

# Compatibility Determination

## Title:

Stillwater National Wildlife Refuge, Hunting – Big Game and other species

## Refuge:

Stillwater National Wildlife Refuge

## Refuge Use Category:

Hunting

## Refuge Use Type(s):

Hunting (big game, other migratory birds, upland game)

## Establishing and Acquisition Authorities and Refuge Purpose(s):

Truckee-Carson-Pyramid Lake Water Rights Settlement Act of 1990 (16 U.S.C. 668dd; §206(b), Title II, P.L. 101-618).

Subsection 206(b)(2) of Public Law 101-618 expanded Stillwater National Wildlife Refuge Boundary to its present approved boundary, and it changed the purposes of the refuge, directing that Stillwater Refuge “shall be managed by the Secretary through the United States Fish and Wildlife Service for the purposes of:“(A) maintaining and restoring natural biological diversity within the refuge;

(B) providing for the conservation and management of fish and wildlife and their habitats within the refuge;

(C) fulfilling the international treaty obligations of the United States with respect to fish and wildlife; and

(D) providing opportunities for scientific research, environmental education, and fish and wildlife oriented recreation” (Truckee-Carson-Pyramid Lake Water Rights Settlement Act of 1990).”

## NWRS Mission:

The mission of the 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 it a priority Public Use:

Yes.

## What is the Use:

The use is sport hunting for big game, other migratory birds, upland game, small game, and other species, including mule deer, pronghorn, mourning dove, California quail, ring-necked pheasant, mountain cottontail, wild turkey, coyote, and black-tailed jackrabbit on designated areas of Stillwater National Wildlife Refuge (Refuge or NWR). Nevada classifies mule deer and pronghorn as big game, mourning doves as migratory birds, California quail and ring-necked pheasant as upland game birds, mountain cottontail as small game, wild turkey in its own class, and coyote and black-tailed jackrabbit as unprotected species. Sport hunting means the pursuit and killing of game animals with a weapon, including a falcon, primarily for the purpose(s) of recreation and/or food.

Hunting is an ongoing use of the Refuge that was determined to be a compatible use in 2003 when we issued the Final Comprehensive Conservation Plan and Environmental Impact Statement (CCP/EIS) (USFWS 2003). In accordance with Service Policy 602 FW 2.11H, we are now re-evaluating this use and documenting changes we propose to make to the current hunt program.

## Where would the Use be conducted:

On Stillwater National Wildlife Refuge (Refuge or NWR), 54,063 acres in the North Unit (North of Division Road) would continue to be opened to hunting during State-designated hunting seasons. In addition, the Taber and Dutchbill units would be open to hunting at the conclusion of their life use estates. These two units would be used for Youth, Veteran, Handicapped, and other special hunting opportunities. The remainder of the Refuge is closed to hunting and serves as a sanctuary area for wildlife during hunting seasons. Areas where hunting is not allowed include:

- 1) All lands south of Division Road and on Service-owned properties outside the Refuge boundary.
- 2) Other areas as posted.

## When would the Use be conducted:

Hunting is allowed on the Refuge 7 days per week within the State-established season for individual species.

## How would the Use be conducted:

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 and veteran hunting seasons), days, hours, and bag limits on the Refuge would be those established by the State of Nevada. No reservations would be required and hunting would be on a first come, first served basis.

**Big Game - Mule Deer and Pronghorn:** Mule deer hunting would be allowed by permits issued through the Nevada Division of Wildlife's annual big game permit drawing. Only shotguns, muzzle loading rifles, or bow and arrow are allowed for big game.

**Other Migratory Birds** – Mourning Dove hunting would be allowed on all lands open to hunting.

**Upland Game** – includes species such as California quail, ring-necked pheasant, turkey, and rabbit.

**Unprotected Species** – black-tailed jack rabbits, and coyote.

Hunters must use only a shotgun and federally approved non-lead shot for migratory game birds and upland game hunting. No pistols may be used for hunting on the refuge. Hunters must use only shotguns, muzzle loading rifles, or bow and arrow for big game. Hunters may use hunting dogs engaged in authorized hunting activities and under the immediate control of a licensed hunter. Overnight stays are allowed at designated sites within the Refuge boundary. Overnight stays are limited to four consecutive nights at one location, not to exceed twelve consecutive nights on the refuge.

### Why would the Use be conducted:

Hunting is a wildlife-dependent general public use and is to be given special consideration in refuge planning and management. When determined compatible on a refuge-specific basis, a wildlife-dependent use becomes a priority public use for that refuge and is to be facilitated, that is, strongly encouraged (National Wildlife Refuge System Administration Act of 1966).

### Resources:

Existing Management Capability Existing Funds - The U.S. Fish and Wildlife Service (Service) currently has adequate budget and staff to support the annual costs associated with operation of this hunting program. Annual costs are estimated at \$2,560.

### Impacts:

Hunting would have direct, lethal effects on the target game species. The number of animals killed would depend on hunting pressure (i.e., the number of hunters and days of effort) and hunter success rates. Hunters could also cause death or injury to a non-target species. While data are not available for the number of individual animals killed as a result of these hunts that number is estimated to be quite low. In 2015 and 2016 the Refuge reported 2 and 3 big game hunt visits respectively. No big game hunt visits were reported in 2017 and 2018. For other migratory bird and upland game hunting, five visits were reported in both 2015 and 2016 and no visits were reported in 2017 and 2018. Together, these hunting visits represent less than 1 percent of the total number of visitors to the Refuge in those years (USFWS 2019 - Multi-year RAPP). Refuge staff estimate that fewer than 1 mule deer; a handful of coyotes; a handful of black-tailed jackrabbits; few, if any, mountain cottontails; few, if any, mourning doves; a handful of California quail; and unknown numbers (likely very small) of ring-necked pheasant and wild turkey are killed on the Refuge by hunters each year. Accordingly, hunting pressure for big game, other migratory birds, upland game, small game, turkey, and unprotected species is very low.

It is unknown how many animals would be injured, but able to carry on; would be injured, but unable to perform critical life history activities like breeding; or would die following a hunting injury. Wounding rates can vary among game species, the types of weapons used, and the experience of the hunter. Studies suggest that the number of animals shot but not retrieved while hunting (sometimes referred to as the crippling loss rate) ranges broadly. Among deer hunters using archery equipment, wounding rates range from 14 percent to 50percent (Pedersen et al., 2008). Use of tracking dogs can significantly reduce wounding loss to deer during archery hunting (Morton et al., 1995). Studies reveal crippling loss rates for mourning doves ranging from 18 percent to 50percent (Haas, 1977; Schulz et al., 2013), for pheasants from 3.3 percent to 46 percent (Applegate and Scott, 2005), and for turkeys from 0percent to 38 percent (Utah Division of Wildlife Resources, 2000; Williams et al., 1978). If one assumed 100 percent fatality among the animals injured but not retrieved by hunters, the total number of game animals taken

by hunters on the Refuge in recent years would remain small. Hunting on the Refuge would not be expected to have any effects on populations of game species because the numbers described here are so low and because the State of Nevada regulates hunting to maintain hunting opportunities and sustain healthy wildlife populations.

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; noise, including that caused by gunfire; etcetera). 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; 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.

Camping is another source of potential effects on the Refuge's environment. Camping can cause soil compaction, reduction in the surface organic (humus) layer, and erosion; and vegetation trampling, other damage, and removal, and reduction in natural regeneration (Hammitt and Cole, 1998). These effects vary based on the frequency of use, and the durability of soils and vegetation at campsites (Cole, 1995).

There are currently two sites on the Refuge that are designated for camping. Restrooms and trash cans are located adjacent to each of these sites. Restricting overnight stays to these two sites and enforcing associated rules (e.g., no campfires, wood cutting, or wood collecting; or overnight camping for longer than four consecutive nights in one location) minimizes camping-related impacts on the Refuge

Hunting occurs during the fall and winter, seasons of the year when disturbance effects are less damaging to wildlife populations (compared with the spring breeding season). Birds and other target game species would be able to escape the lethal and disturbance effects of hunting and related activities by flying or otherwise traveling to the 28,400-acre sanctuary area in the southern portion of the Refuge.

Along with continued management of quality habitat in the sanctuary area, the several stipulations associated with this use would greatly reduce the likelihood and magnitude of potential effects of this use on the Refuge's native fish, wildlife, plants, and their habitats.

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 even manufactured decoys much like those used by waterfowl hunters today. As a result, the Refuge is 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 Refuge for many years. Hunters and other Refuge visitors are prohibited from collecting or otherwise disturbing cultural resources, including human remains. Therefore, continued hunting of big game, upland game, and other species is not expected to impact cultural resources.

The Refuge is open to other public uses during the hunting season. While some Refuge visitors could find hunting objectionable, the low number of hunters that use this Refuge and the 24,800 acres of the Refuge that are open to the public but closed to hunting, means that visitors who object to hunting could still enjoy a sizable portion of the Refuge and its wildlife, while avoiding interaction with hunters and hunting activity.

## Determination:

### Determination Status:

Compatible

### Mandatory Re-evaluation Date:

2035

### Public Review and Comment:

This draft compatibility determination will be available for public review and comment along with the Environmental Assessment and the Hunt Plan. We received several comment letters on the Environmental Assessment. Responses to those comments are in Appendix 1 to the Final Environmental Assessment. We have concluded that hunting as described in this compatibility determination is a compatible use.

## Stipulations:

- Hunters are required to comply with Refuge System-related and other applicable laws, regulations, and policies, including Prohibited Acts listed in the Code of Federal Regulations (50 C.F.R. §27), Public Entry Regulations (50 C.F.R. §26), Migratory Bird Hunting Regulations (50 C.F.R. §20) and Refuge-Specific Regulations for Hunting and Fishing (50 C.F.R. §32).
- Hunters must have all applicable licenses, permits, stamps, and other authorizations and permissions to hunt for the species or species group(s) being pursued.
- Hunting would be allowed only in designated areas of the Refuge. This would include all lands and waters that lie north of Division Road and the northern boundary of the Canvasback Gun Club (which is private). Hunting in all other areas south of Division Road and on Service-owned

properties outside the Refuge boundary would be prohibited. The remainder of the Refuge would serve as a sanctuary area for waterfowl and other wildlife, and remain closed to hunting.

### Justification:

By its nature, hunting would have direct, lethal effects on individual animals. However, hunting on the Refuge would not be expected to have any effects on populations of wildlife because the State of Nevada uses adaptive management principles to regulate hunting, maintain hunting opportunities, and sustain healthy wildlife populations. Additionally, hunting pressure for the types of species discussed in this compatibility determination is low and the number of animals taken (including crippling losses) is also low. The fact that populations of these species remain strong even though sport hunting has occurred on this Refuge since its establishment is testament to the effectiveness of this overall management approach.

In light of the very low levels of hunting occurring on the Refuge, the large sanctuary area on site, and the stipulations listed above, it's not expected that hunting would materially interfere with achievement of Refuge purposes. Data generated through monitoring of these uses and their effects on wildlife would be used to assess the validity of this expectation. Monitoring would also record changes in the quantity and quality of habitats, wildlife populations, numbers and activities of hunters, and other key elements of this program. As necessary, changes would be made to this program in the future to ensure its continued quality and compatibility.

Hunting is a wildlife-dependent general public use of the Refuge System and is to be given special consideration in refuge planning and management. The Refuge System Administration Act states that the Refuge System, "...was created to conserve fish, wildlife, and plants and their habitats and this conservation mission has been facilitated by providing Americans opportunities to participate in compatible wildlife-dependent recreation, including fishing and hunting, on System lands and to better appreciate the value of and need for fish and wildlife conservation." This Act goes on to state that the Refuge System is to provide increased, compatible opportunities, "...for parents and their children to safely engage in traditional outdoor activities, such as fishing and hunting..." As a wildlife-dependent public use, hunting can also reconnect people, including youth, with the natural world and help address nature-deficit disorder (Louv, 2005). This potential would be furthered through implementation of youth hunts on the Refuge.

One of the purposes of the Refuge is to provide opportunities for fish and wildlife oriented recreation. Allowing hunting in a compatible manner would help support achievement of Refuge purposes. It's also expected that hunters would enjoy some wildlife observation and photography ancillary to their hunting efforts. These latter two uses are also wildlife-dependent general public uses that are to be given special consideration in refuge planning and management, and, as fish and wildlife oriented recreation, are also Refuge purposes.

By allowing this use to occur under the stipulations described above, it is anticipated that wildlife which could be disturbed would find sufficient food resources and resting places so their abundance and use would not be measurably lessened on the Refuge. For the reasons describe above, this use would not materially interfere with or detract from maintenance of the Refuge's biological integrity, diversity, and environmental health; fulfillment of Stillwater NWR's purposes; or the Refuge System's mission. References:

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Signature Page:

Refuge Manager: CARL LUNDERSTADT Digitally signed by CARL LUNDERSTADT Date: 2020.07.08 15:25:29 -07'00'

Approval Date: \_\_\_\_\_

Regional Chief: PRISCILLA WHEELER Digitally signed by PRISCILLA WHEELER Date: 2020.07.16 07:23:00 -07'00'

Concurrence Date: \_\_\_\_\_