

Draft

Environmental Assessment for Waterfowl, Other Migratory Birds, Upland Game, and Big Game Hunting at Stillwater National Wildlife Refuge and Fallon National Wildlife Refuge

Date: March 2020

This Environmental Assessment (EA) is being prepared to evaluate the effects associated with this proposed action and complies with the National Environmental Policy Act (NEPA) in accordance with Council on Environmental Quality regulations (40 CFR 1500-1509) and Department of the Interior (43 CFR 46; 516 DM 8) and U.S. Fish and Wildlife Service (550 FW 3) regulations and policies. NEPA requires examination of the effects of proposed actions on the natural and human environment.

Proposed Action:

The U.S. Fish and Wildlife Service (Service) is proposing to open hunting opportunities for antelope (also called pronghorn) on Stillwater National Wildlife Refuge (NWR or Refuge), and to open Fallon National Wildlife Refuge (NWR or Refuge) to hunting waterfowl, other migratory birds, upland game, big game, and other species. In 2003, the Service signed a Record of Decision for the final Comprehensive Conservation Plan and Environmental Impact Statement (CCP-EIS) for the Stillwater NWR Complex. This draft EA is tiered from the 2002 CCP-EIS and focuses specifically on adding opportunities for antelope hunting at Stillwater NWR and opening the Fallon NWR to hunting as described in the Hunt Plan.

This proposed action is often iterative and evolves over time during the process as the agency refines its proposal and learns more from the public, tribes, and other agencies. Therefore, the final proposed action may be different from the original. The final decision on the proposed action will be made at the conclusion of the public comment period for the EA and the Draft 2020-2021 Refuge-Specific Hunting and Sport Hunting Regulations. The Service cannot open a refuge to hunting and/or fishing until a final rule has been published in the Federal Register formally opening the refuge to hunting and/or fishing.

Background:

National Wildlife Refuges are guided by the mission and goals of the National Wildlife Refuge System (NWRS), the purposes of an individual refuge, Service policy, and laws and international treaties. Relevant guidance includes the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997, Refuge Recreation Act of 1962, and selected portions of the Code of Federal Regulations and Fish and Wildlife Service Manual.

Stillwater NWR and the Stillwater Wildlife Management Area (WMA) were established through a 50-year agreement signed in 1948 by the Truckee-Carson Irrigation District, Nevada State Board of Fish and Game Commissioners, and the Service (Tripartite Agreement). In 1949, Stillwater NWR was established as a wildlife sanctuary and closed to hunting. In 1990, Public Law (P.L.) 101-618 (§210(b)(1)) expanded the approved boundary of Stillwater NWR to include Stillwater Marsh. The Tripartite Agreement was not renewed and the WMA ceased to exist. P.L. 101-618 shifted the legal authority for managing the lands now within Stillwater NWR from the Tripartite Agreement to the Refuge System Administration Act. In addition to the boundary expansion, Public Law 101-618 §206(b)(2) also outlined four purposes for which the Service must manage Stillwater NWR, which included providing opportunities for fish and wildlife-oriented recreation, including hunting.

The primary purposes of Stillwater NWR as established by P.L. 101-618 are:

1. Maintaining and restoring natural biological diversity within the refuge.
2. Providing for the conservation and management of fish and wildlife and their habitats within the refuge.
3. Fulfilling international treaty obligations of the United States with respect to fish and wildlife.
4. Providing opportunities for scientific research, environmental education, and fish and wildlife oriented recreation.

Fallon NWR was established in 1931, by Executive Order 5606, with its primary purpose being “as a refuge and breeding ground for birds and other wild animals.” Fallon NWR is managed as part of the Stillwater NWR Complex. Fallon NWR lies 20 miles northeast of the community of Fallon, Nevada, and approximately 70 miles east of Reno.

The mission of the NWRS, as outlined by the National Wildlife Refuge System Administration Act (NWRSA), as amended by the National Wildlife Refuge System Improvement Act (16 U.S.C. 668dd et seq.), 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.”

The NWRSA mandates the Secretary of the Interior in administering the System to (16 U.S.C. 668dd (a) (4):

- provide for the conservation of fish, wildlife, and plants, and their habitats within the NWRS;
- ensure that the biological integrity, diversity, and environmental health of the NWRS are maintained for the benefit of present and future generations of Americans;
- ensure that the mission of the NWRS described at 16 U.S.C. 668dd (a) (2) and the purposes of each refuge are carried out;
- ensure effective coordination, interaction, and cooperation with owners of land adjoining the refuge and the fish and wildlife agency of the States in which the units of the NWRS are located;
- assist in the maintenance of adequate water quantity and water quality to fulfill the mission of the NWRS and the purposes of each refuge;
- recognize compatible wildlife-dependent recreational uses as the priority general public uses of the NWRS through which the American public can develop an appreciation for fish and wildlife;
- ensure that opportunities are provided within the NWRS for compatible wildlife-dependent recreational uses; and
- monitor the status and trends of fish, wildlife, and plants in each refuge.

Therefore, it is a priority of the Service to provide for wildlife-dependent recreation opportunities, including hunting and fishing, when those opportunities are compatible with the purposes for which the refuge was established and the mission of the NWRS.

The Stillwater NWR contributes substantially to the conservation of wildlife and its habitat in the western Great Basin. It encompasses a great diversity of habitat, from freshwater to brackish water marshes and alkali playas, and extensive salt desert shrub lands. These habitats attract nearly 400 species of vertebrate wildlife (more than 280 bird species) and countless species of invertebrates.

Fallon NWR is comprised of playa and wetland habitat in the Carson Sink. This area, in the Lahontan Valley, is at the terminus of the Carson River. In years of high water flows down the river, the Refuge is important for migratory shorebirds and waterfowl.

Purpose and Need for the Proposed Action:

The purpose of this proposed action is to provide compatible wildlife-dependent recreational opportunities on Stillwater NWR and Fallon NWR. The need of the proposed action is to meet the Service's priorities and mandates as outlined by the NWRSA to "recognize compatible wildlife-dependent recreational uses as the priority general uses of the NWRS" and "ensure that opportunities are provided within the NWRS for compatible wildlife-dependent recreational uses." (16 U.S.C. 668dd(a)(4)). The proposed action is consistent with and supports CCP Objectives A.c.4(b), B.e.2, B.e.3, C.a.1, and C.a.2.

Alternatives Considered:

Alternative A – Proposed Action Alternative:

Under the Proposed Action Alternative, 54,063 acres north of Division Road (North Unit) on Stillwater NWR would be opened to antelope hunting. Sport hunting is an ongoing use on the North Unit of Stillwater NWR for big game, other migratory birds, upland game, small game, and other species, (including mule deer, mourning dove, California quail, ring-necked pheasant, mountain cottontail, wild turkey, coyote, and black-tailed jackrabbit). Alternative A adds antelope hunting.

The North Unit would be open to antelope hunting 7 days per week during the State-designated hunting season. In addition, the Taber and Dutchbill units would be open to hunting at the conclusion of their life use estates. These two units could be used for youth, veteran, handicapped, and other special hunting opportunities (including antelope hunting). Hunting in all other areas south of Division Road, and on Service-owned properties outside the Refuge boundary would be prohibited. Refuge property south of Division Road serves as a sanctuary area for wildlife during hunting seasons. Overnight stays are allowed at designated sites within the Refuge boundary and limited to four consecutive nights at one location, not to exceed twelve consecutive nights on the refuge.

Antelope hunting would be allowed through tags issued through the Nevada Department of Wildlife (NDOW). Hunters may obtain only one antelope tag per year. No reservations would be required and antelope hunting would be on a first come, first served basis. Only shotguns, muzzle loading rifles, or bow and arrow are allowed for big game at Stillwater NWR.

On Fallon NWR, all 17,954 acres of the Refuge would be opened to hunting for waterfowl, other migratory birds, upland game, big game, and other species. Species hunted would include mule deer, antelope, mourning dove, California quail, ring-necked pheasant, rabbits, wild turkey, coyote, ducks, geese, swans, coots, moorhens, and snipe. Hunting would be permitted in accordance with NDOW regulations for seasons, licensing, legal shooting hours, and weapons restrictions. Artificial lighting would be allowed for hunting coyotes.

There are no designated hunting areas, blinds, camping sites, restrooms, drinking water, trashcans, trails picnic areas, or other public use facilities on the Refuge. Roads on the Refuge are passable only when dry. Hunting would occur primarily during the fall and winter in accordance with the NDOW hunt regulations and in accordance with the environmental conditions on the Refuge. When there is sufficient water, boating would be allowed during the waterfowl hunt season. Overnight stays are allowed within the Refuge boundary and limited to four consecutive nights at one location, not to exceed twelve consecutive nights on the Refuge. Because there are no developed facilities on Fallon NWR, hunters must bring in all supplies and pack out all trash.

Refuge-specific regulations applicable to these areas will be published in the Federal Register as part of the 2020-2021 Refuge-Specific Hunting Regulations. Take of any approved species on Stillwater and Fallon Refuges must be in accordance with the State of Nevada hunting

regulations and Federal Regulations. Mule deer, antelope, swan, and turkey hunting are allowed by tags issued through the Nevada Department of Wildlife's (NDOW) annual tag drawing. Administration of controlled hunt permitting for mule deer, antelope, swan, and wild turkey is assumed by NDOW. The hunting operations for both refuges would be administered by the Service. The Service manages the refuge's land, habitat, and facilities.

The Service would continue to hold a post-season hunting meeting to gather concerns, suggestions, and other information about the hunt. This meeting would be open to all user groups and interested parties. The information gathered would be used to make appropriate adjustments to improve the quality of future hunts on the Refuges and ensure that they remain compatible. Figure 1 shows the location of the Proposed Action.

Mitigation Measures to Avoid Conflicts:

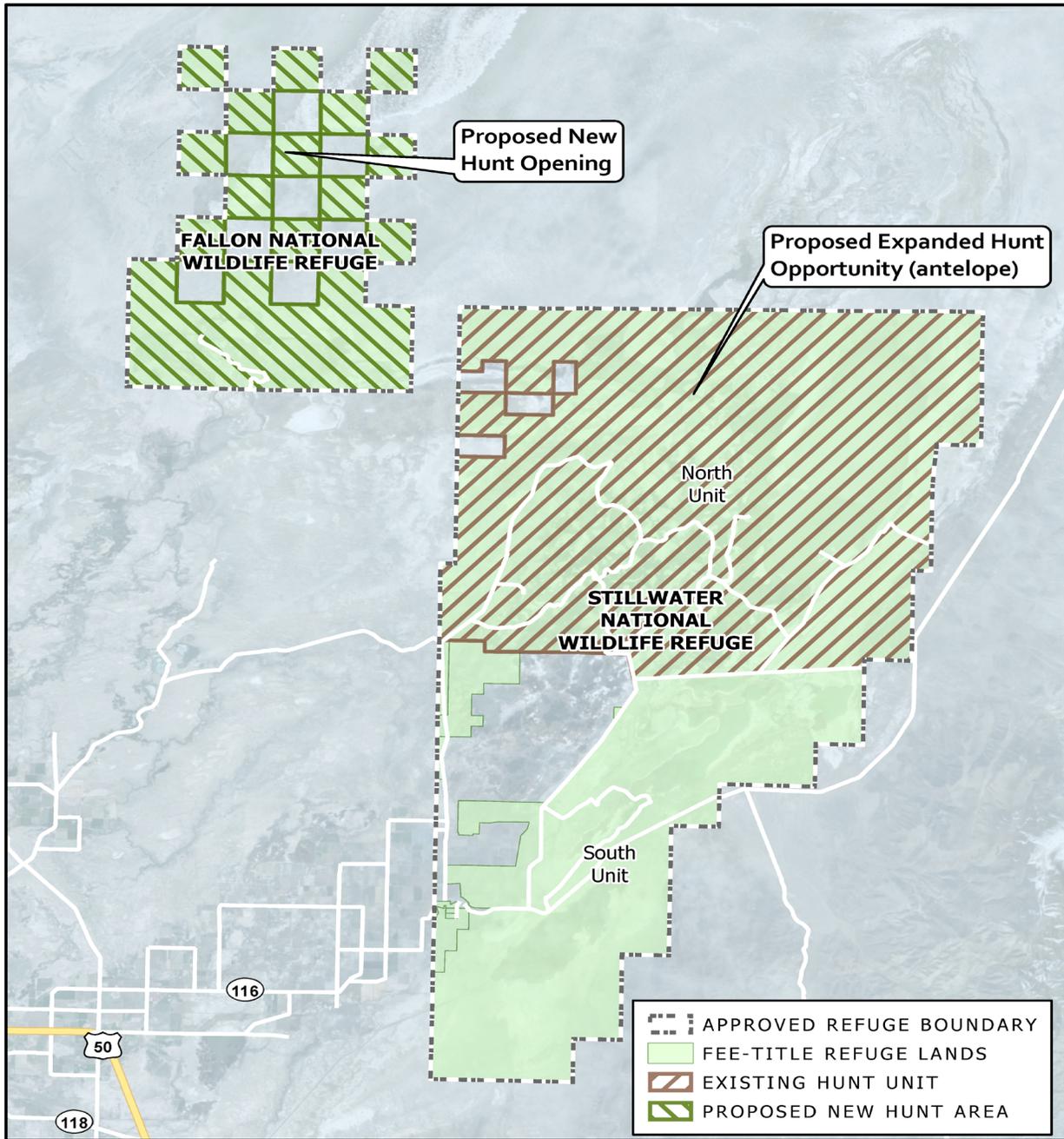
No mitigation measures are needed to open Fallon NWR to hunting. At Stillwater Refuge the Service would continue to take the following measures to avoid conflicts:

1. Sanctuary units will be maintained south of Division Road. The sanctuary units distribute areas needed by wildlife for resting, feeding, nesting, and fawning.
2. Law enforcement presence will be maintained to minimize excessive harvest and other infractions (illegal use of lead shot, take of non-game species, littering, etc.)

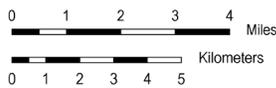
Alternative B — No Action Alternative:

Under the No Action Alternative, the Service would not open Stillwater NWR to antelope hunting; but would continue to allow waterfowl, other migratory bird, upland game, and mule deer hunting on designated areas of Stillwater NWR in accordance with State regulations and the Refuge-specific regulations. Seasons, hours, bag limits, and other rules for hunting on the Refuge are the same as those published annually by the Nevada Department of Wildlife (NDOW). Hunting seasons (including youth hunting seasons), days, hours, and bag limits on the Refuge would be those established by the State of Nevada, except hunting at night is prohibited. No reservations would be required and hunting would be on a first come, first served basis.

Fallon NWR would not be formally opened to waterfowl, other migratory game bird, upland game, and big game hunting.



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Figure 1. Hunt Locations on Fallon and Stillwater National Wildlife Refuges

Affected Environment and Environmental Consequences:

Affected Environment

The discussion of the affected environment and the impact analysis that follows, focuses specifically on addition of antelope hunting on Stillwater NWR and opening Fallon NWR for hunting. Because none of the alternatives would physically alter the landscape of the refuge and because the number of new hunters that would use these Refuges is very low (53 at Fallon NWR and 1 at Stillwater NWR), the following resources were not evaluated in this EA: Hydrology; Water Quality and Contaminants; Geology and Soils; Air Quality; Hazardous Materials; Social and Economic Environment. There are no threatened or endangered species or wilderness areas on either refuge.

For more information regarding the affected environment, please see Chapter 4, section 4.4 of the Refuges' Comprehensive Conservation Plan, which is incorporated by reference and can be found here: [Final Comprehensive Conservation Plan and Environmental Impact Statement for Stillwater National Wildlife Refuge Complex](#).

Environmental Consequences of the Action

This section analyzes the environmental consequences of the action on each affected resource, including direct and indirect effects. This EA only includes the written analyses of the environmental consequences on a resource when the impacts on that resource could be more than negligible and therefore considered an "affected resource". Any resources that will not be more than negligibly impacted by the action have been dismissed from further analyses.

Impact Types:

- *Direct effects* are those which are caused by the action and occur at the same time and place.
- *Indirect effects* are those which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.
- *Cumulative impacts* result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-federal) or person undertakes such other actions.

In 2002, the Service completed a final CCP-EIS for the Stillwater National Wildlife Refuge Complex which is incorporated by reference. Within the Refuge Complex, hunting was an ongoing use. As part of the CCP-EIS, the Service prepared a detailed literature review of human activity impacts on Refuge Complex resources (see Appendix L in the Final CCP-EIS).

Affected Wildlife and Anticipated Impacts of the Alternatives

While a wide variety of wildlife is found on Stillwater and Fallon NWRs, this section focuses on species that would be hunted under the Proposed Action.

Waterfowl

Waterfowl using the Refuge Complex wetland habitats are part of continental populations which may fluctuate widely given conditions in other regions of the country. Peak populations of migratory waterfowl are generally recorded in the fall.

Waterfowl occupy wetland habitats during all times of the year except when the area completely freezes over for extended periods. All marsh habitats are used depending on the seasonal requirements of a given species. Aerial surveys conducted in November 2019 estimated 300 mallards, 40 green winged teals, and 95 Canada geese on Fallon NWR (NWA 2019).

The estimated breeding duck population in Nevada in 2019 was 119,653, which was a 31.6 percent increase from the 2018 estimate (Olsen 2019). The average estimated breeding duck population for Nevada from 1990-2019 was 35,529 birds. Dabblers generally comprise more than half of each year's breeding population estimate (Olsen 2019).

Alternative A – Proposed Action

Estimated hunter numbers on Fallon NWR: (24 total) ducks – 10; geese – 10; swans – 2; moorhen – 1; coots 1

Estimated take: ducks – 20; geese – 2; swans – 1; moorhen – 1; coots – 2

On Fallon NWR, waterfowl hunting opportunities would depend heavily on the annual environmental conditions. During normal and dry water years, local springs that feed a small wetland area on the Refuge may provide enough water to support minimal numbers of shorebirds, wading birds, and waterfowl. Because water conditions and the areal extent and quality of aquatic habitats on the Refuge vary greatly from year to year, the Refuge would not provide adequate habitat to maintain an annual waterfowl hunt season. The Carson Delta provides less than 100 acres of wetland habitat during the fall and winter except on rare occasions. During flood event years, water may create expansive open water habitat over the playa of the Carson Sink and provide waterfowl hunting opportunities on the Refuge. The Service estimates that the number of individual waterfowl species killed through hunting on Fallon NWR, would likely be quite low, due to the intermittent opportunities for waterfowl hunting and the remote nature of the Refuge. The Service anticipates that 24 hunters would harvest approximately 20 ducks, 2 geese, 1 swan, 1 moorhen, and 2 coots annually on Fallon NWR.

Indirect Impacts

Indirect impacts to waterfowl and other hunted and non-hunted species are generally related to disturbance. In addition to its direct, lethal effects, activities related to hunting would be expected to cause wildlife disturbance (activities include vehicle operation, including access and parking; camping; walking; use of pointing and retrieving dogs; and noise, including that caused by gunfire). Many wild animals are wary and flush when approached too closely. Human disturbance has differential effects on wildlife and is dependent upon many variables, including the species involved and its age; the time of year; the breeding cycle stage (if applicable); the activity in which the animals are engaged (e.g., foraging versus nesting); prey density and nutritional requirements for feeding wildlife; flock size for birds (large flocks may be more easily disturbed); whether the species is hunted; the surrounding environment; whether the disturbing activity involves vehicles; the type, size, intensity, speed, noise, nature, and frequency of the disturbing activity (e.g., dogs versus humans or approaching birds by walking versus in a motorized vehicle); and the approach angle or directness of approach to an animal (Blanc et al., 2006; Goss-Custard and Verboven, 1993; Holmes et al., 2005; Hammitt and Cole, 1998; Kirby et al., 1993; Knight and Cole, 1995a; Knight and Cole, 1995b; Lafferty, 2001a; Lafferty, 2001b; Rodgers, 1991; Rodgers and Schwikert, 2002; Rodgers and Smith, 1997; Smit and Visser, 1993).

Disturbance and flushing of birds, or even raising their alert levels (which usually occurs at a greater distance than that for flushing), creates stress and require animals to alter their normal behavior and expend energy that otherwise would be invested in essential life history activities such as foraging, migration, predator avoidance, mating, nesting, and brood-rearing. It can cause them to stop feeding; cause abandonment of nests and young; allow predators access to nests/young, reduce parental attention to young, and otherwise impact survival of individual animals, including birds, eggs, nestlings, broods, young, and juveniles (Burger and Gochfeld, 1991; Haysmith and Hunt, 1995; Lafferty, 2001b). Breeding birds are especially sensitive to human disturbance (Hammitt and Cole, 1998; Trulio, 2005). A study of visitors to a colony of kittiwakes (*Rissa tridactyla*) and guillemots (*Uria aalge*) revealed that nesting success was influenced by the distance observers were from the birds (positively correlated) and the number of observers involved (negatively correlated) (Beale and Monaghan, 2004). The effects of disturbance on individual animals are likely additive.

Two factors minimize wildlife disturbance from hunting. First, hunting occurs primarily during the fall and winter, seasons of the year when disturbance effects are less damaging to wildlife populations (compared with the spring breeding season). Second, although there is no designated sanctuary on Fallon NWR, that will not prevent migratory birds and other hunted species from moving to areas that are not being hunted on Fallon NWR and the nearby Stillwater NWR. Located 18 miles northeast of the town of Fallon, Nevada, the access road is fairly primitive and continues only a short distance into the Refuge after which there are two dirt tracks. Roads on the Refuge are passable only when dry. There are no designated hunting areas, blinds, camping sites, restrooms, drinking water, trashcans, trails, picnic areas, or other public use facilities on the Refuge. The extremely limited access to Fallon NWR means that most of the Refuge can be considered sanctuary without precluding hunters from a specific location. In a year when there is sufficient water on Fallon NWR for a waterfowl hunt, the Refuge is completely inaccessible to wheeled vehicles. There are no boat launches or other amenities. Refuge staff estimate that an extremely determined hunter could hunt maybe 10 percent of the refuge (Lunderstadt, 2019).

Alternative B – No Action

On Fallon NWR, there would be no take of waterfowl. Stillwater NWR would remain open to waterfowl hunting in accordance with state and federal regulations. On Stillwater NWR, sanctuary habitat would be maintained south of Division Road. Both refuges are open to the public, so there would continue to be temporary disturbance to wildlife from other wildlife dependent recreation.

Snipe

The common snipe is a wading shore bird found in wet grassy areas of freshwater marshes, ponds, flooded meadows, fields and occasionally, salt marshes, where they use their long bills to pick worms and insects out of the soil. Snipe are shy birds that spend most of their time on the ground foraging for worms and insects. They feed mostly at dawn and dusk. Their brown and white coloration makes it easy for them to blend in with their natural environment. (Wildlife Land Trust 2019)

The common snipe breeds from Alaska to Newfoundland south to the mid-United States. It winters north from northern South America to British Columbia, the northern Gulf states and Virginia. It can be found year round in Nevada. The common snipe usually stays hidden in the grass, but if it is startled it will burst out from its cover and fly in a zig-zag pattern to evade predators.

Alternative A – Proposed Action

Estimated hunter numbers at Fallon NWR: 1

Estimated harvest: 1 snipe

Snipe hunting would be permitted daily during the State's season, which in 2019 extended from October 19th through January 31st. Hunting pressure at Fallon would be light with an estimated 1 hunter harvesting 1 snipe annually. Indirect impacts related to wildlife disturbance would be low because only 1 hunter is estimated to hunt snipe on Fallon NWR over the statewide season for this species. Hunting pressure and success are limited by the remoteness of Fallon NWR, difficult access (dirt roads or lack of roads), and rough, uneven terrain.

Alternative B – No Action

On Fallon NWR, there would be no take of snipe. Hunting would continue on Stillwater NWR in accordance with state and federal regulations. There are hunting opportunities for snipe on Stillwater NWR within the 54,063 acres that are open to hunting. On Stillwater NWR, sanctuary habitat would be maintained south of Division Road. Both refuges are open to the public, so there would continue to be temporary disturbance to wildlife from other wildlife dependent recreation.

Mourning Dove

The mourning dove is one of the most widely distributed and abundant birds in North America (Droege and Sauer 1990). It can be found in a wide range of habitats, from urban areas to desert scrub. It is also the most important U.S. game bird in terms of numbers harvested. A 1991 survey indicated that the mourning dove provided about 9.5 million days of hunting recreation for 1.9 million people (USFWS and U.S. Bureau of Census 1993). The breeding range of the mourning dove extends from the southern portions of the Canadian Provinces throughout the continental United States into Mexico, the islands near Florida and Cuba, and scattered areas in Central America (Aldrich 1993). Although some mourning doves are nonmigratory, most migrate south to winter in the U.S. from northern California to Connecticut, south throughout most of Mexico and Central America to western Panama.

Alternative A – Proposed Action

Estimated hunter numbers at Fallon NWR: 1

Estimated harvest: 5 mourning doves

Dove hunting would be permitted daily during the State's season, which in 2019 extended from September 1st through October 30th. Hunting pressure at Fallon would be light with an estimated 1 hunter harvesting 5 mourning doves annually. Indirect impacts related to wildlife disturbance would be low because only 1 hunter is estimated to hunt mourning doves on Fallon NWR over the statewide season for this species.

Alternative B – No Action

On Fallon NWR, there would be no take of mourning doves. Hunting would continue on Stillwater NWR in accordance with state and federal regulations. There are hunting opportunities for mourning doves on Stillwater NWR within the 54,063 acres that are open to hunting. On Stillwater NWR, sanctuary habitat would be maintained south of Division Road. Both refuges are open to the public, so there would continue to be temporary disturbance to wildlife from other wildlife dependent recreation.

Upland Game

The California quail and a variety of rabbits are the upland game species that are most likely to be found on Fallon NWR. California quail are found in chaparral, sagebrush, oak woodland, and foothill forests in California and the northwest. They spend most of their time on the ground, walking and scratching in search of food. In morning and evening they forage beneath shrubs or on open ground near cover (Cornell 2019).

The two rabbit species most likely to be hunted on Fallon NWR are the mountain cottontail and the black-tailed jackrabbit. The NDOW regulates the take of the cottontail rabbit, but not of the black-tailed jackrabbits.

The cottontail rabbit occurs in a wide variety of habitats, including open upland habitats, sagebrush and other dry desert like grasslands and shrub lands, riparian areas and pinyon-juniper forests. They may occur in the same areas as black-tailed jackrabbits. The NDOW manages the cottontail rabbit as an upland game mammal, with a designated hunting season. Natural predators include coyotes, foxes, bobcats, badgers, weasels, red-tailed hawks, golden eagle, great horned owls, and large bullsnakes and rattlesnakes.

The black-tailed jackrabbit is the most widely distributed within Nevada. The black-tailed jackrabbit is common in Nevada's desert and foothill landscapes. Jackrabbits live in the extreme environments of the desert and chaparral, where temperatures are hot during the day and cold at night, and there isn't a lot of rain. They can be found on brush lands, prairies, pasturelands, and meadows. They prefer to live in open areas where they can see predators coming. Hawks, coyotes, and badgers are among the predators that regularly hunt black-tailed jackrabbits. Nevada has a high black-tailed jackrabbit population and the animal has historically been unprotected in the state. (NDOW 2020)

No established, repeatable surveys are conducted for any of the rabbit species so it is difficult to know, with any level of certainty, their abundance or distribution. The relatively mild 2017-18 winter coupled with increased spring precipitation received in May should enhance productivity for many of Nevada's rabbit species. However, there are some areas of the state that did not receive these favorable conditions and the rabbit population in those areas may continue to lag for a period of time. Desert cottontails breed from around February through the summer months and can mate at a relatively young age (approximately 3 months old), producing 2-4 litters a year with anywhere between one to 6 young. Thus, when conditions are favorable, cottontails can respond fairly rapidly and increases in population size can be relatively sudden.

Alternative A – Proposed Action

Estimated hunter numbers at Fallon NWR: (total hunters – 13) black-tailed jackrabbits – 3; mountain cottontails – 5; California quail - 5

Estimated harvest: black-tailed jackrabbits – 5; mountain cottontails – 3; California quail – 5

Upland game hunting on Fallon NWR would contribute to the overall harvest of these species, although within the limits set by NDOW. Given the location of Fallon NWR, the Service anticipates that harvest of upland game species is likely to be low. The Service estimates that 13 new hunters could use this area, resulting in the harvest of 5 black-tailed jackrabbits, 3 mountain cottontail rabbits, and 5 California quail. Indirect impacts related to wildlife disturbance would be low because only 13 hunters are estimated to hunt upland game on Fallon NWR over the statewide season for these species, which for California quail extends from early October through early February, and for cottontail rabbits extends from mid-October through the end of February.

Alternative B – No Action

On Fallon NWR, there would be no take of upland game species. Hunting for upland game would continue on Stillwater NWR in accordance with state and federal regulations within the 54,063 acres that are open to hunting. On Stillwater NWR, sanctuary habitat would be maintained south of Division Road. Both refuges are open to the public, so there would continue to be temporary disturbance to wildlife from other wildlife dependent recreation.

Wild Turkey

Wild turkey are not native to Nevada. Wild turkeys were first introduced to Nevada in 1960, but the program was not successful until the late 1980s when NDOW began releasing the Rio Grande subspecies of wild turkey. Nevada's two species of turkeys include Merriam's and Rio Grande, which can be found in areas throughout the entire state.

Alternative A – Proposed Action

Estimated hunter numbers at Fallon NWR: 0

Estimated harvest: 0

Although wild turkey are an introduced species in Nevada, harvest of this species is regulated by the NDOW. Currently there is no open state season at Fallon NWR and hunters would not be allowed to hunt wild turkey on Fallon NWR until the state opens a season here. It is likely that the number of wild turkey harvested when the state opens a wild turkey hunt here would be low.

Alternative B – No Action

On Fallon NWR, there would be no take of wild turkeys. Hunting for wild turkeys would continue on Stillwater NWR in accordance with state and federal regulations within the 54,063 acres that are open to hunting. On Stillwater NWR, sanctuary habitat would be maintained south of Division Road. Both refuges are open to the public, so there would continue to be temporary disturbance to wildlife from other wildlife dependent recreation.

Big Game

Stillwater and Fallon NWRs' hunt areas are within NDOW's Hunt Unit 181. Churchill County and two other counties are within NDOW's larger Management Area 18.

Mule Deer

The mule deer is a native of North American and is the primary big game species in Nevada. Mule deer are the most numerous, most widespread, and most recognizable of Nevada's wild ungulates. Mule deer move between various zones from the forest edges at higher elevations to the desert floor, depending on the season. Generally, they summer at higher elevations and winter at lower elevation, following the snowline. Mule deer occupy almost all types of habitat within their range, yet seem to prefer arid, open areas and rocky hillsides. Areas with bitterbrush and sagebrush provide common habitat. The biggest threat to mule deer is loss of habitat due to drought, fire, habitat fragmentation, lower quality habitat, and other factors. Drought causes malnutrition and lower reproduction throughout deer range. NDOW consistently surveys deer populations throughout the state and makes harvest recommendations to the Nevada Wildlife Commission for the yearly seasons and regulations.

The 2017 post-season aerial survey resulted in about 25,685 mule deer classified statewide compared to 31,770 in 2016. Statewide fawn production was slightly lower during 2017 with a ratio of 45 fawns to 100 does counted during post-season surveys (compared to a ratio of 48 fawns to 100 does during 2016). The 2018 spring deer surveys classified 22,760 mule deer, with a ratio of 35 fawns to 100 adults statewide, which is equal to the long-term average. The statewide observed buck ratio was 33 bucks to 100 does for 2017. Nevada uses a ratio of 30 bucks to 100 does as a statewide management objective for standard hunts, while up to 8 alternative Hunt Units are managed for a ratio of 35 bucks to 100 does and a higher percentage of 4 points or greater available for harvest.

Nevada's mule deer populations has been stable the past several years. The 2017 winter was mild with many mule deer occupying the upper elevations and contributing to overall low winter mortality. The 2017 hunter data indicates that 34 percent of harvested bucks were 4-point or greater with the 10 year average being 36 percent 4-point bucks or greater. The 4-point or greater data is slightly down, but is close to the 10 year average of 38 percent. The 2018 and 2019 population estimates are around 92,000 mule deer (NDOW 2018, WAFWA 2019).

On Stillwater Refuge, staff have observed that there appears to be less big game hunting as only 3 big game hunt visits were recorded in 2016 and none were recorded between 2017-2019 (USFWS 2019).

Alternative A – Proposed Action

Estimated hunter numbers at Fallon NWR: 1

Estimated harvest: 1 mule deer

Fallon NWR would be opened to hunting mule deer. This action could result in the take of 1 mule deer. Indirect impacts related to disturbance would be low since there is likely to be just one hunter engaging in this activity.

Alternative B – No Action

On Fallon NWR, there would be no take of mule deer. Hunting for mule deer would continue on Stillwater NWR in accordance with state and federal regulations within the 54,063 acres that are open to hunting. On Stillwater NWR, sanctuary habitat would be maintained south of Division Road. Both refuges are open to the public, so there would continue to be temporary disturbance to wildlife from other wildlife dependent recreation.

Antelope

Antelope are found primarily in the valleys between mountain ranges in northern and central Nevada. Wildlife managers have helped extend their range in Nevada through numerous transplants and water developments. Antelope prefer gentle rolling to flat, wide-open topography. Low sagebrush and northern desert shrubs are the preferred vegetation types. Areas such as these with low understory allow antelope to see great distances and permit the animals to move quickly to avoid predators. Over 150 different species of grasses, forbs, and browse plants are eaten by antelope, which allows them to occupy a variety of habitat types. Succulent plants and sprouts are preferred. Some of the main components of their diet includes sagebrush, antelope bitterbrush, saltbush, rabbitbrush, cheatgrass, Indian rice grass, crested wheat grass, lambsquarter, and shadscale.

In 2017, NDOW biologists classified about 11,800 antelope during composition surveys with an observed buck and fawn ratio of 47 bucks:100 does:37 fawns. These surveys were conducted in the fall and early winter months. The NDOW uses a management criteria of about 20-30 bucks to 100 does (for bucks 2 years old and older) when making quota recommendations for the following hunt year. The 2018 statewide population estimate for antelope is 30,000.

NDOW reports that in hunt units 181-184, ground surveys conducted during the fall of 2017 indicated there were 427 antelope classified as 86 bucks, 217 does, and 124 fawns yielding sex and age ratios of 40 bucks:100 does:57 fawns. 2017 was the third year in a row where consistently higher fawn ratios were observed, allowing for positive growth trends. Hunter success for the general rifle hunt was 85 percent, well above the statewide average of 76 percent.

Alternative A – Proposed Action

Estimated hunter numbers: Fallon – 1, Stillwater – 1

Estimated harvest: Fallon – antelope – 1; Stillwater – antelope – 1

Both Fallon and Stillwater Refuges would be opened to hunting antelope. While this action could result in the take of 2 antelopes, hunters must have tags issued by NDOW to harvest this species. Adding an antelope hunt at Stillwater NWR may draw new hunters, but hunting pressure for big game on Stillwater NWR is light and is also likely to be light on Fallon NWR (1 additional hunter estimated at Stillwater NWR and 1 new hunter at Fallon NWR).

Adding antelope hunting opportunities at Stillwater NWR may result in additional short-term disturbance to wildlife over a slightly larger area than under Alternative B because big game hunting may occur in different areas than waterfowl and other migratory bird hunting. Adding antelope hunting may also increase the number of big game hunters on the refuge, if antelope and deer hunting results in more hunting participants and/or visits than deer hunting alone. During big game season, hunters are not allowed to enter the waterfowl sanctuary. However, the

Service estimates that just one additional hunter would participate, so disturbance to non-hunted wildlife would be minimal. The effect of antelope hunting on large concentrations of wintering waterfowl is anticipated to be negligible because antelope hunting opportunities would be expected to be better on the uplands of the refuges.

Alternative B – No Action

On Fallon and Stillwater Refuges there would be no take of antelope. Hunting for other species would continue on Stillwater NWR in accordance with state and federal regulations within the 54,063 acres that are open to hunting. On Stillwater NWR, sanctuary habitat would be maintained south of Division Road. Both refuges are open to the public, so there would continue to be temporary disturbance to wildlife from other wildlife dependent recreation.

Other Hunted Species

There are also hunting opportunities for coyote, badger, beaver, and squirrel on Fallon NWR. From the low desert valleys to the alpine ridges, coyotes are found in about any type of habitat where they can find food and a place to hide. While they seem to show some preference for brush covered rolling hills and flats, coyotes have perhaps the most varied habitat of any animal in Nevada. Coyotes flourish throughout the entire state of Nevada, including in urban areas such as Las Vegas and Reno. Nevada has a very healthy population of coyotes statewide. Though many efforts have been made to reduce its numbers and even to eradicate it, the resilient coyote remains plentiful. In Nevada coyotes are classified as “unprotected.” A hunting license is not required to hunt unprotected mammals.

Badgers and the American beaver may also be found on Fallon NWR. As reported by Lindzey (1994), badgers prefer open country with light to moderate cover, such as pastures and rangelands inhabited by burrowing rodents. They are opportunists, preying on ground-nesting birds and their eggs, mammals, reptiles, amphibians, and insects. They are especially adapted for burrowing, with strong front legs equipped with long, well-developed claws. Their digging capability is used to pursue and capture ground-dwelling prey. The American beaver is found where their food supply is plentiful: along rivers and in small streams, lakes, marshes where there is year round water flow. Beavers are herbivores and prefer to eat leaves, bark, twigs, roots, and aquatic plants.

The squirrel species most likely to be hunted on Fallon NWR is the Townsend ground squirrel. This species is found throughout Nevada near desert shrub areas. They commonly live and feed around sagebrush, sagebrush steppe, wheatgrass-needlegrass shrub steppe, bitterbrush, and the edges of some riparian areas (NDOW 2020). Smith and Johnson (1985) reported a mean home range of 1,357 square meters for this species.

Alternative A – Proposed Action

Estimated hunter numbers at Fallon NWR: (12 total) coyote – 5; beaver – 1; badger – 1; squirrel – 5

Estimated harvest: 5 coyotes – 5; beaver – 1; badger – 1; squirrels – 10

Direct impacts to species such as coyotes, beavers, badgers and squirrels on Fallon NWR is likely to be minimal given the number of hunters likely to use this area (estimated at 12 hunters). The NDOW compiles harvest data for coyotes, beavers, and badgers each year by summarizing

and expanding postseason questionnaire information obtained from licensed trappers. Harvest data for the 2018-2019 season shows that in Churchill County trappers harvested 33 beavers, 120 coyotes, and 0 badgers and in Washoe County trappers harvested 30 beavers, 337 coyotes, and 3 badgers (NDOW 2019). NDOW does not track harvest data for squirrels and does not track harvest of these species from hunting (only trapping).

The Service estimates that 12 hunters could take up to 5 coyotes, 1 beaver, 1, badger, and 10 squirrels at Fallon NWR. While this would slightly increase the take of these species, the overall number of these species taken on Fallon would be relatively low. Trapping is not allowed on either Fallon or Stillwater Refuges. Indirect impacts related to disturbance would be low since there is likely to be just 12 hunters engaging in this activity.

Alternative B – No Action

On Fallon NWR, there would be no take of other hunted species. Hunting would continue on Stillwater NWR in accordance with state and federal regulations within the 54,063 acres that are open to hunting. On Stillwater NWR, sanctuary habitat would be maintained south of Division Road. Both refuges are open to the public, so there would continue to be temporary disturbance to wildlife from other wildlife dependent recreation.

Affected Vegetation and Anticipated Impacts of the Alternatives

Stillwater and Fallon NWRs are situated at the southwestern end of the Carson Sink and entirely within the sub-basin of Pleistocene Lake Lahontan. These Refuges lack any significant topographic relief, with elevations ranging between a low of about 3,865 feet in the Carson Sink within the Fallon NWR to a high of 4,270 feet at the base of the Stillwater Range in the extreme southeastern portion of Stillwater NWR (USFWS 2002). See section 4.4.1 in the Final CCP/EIS for a detailed description of the plant communities within the Stillwater Refuge Complex. A brief summary follows.

The landscape of Stillwater and Fallon NWRs is dominated by gently rolling to flat desert shrub lands and flat alkali playas. Desert shrub plant communities on Stillwater and Fallon NWRs typically are made up of plants that can tolerate moderate to highly alkaline soils and can survive on minimal precipitation (about five inches per year).

The vegetation and habitats on Fallon NWR are desert alkali-shrub, dunes, and numerous playas and unvegetated alkali mudflat communities, which can change with the seasonal water conditions. Fallon NWR lies in the high-desert (at approximately 3,800 feet elevation) and is part of an interior basin terminal sink for the Carson River. Major ecological zones include the Carson River delta (including alkaline playas), desert upland shrub, and sand dunes. Because of its remote location, and the limited availability of and lack of control over surface water, wetland habitats on Fallon NWR are not actively managed and solely dependent on flood water events and excess drainwater. Remnant, natural ecological processes are the primary drivers creating habitat for native fish, wildlife, and plants. The Delta (alkali playa) of the Refuge is flooded only periodically during these flood events so their biotic potential varies between and within these events.

Upland vegetation depends upon subtle variations in topography and salinity. The salt desert scrub habitat consists of various saltbush species found in saline basins on valley floors and around playas (USFWS 2002). Common plant species within the desert upland shrub community include rabbitbrush (*Chrysothamnus* spp.), desert blite (*Suaeda torreyana*), hopsage (*Grayia spinosa*), white burrobush (*Ambrosia dumosa*), catclaw horsebush (*Tetradymia stenolepis*), fourwing saltbush (*Atriplex canescens*), shadscale saltbush (*Atriplex confertifolia*), Torrey's saltbush (*Atriplex torreyi*), spotted dalea (*Psoralea polydenia*), Indian ricegrass (*Oryzopsis hymenoides*), saltgrass (*Distichlis spicata*), desert mallow (*Sphaeralcea ambigua*), budsage (*Artemisia spinescens*), winterfat (*Krascheninnikovia lanata*), and greasewood (*Sarcobatus vermiculatus*).

Sand dunes on Fallon NWR are sparsely vegetated by Indian ricegrass (*Oryzopsis hymenoides*) and greasewood (*Sarcobatus vermiculatus*).

The Stillwater Refuge lies in the high-desert (at approximately 4,000 feet elevation) and is part of an interior basin terminal sink for the Carson River. Major habitat types include wetlands and desert upland shrub. The Refuge also contains dunes and alkaline playas. Under natural (historic) conditions, the areal extent of and species mix in these habitats would have varied broadly among years depending on drought and flooding, the volume of inflows, and salinity, among other factors. These factors continue to influence the location and extent of these habitats, but upstream water storage and withdrawals for agricultural and urban uses have greatly limited the degree to which these factors currently affect Refuge habitats. Inflow to the Lahontan Valley varies greatly among years affecting, among other things, the acreage of wetlands on the Refuge.

Common wetland plant species include foxtail barley (*Hordeum jubatum*), broadleaf cattail (*Typha latifolia*), southern cattail (*Typha domingensis*), western chara (*Chara* sp.), common horsetail (*Equisetum arvense*), mixed meadow grasses, muhly grass (*Muhlenbergia asperifolia*), saltgrass (*Distichlis spicata*), wigeongrass (*Ruppia maritima*), common reed (*Phragmites australis*), Baltic rush (*Juncus balticus*), alkali bulrush (*Bolboschoenus robustus*), hardstem bulrush (*Schoenoplectus acutus*), creeping spikerush (*Eleocharis palustris*), Parish's spikerush (*Eleocharis parishii*), Great Basin wildrye (*Elymus cinereus*), duckweed (*Lemnoideae* spp.), horned pondweed (*Zannichellia palustris*), sago pondweed (*Stuckenia pectinata*), and western pondweed (*Potamogeton filiformis*).

Common plant species within the desert upland shrub community includes rubber rabbitbrush (*Asteraceae* spp.), iodinebush (*Allenrolfea occidentalis*), quailbush (*Atriplex lentiformis*), fourwing saltbush (*Atriplex canescens*), Indian ricegrass (*Oryzopsis hymenoides*), saltgrass (*Distichlis spicata*), pickleweed (*Salicornia* sp.), Torrey's seepweed (*Suaeda moquinii*), and big greasewood (*Sarcobatus vermiculatus*).

Alternative A – Proposed Action

Impacts to vegetation and habitats on Stillwater NWR from the addition of an antelope hunt would be minimal. Hunting is conducted on foot by individuals or small groups. This direct impact of foot travel by hunters on vegetation and habitat is often different from that of other wildlife-dependent recreation users because hunters tend to travel in dispersed patterns over wide

areas, minimizing the chances of negatively impacting vegetation. On Stillwater NWR, 54,464 acres in the North Unit would be open to antelope hunting in addition to the ongoing hunt program. Hunting is not allowed in the sanctuary area, south of Division Road (~40 percent of the refuge), which also reduces impacts to vegetation and associated habitats from hunting activities.

On Fallon NWR, all 17,955 acres of the refuge are proposed to be open to hunting during the State-regulated seasons. Because Fallon NWR is open to visitors throughout the year, the effects of human activity on vegetation would occur throughout the year, including during hunting seasons. However, because access to this refuge is limited and there are no developed visitor facilities on site, the number of users (including up to 53 new hunters) is expected to remain low resulting in negligible effects to vegetation and habitats.

Alternative B – No Action

Human activity impacts on vegetation and habitats under this alternative would be similar to Alternative A in that Stillwater NWR is open to visitor use, including hunters, throughout the year. While Fallon NWR would not be opened to hunting under this alternative, the numbers of hunters that would use Fallon is expected to be quite low so there is unlikely to be much difference in impacts to vegetation between the two alternatives.

Visitor Use and Anticipated Impacts of the Alternatives

Stillwater and Fallon NWRs are open to the public year-round. Stillwater NWR offers a variety of recreational opportunities and experiences. The nature trails at Stillwater NWR are the facilities most used by the public. Based on unpublished annual performance plan refuge data, the Service reported that on Stillwater NWR, from 2017 through 2019, there were no documented hunt visits for other migratory bird (e.g., dove), upland game, and big game. Waterfowl hunters comprise the largest user group on the refuge with an average of 600 individuals on the refuge each season (107 days) from 2009 through 2012. On Stillwater NWR, waterfowl hunt visits were estimated at 12 in 2016 (due to 2nd year of drought), 677 for 2017, 675 for 2018, and 17,362 for 2019. From 2015 through 2019, total hunting visits were estimated at 79 for 2015, 25 for 2016 (the second year of a drought, resulting in limited hunting opportunities), 677 for 2017, 675 for 2018 and 17,362 for 2019. The Service expects that the estimated visitor use levels in 2019 will not increase substantially through implementation of the proposed action.

Fallon NWR is a remote refuge and staff is not on site to document each visitor. The Service estimated that from 2015 through 2017, there were no hunt visits. For 2018, an estimated 10 waterfowl hunt visits were documented.

On Stillwater NWR, station trends for visits for recreation other than hunting are summarized as follows. Visitor center or contact station visits were estimated at 200 in 2015, 150 in 2016, none for 2017 and 2018, and 50 in 2019. Total estimated wildlife observation visits were 2,401 in 2015, 3,809 in 2016, 3,626 in 2017, 0 in 2018, and 3,701 in 2019. Total estimated other recreational participants (for other than hunting) were 25 in 2016 (the second year of a drought, too dry for other wildlife-dependent recreation), 20 in 2017, and 0 in 2018 and 2019. On

Stillwater NWR, there was a dramatic decline in education participants from 2,981 in FY16 to 313 in FY17. This was due to the loss of visitor services staff; there was no staff available to hold all the environmental education programs held in the past.

The Service has not documented any general recreational visits to Fallon NWR. Annual post-hunt meetings are organized with the hunting public to gain insight on the Hunting Program at Stillwater NWR.

Alternative A – Proposed Action

Waterfowl hunting has a long history on Stillwater NWR. The Service has seen few conflicts between hunters and other wildlife-dependent recreation at Stillwater NWR. Visitation at Stillwater NWR for activities other than hunting have been very low in recent years (25 in 2016, 20 in 2017, and 0 in 2018 and 2019) and the Service expects that visitation will remain about the same in the future. Because Fallon NWR is a remote refuge, access is limited, there are no public use facilities and none are being proposed, the Service expects that visitation for recreation other than hunting will remain about the same as in recent years (less than 0-20 participants).

The Refuges are open to other public uses during the hunting season. The portion of Stillwater NWR located north of Division Road would be open to visitor services during the waterfowl hunting season. Motorized boat access would be allowed on approximately 60 percent of the area open to waterfowl hunting. Water will be adaptively managed to optimize fall habitat for waterfowl and the Service expects to support about the same waterfowl use of the entire wetland complex as in recent years (to both the North Unit hunt area and the South Unit sanctuary/no hunting area). Therefore, opportunities for wildlife-dependent recreation other than hunting is expected to be about the same as in recent years

Although no conflicts have been documented in the past with mule deer hunting, adding antelope hunting at Stillwater NWR may increase the potential to disturb Refuge visitors engaged in other wildlife-dependent recreational uses. While some Refuge visitors could find hunting objectionable, the low numbers of hunters that use the Refuges and the 23,500 acres of Stillwater NWR that are open to the public but closed to hunting, means that visitors who object to hunting could still enjoy a large portion of the Refuge and its wildlife, while avoiding interaction with hunters and hunting activities.

Because refuge visits for wildlife-dependent recreation other than hunting has been low (0-25 from 2016 to 2019), the risk is low for conflicts between hunters and refuge visitors engaging in other recreational activities. The Service expects that visits to Stillwater and Fallon NWRs by visitors other than hunters will remain about the same as in recent years.

Alternative B – No Action

Under Alternative B, there would be no changes to visitor services at either of the refuges. The Service would continue to provide hunting, wildlife observation, wildlife photography, environmental education and interpretation activities on Stillwater NWR, as staffing availability permits. There are no formal environmental education and interpretation activities on Fallon NWR. Opportunities for wildlife-dependent recreation other than hunting are expected to be the

same as with Alternative A. Hunting effects to other wildlife-dependent recreation and visitor use on either of the Refuges would remain substantially the same as they are now, negligible. The risk is low for conflicts between hunters and refuge visitors engaging in other recreational activities.

Cultural Resources and Anticipated Impacts of the Alternatives

Stillwater NWR contains some of the richest cultural resources in the Great Basin. Archaeological evidence shows that human beings have lived in and around Stillwater Marsh for at least 12,000 years. Most of the recorded cultural resources at Stillwater are archaeological sites. The historic descendants of this legacy are the Toedokado or Cattail-eater Northern Paiute of Stillwater Marsh and vicinity. The Toedokado occupied an area bounded by the Humboldt Range to the north, Alpine Mountains to the east, Desert Range and south end of the Sand Springs Mountains to the south, and the Truckee and Virginia Ranges and the lower Carson River to the West. The modern descendants of the Toedokado are represented by the Fallon Paiute-Shoshone Tribe whose reservation borders are near Stillwater NWR to the east and Stillwater Marsh to the north. Cultural resources in the Stillwater area remind us that people have been part of the American wildlife landscape for at least 12,000 years (USFWS 2002).

The Service maintains the following documents regarding cultural resources at Stillwater NWR:

- Plan of Action for Cultural Resource Management at Stillwater Wildlife Management Area, Fagan and Raymond, 1987.
- Programmatic Agreement for Cultural Resources at Stillwater Wildlife Management Area. 1988
- Memorandum of Understanding on Native American human skeletal remains and associated artifacts among the Naval Air Station, Fallon, Fallon Paiute-Shoshone Tribes, Nevada State Historic Preservation Officer, U.S. Fish and Wildlife Service, and Nevada State Museum, 1991.
- Memorandum of Understanding on Human Remains between the USFWS and Nevada State Historic Preservation Office and the Fallon Paiute-Shoshone Tribes.

Alternative A – Proposed Action

Native Americans (the Toidikadi people, a tribe of the Northern Paiutes) have lived year-round in the Lahontan Valley for thousands of years. They gathered plants, fished, and hunted mammals, waterfowl, and other animals. There is evidence they manufactured decoys much like those used by waterfowl hunters today. As a result, the Refuges are rich in cultural resources, including an abundance of human burials. Natural events, like floods, and wind and sheet wash erosion, can expose remains of their culture, including human burials (Raymond, 1997). Sport hunting has occurred on the Stillwater Refuge for many years. Hunters and other Refuge visitors are prohibited from collecting or otherwise disturbing cultural resources, including human remains. Therefore, opening Fallon Refuge and adding an antelope hunt at Stillwater Refuge is not expected to impact cultural resources. Cultural resources conservation would remain a basic component of land management at the Stillwater NWR Complex. The Service, in consultation with the Fallon Paiute-Shoshone Tribe, would continue to manage cultural resources so they are preserved, and the strong tradition of archaeological and ethnographic research would continue (USFWS 2002).

Alternative B – No Action

The effects of Alternative B would be the same as Alternative A.

Refuge Management and Operations and Anticipated Impacts

The hunting program is designed to be administered with minimal refuge resources. The cost of administering the hunting program is part of the Refuge's annual budget.

Alternative A: Proposed Action

For Stillwater NWR, the annual cost for the hunt program is estimated at \$12,800. Adding an antelope hunt at Stillwater would not increase the cost of the hunt program. Refuge management and operational costs to open Fallon NWR to hunting are estimated at \$200 annually.

Alternative B: No Action

Under the No Action alternative, the Service would save \$200 annually by not opening the Fallon NWR to hunting.

Environmental Justice and Anticipated Impacts

The mission of the Service is working with others to conserve, protect, and enhance fish and wildlife and their habitats for the continuing benefit of the American people. The developing environmental justice strategy of the Service extends this mission by seeking to ensure that all segments of the human population have equal access to America's fish and wildlife resources, as well as equal access to information that will enable them to participate meaningfully in activities and policy shaping.

Alternative A: Proposed Action

The Service has not identified any potential high and adverse environmental or human health impacts from this proposed action or any of the alternatives. The Service has identified no minority or low income communities within the impact area.

Alternative B: No Action

The effects of Alternative B would be the same as Alternative A.

Cumulative Impact Analysis:

Cumulative impacts are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions” (40 CFR 1508.7).

More information on the national cumulative impacts of the Service's hunting and fishing program on the National Wildlife Refuge System are available at: *Regulations.gov*

Hunting

Waterfowl

Waterfowl: Flyway Analysis

Although the population estimates in the midwinter waterfowl survey for the Pacific Flyway largely fluctuate, the most recent population estimates (2015) are stable when compared to long-term averages. With respect to geese, populations are abundant and increasing at the continental scale and within the Pacific Flyway (USFWS 2013). In particular, goose populations in the Pacific Flyway have increased over the past 40 years but have remained stable since 2017 (Olsen 2019).

According to the 2019 Flyway Data Book (Olsen 2019), the 2018 annual duck harvest for the Pacific Flyway is 2.89 million birds, compared to an average duck harvest (from 1999 to 2018 at the Pacific Flyway) of 2.86 million ducks. Total duck harvest in the Pacific Flyway has increased by 1.1 percent compared to the long-term harvest average (1999-2018). However, compared to the 2017 harvest, total duck harvest has increased by 6.3 percent. The total goose harvest for the Pacific Flyway in 2018 was 486,274 geese, which, compared to the average goose harvest (from 1999 to 2018 at the Pacific Flyway) of 429,753 geese (Olsen 2019), has increased by 13.9 percent.

Waterfowl: Regional Analysis

Fall surveys flown by the Nevada Waterfowl Association (2019) show that the major species of ducks at Stillwater Refuge, are northern pintails, mallard, gadwalls, green-winged teal, northern shovelers, American widgeon, canvasbacks, ruddy ducks, and redheads. Canada geese, snow geese, tundra swans and the occasional trumpeter swan, migrate through the Refuge Complex as well. Peak populations of most of these species occur during the fall, with several exceptions including ruddy ducks (spring), geese, and swans (winter) (USFWS 2002, Nevada Waterfowl Association 2019). In November 2019, aerial surveys (Nevada Waterfowl Association) estimated the total number of waterfowl at 345,655 birds. This survey shows the number of total ducks on Stillwater NWR at 122,160, total geese at 1,438, swans at 2,696, and coots at 33,080. These same surveys estimated 340 ducks on Fallon NWR, and 95 geese. In 2019, the duck breeding population index for Nevada was estimated at 119,653.

Annual harvest estimates for Nevada indicate that in 2018, a total of 46,271 ducks and 2,574 geese were harvested by 4,284 (based on the Harvest Information Program) waterfowl hunters (Olsen 2019). Site specific harvest information is not available for either Fallon or Stillwater NWRs.

Snipe: Flyway and Regional Analysis

The number of snipe harvested statewide is low. In 2017, 200 snipe were harvested and in 2018, no snipe were harvested. The average long-term average (between 1999 and 2019) in Nevada is 225 birds (Olsen 2019). The Service's preliminary estimates of snipe harvest and hunter activity in Nevada showed a decrease from 200 (+/-183 percent) in 2017 to 0 in 2018. The Pacific Flyway snipe harvest total was estimated as 4,300+/-64 percent in 2017 and 2,900+/-65 percent in 2018 (Raftovich et al. 2019).

Mourning Dove: Flyway and Regional Analysis

Within the U.S., three areas contain breeding, migrating, and wintering mourning dove populations that are largely independent of each other (Kiel 1959). In 1960, three areas were established as separate management units: the Eastern (EMU), Central (CMU), and Western (WMU). The Western Management Unit is comprised of 7 western states including Nevada and surrounding states (Seamans 2017).

The two main tools used to manage mourning doves are an annual breeding population survey (known as the Mourning Dove Call-count Survey; Dolton 1993a, b) and harvest surveys. The Call-count Survey provides an annual index to population size as well as data for determining long-term trends in dove populations. State harvest surveys and the National Migratory Bird Harvest Information Program, begun in 1992, estimate dove harvest. Information on population status and trends, and harvest records are used by State wildlife administrators in setting annual hunting regulations.

There were 279 million mourning doves in the U.S. immediately prior to the 2016 hunting season (Seamans 2017). Estimates of absolute abundance are available since 2003 and indicate that there were approximately 249 million doves in the U.S. as of September 1, 2018 (Seamans 2019). Abundance (in millions of birds) varied among management units in 2018, with WMU 55.8 million birds (standard error=3.7).

Mourning dove populations in the WMU have declined a significant 2.2 percent annually during the 30 years from 1966 to 1995, as determined with annual call-count data from WMU states (Dolton 1995). California (3.5 percent annually) and Nevada (3.9 percent annually) experienced the greatest declines, whereas lesser declines have occurred in all other WMU states (Dolton 1995). Harvest and number of hunters have declined along with population indices in the WMU. Causes of these declines are unknown; however it is unlikely that hunting was solely responsible for the decline (USFWS 2003).

The Service's preliminary estimates of mourning dove harvest in Nevada showed an increase from 16,000 (+/-32 percent) in 2017 to 21,400 (+/-56 percent) in 2018 (Raftovich et al. 2019). The Western Unit white-winged dove harvest total was estimated at 109,400 +/-18 percent in 2017 and 110,800 +/-21 percent in 2018 (Seamans 2019).

Anticipated Cumulative Impacts – Migratory Birds

The Service believes that migratory bird hunting on the Fallon NWR will not add significantly to the cumulative impacts of other hunting on local, regional, or Pacific Flyway migratory bird populations because the percentage likely to be taken on Fallon NWR, though possibly additive to existing hunting takes, would be a small fraction of the estimated populations detailed above. For example the estimated take of waterfowl on Fallon NWR is 26 birds which is about .05 percent of the annual take (48,845 birds) in Nevada and .007 percent of the fall population estimate for Nevada. The overall statewide harvest of snipe is low with 200 harvested in 2017 and 0 in 2018. We estimate that 1 additional snipe would be harvested on Fallon NWR, which

would be .5 percent of the take in a good year. Opening Fallon to hunting mourning doves would result in the take of 5 doves, which represents .02 percent of the 2018 harvest.

In addition, overall populations will continue to be monitored and future harvests will be adjusted as needed under the existing flyways and state regulatory processes. Wildlife populations on the Refuge are able to sustain hunting and also support other wildlife dependent priority uses. Several points support this conclusion: 1) the proportion of the national waterfowl harvest that occurs on National Wildlife Refuges is only 6 percent (US DOI 2009); 2) there are no waterfowl populations that exist wholly and exclusively on national wildlife refuges; 3) annual hunting regulations within the United States are established at levels consistent with the current population status; and 4) Refuges cannot permit more liberal seasons than provided for in Federal frameworks.

Upland Game

Regional Analysis – California quail

The 2017-2018 California quail season extended from October 14, 2017 through February 4, 2018. In 2018, the number of California quail hunters increased by 31 percent from the previous season. However, hunter numbers were 43 percent below the 1—year average of 2,977. Hunters harvested an estimated 11,889 California quail during the 2017-18 season, which represented a 35 percent increase over the previous season’s estimated harvest. However, the 2017-18 harvest was 48 percent lower than the 10-year average of 22,823 birds taken and well short of the long-term (1960-2016) average of 41,040. As with many other upland game species, harvest is closely correlated with hunter participation.

California quail hunters averaged 7 birds per hunter and took 1.6 birds per day spent in the field. Both values were 7 percent below the 10-year average of 7.5 birds per hunter and 1.7 birds per day. No harvest data were collected after the 2018-2019 upland game season and no formal monitoring was conducted for this species (NDOW 2019).

After a reprieve from extended drought conditions due to the winter of 2016-17, the 2017-18 winter brought Nevada back to abnormally dry to moderate drought conditions across much of the state. From an upland game perspective; however, these conditions were somewhat tempered by an extremely wet May where precipitation came in the form of rain. The Northern Great Basin cumulatively experienced 127 percent of average precipitation in May while the Lower Humboldt River Basin received 119 percent of average precipitation. This should have translated into some habitat improvement within major portions of California quail range in western Nevada and led to increased productivity for the species.

An above average March in terms of rain and snowfall combined with the rain in May, essentially rescued much of northern and west-central Nevada from more severe drought conditions in 2018. In addition, NDOW (2018b) anticipated that improved water storage in many reservoirs that serve agricultural areas such as the Lahontan Valley in Churchill County and Lovelock Valley in Pershing County should provide California quail populations with additional cover, food, and water availability. This should lead to moderate to good production for the species in 2018 and with some recovery of California quail population experienced in 2017, harvest and success should increase during the 2018-19 season.

Regional Analysis – Rabbits

In 2018, NDOW estimated that cottontail rabbit harvest declined almost 21 percent compared to the 2016-2017 harvest, while rabbit hunter numbers dipped 12 percent during that same time. In the 2017-2018 season, cottontail rabbit harvest was also 56 percent below the 10-year average. Rabbit hunters averaged just 4.9 rabbits per season, which was 10 percent below the previous season's take while just 7 percent lower than the 10-year average of 5.3 rabbits per hunter. Conversely, the number of rabbits taken per day was 3 percent greater than the prior season and 7 percent greater than the 10-year average of 1 rabbit per day (NDOW 2018b). No harvest data were collected after the 2018-2019 upland game season and no formal monitoring was conducted for the cottontail rabbits.

Anticipated Cumulative Impacts – Upland Game

Population estimates of huntable species are developed at the State level and hunting frameworks and take limits are set based on these estimates. The proposed refuge hunting rules will be the same as the hunting regulations set by the State of Nevada. Opening Fallon NWR to upland game hunting would contribute to the overall harvest of upland game in Nevada, within the limits set for the State by NDOW. The home range of these upland game species is fairly small and their populations are primarily influenced by temperature and rainfall. In addition, the Service expects a low number of upland game hunters to use Fallon NWR resulting in a low level of take of these species. These factors lead the Service to conclude that opening Fallon NWR to upland game hunting will have a negligible cumulative effect on quail and rabbit populations.

Wild Turkey

Regional Analysis

Harvest data (NDOW 2018), continue to suggest that turkey populations in Nevada are doing well. The numbers of tags increased over the last five years and additional tags were recommended for the 2019 spring season. The positive trend in harvest has continued since 2013 and with a recent translocation of Merriam's turkeys to the Toiyabe Range, hunter opportunities should mildly increase in future years.

Anticipated Cumulative Impacts – Wild Turkey

While harvest data suggests that turkey populations in Nevada are doing well, there currently is no open state season at Fallon NWR and hunters would not be allowed to hunt wild turkey on Fallon NWR until the state opens a season here. Therefore, there are currently no cumulative impacts to wild turkey.

Big Game

Regional Analysis- Mule Deer

Deer are managed on a unit basis, where a unit consists of an individual deer herd or group of similar herds. The objective of the management plan is to conserve and improve mule deer habitat and minimize factors limiting healthy mule deer population. Hunter quotas are determined using annual deer herd survey data and deer population modeling techniques. For example, according to NDOW's 2017-2018 Big Game Status (NDOW 2018a), no mule deer

surveys were conducted in Area 18 during the reporting 2017-2018 period. NDOW expected that with favorable winter [2018-2019] precipitation, the 2016 fire in Management Area 18 would be beneficial to the mule deer herd. The Area 18 mule deer herd appears relatively stable. Winter 2017 was mild with many mule deer occupying the upper elevations and contributing to overall low winter mortality. The 2017 hunter data indicated that 34 percent of harvested bucks were 4-point or greater with the 10-year average being 36 percent 4-points or greater. The 4-point or greater data is slightly down, but is close to the 10-year average of 38 percent.

According to NDOW (2018) Nevada hunters purchased 16,069 mule deer tags in 2017, which was down from the 18,111 sold in 2016. The decrease in tag sales was reflective of a decrease in the 2017 quotas approved by the Nevada Board of Wildlife Commission. Total harvest for 2017 was about 7,300 mule deer including bucks and does. Hunt return questionnaires indicated a statewide success rate of 49 percent for all deer hunters, which was higher than the reported 46 percent during 2016. Total buck harvest was 6,234 and of those bucks harvested about 43 percent had 4 (or greater) antler points on one side.

Regional Analysis – Antelope

The initial *Pronghorn Antelope Species Management Plan* was prepared in 1983 by NDOW, and served as a plan for the future management of this species in Nevada. In 2003, NDOW prepared a revision of the 1983 plan and published the revision as a biological bulletin. Advances in the understanding of the species along with contemporary management applications served as the impetus for the revision (NDOW 2003). The objective of antelope management in Nevada is to protect, maintain or increase the resource for the enjoyment and use by the people now and in the future. To meet this objective, NDOW annually conducts population sampling and collects harvest data to determine the status and trend of the state's antelope population. For example, during the fall of 2017, ground surveys were conducted for antelope in Management Area 18. There were 427 antelope counted; of which 86 were bucks, yielding sex and age ratios of 40 bucks:100 does:57 fawns. This was the third year in a row where consistently higher fawn ratios have been observed. The mild 2017-2018 winter may have contributed to lower winter mortality for the Area 18 antelope herd. Hunter success for the general rifle hunt was 85 percent and is well above the statewide average of 76 percent. NDOW expected increased moisture during the spring of 2018 to result in good range conditions for antelope, allowing for positive growth trends.

The 2017 antelope season provided excellent hunting opportunity and success rates for Nevada hunters (NDOW 2018). There were 4,463 antelope tags available to hunters in the 2017 draw, of which 1,341 were for horns-shorter-than-ear hunts. Over 31,500 people applied for antelope tags in the 2017 main big game draw, not including specialty tag draws such as the PIW and Silver State. Over 2,000 adult bucks and 1,302 antelope from the horns-shorter-than-ear hunt were harvested in 2017. Overall, hunter success rate was about 69 percent for all antelope hunts during 2017. The percentage of antelope bucks with horn lengths of 15 inches or greater was about 28 percent statewide for 2017, which is slightly below the 10 year average of 30 percent.

Anticipated Cumulative Impacts – Big Game

Opening Fallon NWR to big game hunting and Stillwater NWR to an antelope hunt would have a minimal contribution to cumulative impacts to these species. At Fallon NWR, the Service

estimates that 1 additional mule deer would be taken annually. This would be a very small (.01 percent) contribution to the annual statewide take of 7,300 mule deer. Opening Fallon and Stillwater Refuges to antelope hunting would not have any cumulative impacts to antelope because hunters must have tags issued by the NDOW to harvest this species and there are many more applicants for tags than available tags. In 2017, over 31,500 hunters applied for one of 4,463 available antelope tags available. Stillwater and Fallon NWRs would be available options for hunters who successfully obtain an antelope tag. In 2018, the NDOW quota for antelope in hunt units 181-184 (both resident and nonresident hunts) was 53 (NDOW 2018c).

Other Hunted Species

Fallon NWR would also be opened to hunting coyote, badger, beaver, and Townsend's ground squirrel. A hunting license is not required to hunt either coyotes or ground squirrels which are unprotected mammals. Coyotes flourish throughout the entire state of Nevada, including in urban areas such as Las Vegas and Reno. Populations of Townsend's ground squirrel, like other small game animals, is primarily influenced by temperature and rainfall.

Statewide harvest information for coyote, badger, and beaver is available only through post-Season questionnaires of trappers. The State tracks harvest of these species through trapping, but not through hunting. The statewide harvest numbers for the 2017-18 season reported 4,429 coyotes, 152 badgers, and 208 beavers were harvested through trapping (NDOW 2018).

Anticipated Cumulative Impacts – Other Hunted Species

The Service believes that opening Fallon NWR to hunting coyote, badger, beaver, and Townsend's ground squirrel would have a minimal contribution to cumulative impacts to these species. As noted above, coyotes flourish throughout the state of Nevada in both urban and rural areas and the population driver of the Townsend's ground squirrel is primarily temperature and rainfall. The Service estimates that opening Fallon NWR to hunting would result in the take of a small number of these species – 17 total and the majority of that take would consist of coyote and Townsend's ground squirrel. This small amount of additional take would have a minimal contribution to cumulative impacts on these species.

Other Wildlife-Dependent Recreation (i.e. road and trail development and use)

Outdoor recreation is popular in Nevada. The vast majority of Nevada's land (85 percent) is in the public estate, managed by the federal government, the majority of which is managed by the Bureau of Land Management. The high percentage of public lands combined with Nevada's natural resources provide a wide range of outdoor recreation opportunities including wildlife-dependent recreation.

Anticipated Cumulative Impacts

Fallon NWR does not contain any developed infrastructure. No infrastructure, on the Refuge or off the Refuge, will be constructed to accommodate the proposed hunt opening of Fallon NWR or the addition of antelope hunting on Stillwater. Therefore, there will be no cumulative impacts to infrastructure at the local, regional or national level.

Development and Population Increase

The high percentage of public lands in Nevada tends to limit development to established cities and communities, such as Las Vegas and the Reno-Sparks area. A relatively small percentage of Nevada's population lives in rural areas. Nevada is generally sparsely populated. There are only eight states in the country that are less densely populated. The current population for Nevada in 2020 is estimated at 3.14 million which represents a sizeable increase from its 2.7 million population in the 2010 Census. Nevada currently has one of the strongest growth rates in the country, reflecting a 7.05 percent population increase between 2010 and 2015 (Nevada Population 2020). Conservation planning on state, federal, and local levels has tempered the ecological effects of growth through conservation and mitigation requirements, such as developing conservation strategies for Nevada's twenty two key habitats and their associated wildlife (Nevada Wildlife Action Plan 2012).

Anticipated Cumulative Impacts

The Service believes that opening Fallon NWR to hunting and adding an antelope hunt at Stillwater NWR for an addition 77 use days will not add significantly to the cumulative adverse impacts of past, present, and future development on hunted and non-hunted wildlife populations at relevant scales. This is because the magnitude of direct and indirect impacts of hunting would be a small fraction of the past, present, and future impacts of development in Nevada. In addition, the hunt program would be reviewed annually and revised if necessary to ensure that it does not contribute further to the cumulative impacts of population growth and development on migratory and resident wildlife and their habitats.

Agricultural Land Uses

Agriculture is one of Nevada's most important industries, contributing significantly to the economies of rural communities and the State as a whole. Nevada agriculture is directed primarily toward range livestock production. With 85 percent of Nevada owned by the federal government, most of Nevada's ranchers graze their livestock, at least in part, on public land. Most of the federal land in Nevada that is used for agriculture is overseen by the Bureau of Land Management and the U.S. Forest Service. (Nevada Legislative Counsel Bureau 2016). Although organized agricultural activities are not a significant broad-scale stressor in Nevada, where they occur, land-use actions such as agricultural and pasture conversion can influence wildlife through loss of native vegetation communities and species diversity, changes in vegetative structure characteristics, and increased disturbance to wildlife (NDOW 2013).

Anticipated Cumulative Impacts

The Service believes that opening Fallon NWR to hunting, and adding an antelope hunt at Stillwater NWR for an addition of 77 use days will not add significantly to the cumulative adverse impacts of past, present, and future agricultural development on hunted and non-hunted wildlife populations at relevant scales. This is because the magnitude of direct and indirect impacts of hunting would be a small fraction of the past, present, and future impacts of agricultural development in Nevada. The hunt program would be reviewed annually and revised if necessary to ensure that it does not contribute further to the cumulative impacts of agricultural land use on migratory waterfowl and other wildlife.

Use of Lead Ammunition

The use of lead ammunition is allowed by Nevada for big game hunting. On the Refuge, lead ammunition is also permitted for big game hunting. Research has indicated that lead can be present in gut piles left by big game hunters after field dressing. Raptors that feed on gut piles may ingest the lead, leading to poisoning.

Anticipated Cumulative Impacts

The numbers of big game hunters and resulting harvest of big game on Fallon and Stillwater NWRs is estimated to be quite low (1 mule deer and 2 antelope). The Refuge represents a small portion of hunting that would allow the use of lead ammunition. Therefore, the continued allowance of lead shot for hunting big game species has a negligible contribution to the cumulative impacts of lead in the environment.

Climate Change

Warming, whether it results from anthropogenic or natural causes, is expected to affect a variety of natural processes and associated resources. However, the complexity of ecological systems means that there is a tremendous amount of uncertainty about the actual effects of climate change. In particular, the localized effects of climate change are still a matter of much debate. The combination of increased frequency and severity of drought in the basin and increased frequency of wildfire could dramatically reduce the amount and quality of waterfowl habitat in the basin. As a result waterfowl would be forced into increasingly smaller areas of available habitat. Concentrating birds into smaller and smaller areas also has the potential to more readily allow disease to spread within overwintering waterfowl populations resulting in an increased potential for bird mortality.

Anticipated Cumulative Impacts

The refuge would continue to use an adaptive management approach for its hunt program, reviewing the hunt program annually in coordination with NDOW and revising annually (if necessary), the Service's hunt program can be adjusted to ensure that it does not contribute further to the cumulative impacts of climate change on hunted species.

Mitigation Measures and Conditions:

No additional mitigation measures are proposed other than those incorporated into the Proposed Action.

Monitoring:

Population monitoring will be reviewed annually with the NDOW to ensure that harvest from hunting is not unacceptably impacting the targeted populations. Hunting opportunities will be modified accordingly.

Summary of Analysis:

The purpose of this EA is to briefly provide sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

Alternative A – Proposed Action Alternative

As described above, the Proposed Action would have minor effects to biological resources and no effect on other recreational uses on Stillwater or Fallon Refuges. Hunting would occur in accordance with NDOW hunting regulations. The Proposed Action would not affect other wildlife-dependent recreation because wildlife observation and photography can continue to occur during hunting seasons. This alternative helps meet the purpose and needs of the Service as described above because it provides additional wildlife-dependent recreation opportunities on both Fallon and Stillwater Refuges. The Proposed Action offers increased opportunities for public hunting and fulfills the Service’s mandate under the NWRS Improvement Act. The Service has determined that the hunt plan is compatible with the purposes of Stillwater NWR and Fallon NWR and the mission of the NWRS, and meets the Service’s priorities and mandates as outlined by the NWRSAA (16 U.S.C. 668dd(a)(4)). The proposed action is consistent with and supports Refuges’ CCP (USFWS 2002).

Alternative B – No Action Alternative

As described above, under the No Action Alternative the Service would not open Stillwater NWR to antelope hunting opportunities and would not open Fallon NWR to hunting. No changes would be made to wildlife-dependent recreation that currently occurs on the Refuges.

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State Coordination:

Between 2000 and 2001, the Service met with a working group sponsored by NDOW to discuss concerns expressed during the public comment period, including hunting-related topics. Working group members included representatives from NDOW, Nevada Board of Wildlife Commissioners, Churchill County, the Service, and several interest groups. The hunting program at Stillwater and Fallon NWRs are based primarily on public review of the CCP and coordination with the working group. The Service will continue to discuss hunting opportunities with NDOW and work to ensure safe and enjoyable recreational hunting opportunities on the refuges. In February 2020, the Service contacted NDOW representatives to inform them of the proposed rulemaking.

Tribal Consultation:

The Service, the Nevada State Historic Preservation Office, the Advisory Council on Historic Preservation, and the Fallon Paiute-Shoshone Tribe have formal written agreements concerning the management of cultural resources at Stillwater NWR. Procedures for identification, recovery, storage, study, and reburial of human remains from Stillwater have been codified in the 1988 Memorandum of Understanding between the Service and the Fallon Paiute-Shoshone Tribes. In February 2020, the Service contacted tribal representatives to inform them of the proposed rulemaking.

Public Outreach:

The draft Environmental Assessment will be available to the public and interested agencies for a 60-day public review consistent with the publication of the draft 2020-2021 Refuge Specific Regulations for Hunting and Fishing on [Regulations.gov](https://www.regulations.gov). Comments received on the draft document will be addressed as appropriate.

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