 10.7 and 12.9 birds/10 miles respectively. Production indices fell off in 2025, from the 5-year average of 2.1 and 2024 index of 2.2 chicks per adult, to 1.3. However, quail abundance increased in the Malheur District and has been undergoing long-term increases in the Harney District, even though overall production is down (ODFW 2025b)

The 10-year average annual California quail harvest in Oregon (2008-2017) was 33,305 birds (ODFW 2018). Total harvest in Oregon in 2024-25 was 54,925 birds, well above long term averages. Half of all California quail harvested in Oregon are harvested in Area 7. 3,716 hunters harvested 27,505 California quail, so an average of 7.4 birds per hunter were harvested during the 2024-25 season (ODFW 2025c).

Summary of Population Impacts to Upland Game Birds: In 2010-2011, an estimated 850 hunters visited the Refuge to engage in upland game bird hunting, which accounted for over 90 percent of Refuge hunting visits. With improvements made to habitat management and access, and enhanced hunting opportunities, the number of upland game hunting visits grew over the next 15 years to 1,000 visits per year. The Buena Vista Hunt Unit is one of the most popular hunting areas in Harney County for ring-necked pheasant. Hunting of upland game birds (California quail, chukar, Hungarian partridge, and ring-necked pheasant) is permitted on this unit.

Refuge harvest of all upland game birds combined, estimated at 500-600 birds annually, constitutes about 1 percent of the entire harvest in Harney and Malheur counties. Given the wide range of upland game birds and 61,414 acres available to hunt these species on the North Malheur Lake Unit, Buena Vista Unit, and Boundary Unit, it is expected that the overall upland game bird hunting pressure may increase slightly, but remain low. These species are managed by the State for a sustainable harvest; therefore, impacts of the Refuge hunt would be negligible in terms of total state population in the long term. Additionally, given the low level of take and the distribution of the hunt units, the hunt program as designed is not expected to adversely affect the Refuge's ability to maintain healthy populations of upland game birds.

Population-specific Impacts to Nuttall's Cottontail and Black-tailed Jackrabbit: An estimated 10 to 12 hunters use the Boundary Hunt Unit to pursue rabbit and/or coyote each year (Megan 2011). Statewide statistics on rabbits harvested are not available; however, ODFW (date unknown) states that rabbit hunting is the third most popular type of hunting activity in the United States, behind wild turkey and deer hunting.

Population estimates for local rabbit populations are unavailable; however, a study done in Central Oregon in 1972-1973 that used monthly censuses in a shrub-juniper scabland habitat (McKay and Verts 1978) reported that Nuttall's cottontail population densities ranging from 6.6 to 254.4 animals per 100 ha (2.6 to 103 animals/100 acres), with marked seasonal fluctuations.

Lagomorphs are capable of extremely high productivity; a doe jackrabbit produces 2 to 6 young every 6 weeks during the breeding season, from February to June. The young born in February become sexually mature by early summer. As a result, lagomorphs are very important prey for a number of predators. Black-tailed jackrabbits naturally undergo 10- to 11-year population cycles.

Without better local data on harvest and population, only general conclusions are possible, based on reasonable assumptions and life history information. Currently, a small number of hunters is thought to hunt rabbits within the Boundary Hunt Unit, and hunting levels in the unit are expected to change little over the next 15 years. If habitat conditions remain stable (jackrabbits are sensitive to reduction in population with wildfire [Kochert et al. 1999]), hunting of jackrabbits and rabbits is likely to have

a negligible effect on local or regional rabbit populations.

Population Impacts to Mule Deer: The Boundary Unit is located within the State of Oregon Juniper Unit. Although overall harvest of deer within the Boundary Unit area during the several open seasons is unknown, it is estimated that during one of the open hunts (the late-season muzzleloader hunt), approximately half of the 10 tag-holders use the Boundary Hunt Unit (Megan 2011).

Mule deer across the West and in Oregon are declining in population and are below current management objectives in Oregon. Populations have dropped by about a third statewide since 1980 (Whittaker 2011) after having reached a peak in the 1950s and 1960s (ODFW 2011b). Deer populations in the State unit encompassing the Refuge (Steens Mountain Unit) have dropped in the last 50 years, from more than 11,000 deer at their population peak to a current population of 4,000, well below the State's population objective of 11,000 deer. Populations on the Juniper Unit, which includes the Refuge's Boundary hunt unit, are currently estimated at 1,300, below the State's population objective of 2,300 (ODFW 2024). ODFW attributes the primary causes of the observed decline to the combined effects of drought and severe winters, coinciding with an increased number of predators, fire impacts on winter range, and juniper expansion at higher levels.

Continuing to allow mule deer harvest on the Boundary Hunt Unit will continue an incremental level of pressure on a declining population. However, given that the Boundary Unit constitutes a small fraction of the area of the Juniper Unit, and harvest within the Juniper Unit is less than 1 percent of the eastern Oregon harvest, the additional local and regional population pressure stemming from hunting on the Boundary Unit is expected to be negligible to minor. The State of Oregon (ODFW 2011b) has identified a number of strategies to boost mule deer populations, none of which include reduced hunting in the Juniper Hunt Unit.

The Service runs a limited hunt for mule deer (not to exceed four tags annually; short-range weapons only) on the Buena Vista Unit, which are managed as part of the ODFW Steens Mountain Unit. In 2019, 88 hunters harvested 14 bucks on the Steens Unit, a 16% success rate (ODFW 2016-2021). Data for muzzleloader hunting on the Steens Unit was not available; however, muzzleloader hunters had a 60% success rate on the Juniper Unit in 2019. Assuming hunter success rates on the Buena Vista Unit are similar, the estimated annual harvest of 2 mule deer represents a negligible fraction of deer harvest in Harney County or statewide.

Population Impacts to Coyote: Refuge-specific data on past coyote harvest are not available. According to an ODFW report (Hiller 2011), coyote populations have increased substantially in both abundance and distribution during the past several decades. Hiller further reported that southeastern Oregon leads harvest by both trappers and hunters, with Harney County having 486 coyotes taken by hunters and 276 coyotes taken by trappers in 2010. However, by Oregon Revised Statute (ORS 610.002), coyotes are classified as predatory animals (which may be taken without

permit, limits, or reporting on private lands); therefore, the report likely underestimates coyotes hunted or trapped for control purposes on private lands. In eastern Oregon, coyotes are the second-most common animal trapped, second only to muskrat (Hiller 2011).

Gese (2005) examined a variety of coyote population parameter responses under exploitation and compared these with responses under no exploitation, as part of a 7-year study. In the experimental area, coyote removal rate was estimated at 44 percent to 61 percent and 51 percent to 75 percent, in each of 2 years of removal. The study found that home range sizes remained the same in both the experimental and control areas. Litter sizes increased significantly in the removal area 2 years after the beginning of the removal. However, litter sizes were confounded by changes in the prey base. Litter size was significantly related to rabbit abundance, while rodent abundance was less of a factor. Accounting for changes in both prey abundance and coyote density, litter size was significantly related to total prey abundance per coyote.

Although the harvest of coyotes on the Refuge's Boundary Unit is unknown, the Refuge law enforcement officer estimated in 2015 that 10-12 hunters per year pursue coyote or rabbit within the Boundary Unit. Given the data above and the study by Gese, it is unlikely that coyote harvest on Malheur Refuge is negatively impacting coyote populations.

Population Impacts to Pronghorn: The Boundary Unit is located at the eastern edge of the State of Oregon Juniper Hunt Unit 71. ODFW estimated the population for the Juniper unit at 1,300-1,388 animals in 2021-23 based on aerial surveys, about 9 percent of the total State population. In 2024, 58 hunters harvested 55 pronghorn in this unit (ODFW 2025e). The total State harvest was 1,598. Although the Refuge harvest number is unknown, the Refuge law enforcement officer estimates that approximately half of the hunters with tags for the late-season muzzleloader hunt concentrate along the Boundary Unit.

Linear survey data for pronghorn presented back to 1945 (ODFW 2010d) allow trend analysis (at least at the State level), which permits some conclusion about whether populations may be increasing or decreasing. Between 1978 and 2008, pronghorn at the State level have increased at an average rate of approximately 2 percent per year. Given overall population trends as well as the percentage of pronghorn taken in the local State hunting unit, it is unlikely that Refuge harvest will negatively impact pronghorn populations.

Public Review and Comment

The draft compatibility determination will be available for public review and comment for 30 days in conjunction with the release of the 2026-2027 Sport Hunting and Fishing Regulations (Proposed Rule) to comply with the National Environmental

Policy Act and with Service policy, before expanding rabbit and hare hunting on the Refuge.

A hard copy of this document will be posted at the Refuge Headquarters at 36391 Sodhouse Lane, Princeton, OR 97721-9502. It will be made available electronically on the Refuge website <https://www.fws.gov/refuge/malheur> and in the Federal Register as part of the Proposed Rule. The public may submit comments or requests for additional information through any of the following methods:

Email: HuntFishRuleComments@fws.gov Include “Malheur Hunt Expansion” in the subject line of the message.

U.S. Mail: U.S. Fish and Wildlife Service, Attn: Refuge Manager, Malheur NWR, .36391 Sodhouse Lane, Princeton, OR 97721-9502

Determination

Is the use compatible?

Yes

Choose an item.

Stipulations Necessary to Ensure Compatibility

1. Only federally approved nontoxic shot may be used or be in possession while hunting on the North Malheur Lake, South Malheur Lake, and Buena Vista Units, with the exception of buckshot for deer.
2. The Refuge will inform hunters of voluntary Best Management Practices to reduce unintended ingestion of lead ammunition and fishing tackle by wildlife. Links to <https://www.mafwa.org/voluntary-bmps> will be posted on the Refuge Web site, hunt leaflets, and signage.
3. Vehicles will be allowed only on maintained public roadways. Parking is allowed only within one vehicle length of the roadway. Hunters will be instructed to not block dike and field accesses.
4. Overnight parking, camping, and campfires will not be permitted on the Refuge.
5. Hunting dogs are strongly encouraged to increase hunter success and retrieval rate. Dogs must be kept under close control.
6. Hunting closures will be in effect near Refuge Headquarters, Buena Vista Station, and the Malheur Field Station. Shooting from or across public roads or road right-of-ways will be prohibited.
7. Law enforcement patrols will ensure safety and minimize conflicts with other

priority public uses by providing information about hunting boundaries and seasons to the general public and those using other Refuge programs. Information will be provided at interpretive kiosks, on the Refuge website, and in Refuge offices.

8. Hunters must maintain a distance of at least 400 meters (¼ mile) from roosting sandhill cranes. The Refuge may selectively close areas, as detected, to protect roosting cranes within hunt areas with spatial buffers. As closures are implemented, the Refuge will supply hunters with maps of closures to hunting activity.

Justification

Upland game and big game hunting, as outlined in this compatibility determination, would not conflict with national policy to maintain the biological diversity, integrity, and environmental health of Malheur National Wildlife Refuge. Population objectives and allowable harvests are determined by the State using an established annual regulatory process. Limited hunt seasons at the Refuge in significant wildlife areas, and no hunt zones, ensure that both target and non-target species, will find adequate food and rest areas on the Refuge even in the midst of the hunting season.

Populations of upland game birds, rabbit, hare, coyote, mule deer, and pronghorn are unlikely to be affected significantly by the hunting program on the Refuge.

Based on the stipulations outlined above, it is anticipated that wildlife populations will find sufficient food resources and resting places such that their abundance and use of the Refuge will not be measurably lessened as a result of allowing upland game and big game hunting on Malheur National Wildlife Refuge. The relatively limited number of individual animals expected to be adversely affected as a result of upland game and big game hunting will not cause wildlife populations to materially decline, the physiological condition and production of species present will not be impaired, their behavior and normal activity patterns will not be altered dramatically, and their overall welfare will not be negatively impacted. Based on available science and best professional judgement, the Service has determined that upland game and big game hunting at Malheur National Wildlife Refuge, in accordance with the stipulations provided here, would not materially interfere with or detract from the National Wildlife Refuge System mission or the purposes of the Malheur National Wildlife Refuge. Rather, appropriate and compatible upland game and big game hunting would be a use of the Malheur National Wildlife Refuge through which the public can develop an appreciation for wildlife and wild lands.

Signature of Determination

Refuge Manager Signature and Date

Signature of Concurrence

Assistant Regional Director Signature and Date

Mandatory Reevaluation Date

2041

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