Draft Compatibility Determination

Title

Compatibility Determination for Hunting at Modoc National Wildlife Refuge

Refuge Use Category

Hunting

Refuge Use Type(s)

Hunting – Waterfowl and Upland Birds

Refuge

Modoc National Wildlife Refuge

Refuge Purpose(s) and Establishing and Acquisition Authority(ies)

Modoc National Wildlife Refuge (Refuge) was established in 1961. Legal authorities include the Migratory Bird Conservation Act of 1929 (16 U.S.C. 715d); Refuge Recreation Act of 1962 (16 U.S.C. 460k-460k-4), as amended; and the Fish and Wildlife Act of 1956 (16 U.S.C. 742).

Modoc Refuge purposes include:

> " ... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." 16 U.S.C. 715d (Migratory Bird Conservation Act of 1929).
>
> " ... suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species ... " 16 U.S.C. 460k-l " ... the Secretary ... may accept and use ... real ... property. Such acceptance may be accomplished under the terms and conditions of restrictive covenants imposed by donors ... " 16 U.S.C. 460k-2 (Refuge Recreation Act of 1962 (16 U.S.C. 460k-460k-4), as amended). " ... for the development, advancement, management, conservation, and protection of fish and wildlife resources ... " 16 U.S.C. 742f(a)(4)
>
> " ... for the benefit of the United States Fish and Wildlife Service, in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude ... " 16 U.S.C. 742f(b)(I) (Fish and Wildlife Act of 1956).

National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System, otherwise known as Refuge

System, is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (Pub. L. 105-57; 111 Stat. 1252).

Description of Use

Is this an existing use?

Yes, hunting is an existing compatible use on Modoc National Wildlife Refuge. This compatibility determination reviews and replaces the 2009 compatibility determination for hunting at Modoc National Wildlife Refuge.

What is the use?

Hunting is identified in the National Wildlife Refuge System Improvement Act of 1997 (16 U.S.C. 668dd-ee) as a priority use for refuges when it is compatible with the refuge purposes and mission of the Refuge System. As a result, the Service is proposing to continue hunting of waterfowl, coots, common moorhens, and snipe on approximately 2,330 acres of Modoc National Wildlife Refuge. An annual junior pheasant hunt on the Refuge will also be continued. The hunting program will provide high quality, safe, and cost-effective hunting opportunities, and will be carried out consistent with State regulations. The guiding principles of the Refuge System's hunting programs (Service Manual 605 FW 2) are to

- manage wildlife populations consistent with Refuge System-specific management plans approved after 1997 and, to the extent practicable, State fish and wildlife conservation plans;
- promote visitor understanding of and increase visitor appreciation for America's natural resources;
- provide opportunities for quality recreational and educational experiences consistent with criteria describing quality found in 605 FW 1.6;
- encourage participation in this tradition deeply rooted in America's natural heritage and conservation history; and
- minimize conflicts with visitors participating in other compatible wildlife-dependent recreational activities.

The Hunting Plan (U.S. Fish and Wildlife Service 2009b) was developed to provide safe hunting opportunities, while minimizing conflicts with other priority wildlife-dependent recreational uses. The Refuge's hunting program will comply with the Code of Federal Regulations Title 50, 32.1 and be managed in accordance with Service Manual 605 FW2. Hunting will be permitted in accordance with State regulations and seasons to ensure that it will not interfere with the conservation of fish and wildlife and their habitats. Therefore, the hunting of migratory birds and upland game birds

on the Refuge is in compliance with State regulations and seasons; the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (16 U.S.C. 668dd-ee); and the Refuge Recreation Act of 1962 (16 U.S.C. 460k).

Is the use a priority public use?

Yes

Where would the use be conducted?

The Proposed Action (Alternative C) analyzed in the Draft Comprehensive Conservation Plan (CCP) and Environmental Assessment (EA) (U.S. Fish and Wildlife Service 2009a) and the Hunting Plan (U.S. Fish and Wildlife Service 2009b), which are incorporated by reference, contain maps and Refuge descriptions where hunting will be allowed. Hunting is permitted on designated portions of the Refuge (Figure 1 in Service 2009a) totaling approximately 2,330 acres. The remainder of the Refuge, 4,790 acres, is closed to hunting and serves as a sanctuary area for waterfowl and other wildlife during hunting seasons.

When would the use be conducted?

Hunting will occur in accordance with State regulations and seasons. The area is open for waterfowl hunting on Tuesdays, Thursdays, and Saturdays during the regular season. Typically, the regular waterfowl season opens in October and closes the following January. The Refuge conducts a youth waterfowl hunt usually two weeks prior to opening weekend.

How would the use be conducted?

Hunters must enter the area from one of three designated parking areas and are required to fill out a self-registration permit prior to hunting. The kill record portion of the permit must be carried at all times and filled out and returned prior to leaving the hunt area. All equipment is carried in and out each day. Currently, three spaced blinds are available, all of which are universally accessible. One blind floats to allow hunters to find an optimal position within a designated area. The remainder of the hunt area is open for free-roam hunting.

The Grandma tract (200 acres) will be opened to hunting in four assigned ponds and one spaced blind (Figures 1 and 10 in Service 2009a). A party of up to four hunters will be allowed per site. Hunters must park in the numbered parking space corresponding to the blind or assigned pond they are going to hunt.

Table 1 summarizes the hunting season dates and bag limit for 2022-2023.

For both the youth waterfowl hunt weekend and the regular opening weekend a reservation is required. Hunters are selected through a drawing conducted by Refuge

Table 1. Modoc Refuges, hunting season bag limit summary for 2022-2023

Species	Dates	Daily Bag Limits
Waterfowl- Ducks	October 1 – January 11	7/day; which may include: 7 mallards (no more than 2 females), 1 pintail, 2 canvasback, 2 redheads; Possession limit: triple the daily bag.
Waterfowl- Scaup	Oct 1 – Nov 27 & Dec 15 – Jan 11	2/day; Possession limit: triple the daily bag.
Waterfowl- Geese	Canada Geese: Oct 1 – Jan 8 White and white-fronted geese: Oct 1 – Nov 27 & Dec 31 – Jan 13	30/day; 20 white geese, 10 dark geese (no more than 2 Large Canada geese); Possession limit: triple the daily bag limit.
American Coot and Common Moorhen	Concurrent with duck season	25/day, either all of one species or a mixture of these species; Possession limit: triple the daily bag limit.
Snipe	Oct 15 - Jan 29	8/day; Possession limit: triple the daily bag limit.
Youth Waterfowl Hunt	The Saturday 14 days before the opening of waterfowl season	Same as regular season
Youth Pheasant Hunt[1]	One Sunday in mid-to late November	3 males per day

staff. The normal quota is 136 hunters for both Saturday and Sunday. Typically, 350-400 hunters apply for opening weekend. Up to four hunters may apply on an application. Each hunting party may bring up to two junior hunters. A separate drawing is conducted for the four universally accessible hunt blinds.

Youth hunters are selected through a drawing conducted by the Refuge. The normal quota is 50 youth hunters. Typically, 75-100 hunters apply for the youth waterfowl hunt. Up to four hunters may apply on an application. Youth hunters must be accompanied by an adult non-hunter with no more than two youth hunters per adult.

There is a $3 application fee per person and successful applicants pay a $10 per person permit fee. Interagency Senior Pass, Interagency Access Pass, Golden Access, and Golden Age cardholders pay $5. There is no fee for junior hunters. After opening weekend, waterfowl hunting is conducted through a self-check-in/out system. There is no quota or fee after opening weekend. Universally accessible blinds may be

[1] Pheasant are only hunted during a youth pheasant hunt that occurs on one day during the legal season. Hunting is limited to ten youth hunters. Youth hunters must be accompanied by an adult non-hunter with no more than two youth hunters per adult.

reserved by contacting the Refuge Headquarters no later than 24 hours in advance of the hunt day. Non-reserved blinds are available on a first come first serve basis to all hunters.

The use of retrieving dogs would be permitted and encouraged in all areas open to waterfowl hunting. These dogs would be required to be under control at all times. Any hunter who allows his/her dog to disturb wildlife is not well received by other hunters who do not want waterfowl disturbed on the ponds that they are hunting. Law enforcement officers will enforce regulations requiring owners to maintain control over their dogs while on the Refuge. Although the use of dogs is not a form of wildlife-dependent recreation; they do in this case support a wildlife-dependent use.

The overall harvest success, as measured by the number of birds per hunter per day, has remained relatively constant (approximately 1.5 birds per hunter) since the hunting programs were established. An average of 1,447 hunter visits occurs annually with have an average of 1.55 birds per hunter (Table 2). Habitats included in the hunt area are croplands, wet meadows, and wetlands. The most common species harvested include Canada geese, mallards, gadwalls, greenwinged teal, and American wigeons.

Field checks by refuge law enforcement officers will be planned, conducted, and coordinated with staff and other agencies to maintain compliance with regulations and assess species and number harvested. Dogs will be required to be kept on a leash, except for hunting dogs engaged in authorized hunting activities and under the immediate control of a licensed hunter.

Why is this use being proposed or reevaluated?

Hunting is one of the six wildlife-dependent general public uses that is given special consideration in refuge planning and management. When determined to be compatible on a refuge-specific basis, a wildlife-dependent use becomes a priority public use for that refuge. The National Wildlife Refuge System Administration Act of 1966 strongly encourages refuges to facilitate priority public uses. The specifics of hunting at Modoc National Wildlife Refuge are being reevaluated because technology has changed since the last evaluation of compatibility.

Availability of Resources

Funds are currently available to operate and maintain the hunt program. Funding is acquired through the Service budget process. Table 3 below summarizes the one-time and reoccurring cost to administer the hunt program.

Table 2. Hunting Summary for Modoc NWR, 1981 – 2022.[2]

Year	# Hunters	# Ducks	Ducks per Hunter	# Geese	Geese per Hunter	Total Birds	Birds per Hunter
1981	2429	1900	0.78	515	0.21	2415	0.99
1982	3335	2850	0.85	1208	0.36	4058	1.22
1983	2249	2203	0.98	484	0.22	2687	1.19
1984	1801	1808	1.00	524	0.29	2332	1.29
1985	1800	1325	0.74	796	0.44	2121	1.18
1986	1696	1409	0.83	440	0.26	1849	1.09
1987	1379	1672	1.21	337	0.24	2009	1.46
1988	1547	1637	1.06	509	0.33	2146	1.39
1989	1477	894	0.61	330	0.22	1224	0.83
1990	1459	1050	0.72	692	0.47	1742	1.19
1991	2268	1536	0.68	821	0.36	2357	1.04
1992	1176	616	0.52	420	0.36	1036	0.88
1993	1835	1425	0.78	502	0.27	1927	1.05
1994	973	1716	1.76	289	0.30	2005	2.06
1995	1317	1859	1.41	176	0.13	2035	1.55
1996	1674	2844	1.70	362	0.22	3206	1.92
1997	1851	2533	1.37	385	0.21	2918	1.58
1998	1757	2246	1.28	339	0.19	2585	1.47
1999	1645	2535	1.54	287	0.17	2822	1.72
2000	1227	1815	1.48	246	0.20	2061	1.68
2001	1155	715	0.62	386	0.33	1101	0.95
2002	1412	1321	0.94	309	0.22	1630	1.15
2003	1475	2307	1.56	275	0.19	2582	1.75
2004	1513	2333	1.54	280	0.19	2613	1.73
2005	1446	3186	2.20	243	0.17	3429	2.37
2006	1441	2708	1.88	274	0.19	2982	2.07
2007	1201	2324	1.94	219	0.18	2543	2.12
2008	956	1487	1.56	259	0.27	1746	1.83
2009	1151	2512	2.18	217	0.19	2729	2.37
2010	1063	1830	1.72	245	0.23	2075	1.95
2011	1282	2772	2.16	296	0.23	3068	2.39
2012	1173	2699	2.30	247	0.21	2946	2.51
2013	766	1308	1.71	154	0.20	1462	1.91
2014	741	1377	1.86	207	0.28	1584	2.14
2015	689	1813	2.63	133	0.19	1946	2.82
2016	962	2438	2.53	249	0.26	2687	2.79
2017	976	2989	3.06	165	0.17	3184	3.26
2018	870	2392	2.75	137	0.16	2529	2.91
2019	1126	3328	2.96	167	0.15	3495	3.10
2020	1571	4362	2.78	242	0.15	4604	2.93
Average	1447	2052	1.55	359	0.24	2412	1.80

[2] This table does not include youth waterfowl hunt numbers

Table 3. Costs to Administer and Manage Waterfowl Hunting

Category and Itemization	One-time Cost	Recurring Annual Expenses
Construct facilities	$10,000	--
Develop signage and brochures	--	$1,000
Staff time (LE, administration and management)	--	$5,000
Maintenance	--	$3,000
Total expenses	**$10,000**	**$9,000**

Anticipated Impacts of the Use

Potential impacts of a proposed use on the refuge's purpose(s) and the Refuge System mission

In 2009, the Service evaluated the impacts of hunting on each of the Refuge purposes and found them compatible. The Service completed a detailed review of the impacts of visitor use as it relates to the disturbance of waterbirds (DeLong, A.K. 2002). The 2002 review informed the waterfowl hunting program that the Service implemented on Modoc Refuge. The waterfowl hunt program includes sanctuary habitat, and limited road closures to ensure that a sufficient amount of high-quality, preferred habitat is available for waterfowl and other birds at most times. The Service has maintained each of these provisions since 2009. A review of short and long-term impacts of waterfowl hunting on Refuge purposes follows.

Short-term impacts

Direct effects of hunting include mortality, wounding, and disturbance (De Long 2002). Hunting can alter behavior (e.g., foraging time), population structure, and distribution patterns of wildlife (Owens 1977, Raveling 1979, White-Robinson 1982, Thomas 1983, Bartelt 1987, Madsen 1985, and Cole and Knight 1990). There also appears to be an inverse relationship between the numbers of birds using an area and hunting intensity (DeLong 2002). In Connecticut, lesser scaup were observed to forage less in areas that were heavily hunted (Cronan 1957). In California, the numbers of northern pintails on Sacramento Refuge non-hunt areas increased after the first week of hunting and remained high until the season was over in early January (Heitmeyer and Raveling 1988). Following the close of hunting season, ducks generally

increased their use of the hunt area; however, use was lower than before the hunting season began. Human disturbance associated with hunting includes loud noises and rapid movements, such as those produced by shotguns and boats powered by outboard motors. This disturbance, especially when repeated over a period of time, compels waterfowl to change food habits, feed only at night, lose weight, or desert feeding areas (Madsen 1995, Wolder 1993).

These impacts can be reduced by the presence of adjacent sanctuary areas where hunting does not occur and where birds can feed and rest relatively undisturbed. Sanctuaries or non-hunt areas have been identified as the most common solution to disturbance problems caused from hunting (Havera et. aI 1992). Prolonged and extensive disturbances may cause large numbers of waterfowl to leave disturbed areas and migrate elsewhere (Madsen 1995, Paulus 1984). In Denmark, hunting disturbance effects were experimentally tested by establishing two sanctuaries (Madsen 1995). Over a 5-year period, these sanctuaries became two of the most important staging areas for coastal waterfowl. Numbers of dabbling ducks and geese increased 4 to 20-fold within the sanctuary (Madsen 1995). Thus, sanctuary and non-hunt areas are very important to minimize disturbance to waterfowl populations to ensure their continued use of the Refuge.

Intermittent hunting can be a means of minimizing disturbance, especially if rest periods in between hunting events are weeks rather than days (Fox and Madsen 1997). It is common for refuges to manage hunt programs with non-hunt days. At Sacramento Refuge, 3-16 percent of pintails were located on hunted units during non-hunt days, but were almost entirely absent in those same units on hunt days (Wolder 1993). In addition, northern pintails, American wigeons, and northern shovelers decreased time spent feeding on days when hunting occurred on public shooting areas, as compared to non-hunt days (Heitmeyer and Raveling 1988). The intermittent hunting program of three hunt days per week at Sacramento Refuge results in lower pintail densities on hunt areas during non-hunt days than non-hunt areas (Wolder 1993). However, intermittent hunting may not always greatly reduce hunting impacts.

The Service believes that there will be minimal conflicts between hunters and the other wildlife dependent recreational uses. The uses are not occurring on the same area at the same time. Conflicts between hunting and other public uses will be minimized by the following:

- Physically separate non-hunting and hunting acres to spatially divide the activities.
- Boundary and hunting area signs will be maintained to clearly define the designated hunting areas.
- Allow vehicle traffic only on designated roads and parking areas.
- Parking areas will be signed to allow only pedestrian hunter access to hunting areas. Vehicle access is allowed for pick up and drop off of disabled hunters.

• The hunting program will be managed in strict accordance with all applicable Federal laws (50 CFR Subchapter C) and to the extent practicable, consistent with applicable State laws.

• Field checks by refuge law enforcement officers and CDFG game wardens will be planned to maintain compliance with regulations.

• Information about the Refuge hunting program will be provided through signs, kiosks, brochures, and the Refuge's website (http://www.fws.gov/modoc).

• No camping will be allowed on the Refuge.

Long-term impacts

Hunting is a highly regulated activity, and generally takes place at specific times and seasons (fall and winter) when the game animals are less vulnerable, reducing the magnitude of disturbance to refuge wildlife. Managed and regulated hunting will not reduce species populations to levels where other wildlife-dependent uses will be affected.

Hunting is an appropriate wildlife management tool that can be used to manage wildlife populations. Some wildlife disturbance will occur during the hunting seasons. Proper zoning, regulations, and Refuge seasons will be designated to minimize any negative impacts to wildlife populations using the Refuge. Harvesting these species, or any other hunted species, would not result in a substantial decrease in biological diversity on the Refuge.

Wildlife populations on the Refuge are able to sustain hunting and support other wildlife dependent priority uses. To manage the populations to support hunting, the Refuge adopts harvest regulations set by the State within Federal framework guidelines.

Recreational hunting will remove individual animals, but will not negatively affect wildlife populations. To assure that populations are sustainable, the California Fish and Game Commission, in consultation with the CDFG, annually review the population censuses to establish season lengths and harvest levels. Each year the refuge staff conducts habitat management reviews of each unit on the Refuge to evaluate wildlife population levels, habitat conditions, and public use activities. The areas closed to various hunting activities do provide adequate sanctuaries for wildlife.

Public Review and Comment

The draft compatibility determination will be available for public review and comment for (insert number of days) days from (insert date) to (insert date). The public will be made aware of this opportunity to comment through the local newspaper and the Refuge's social media. A hard copy of this document will be posted in the Visitor Center at 5364 County Road 115, Alturas, CA 96101. It will be made available electronically on the refuge

website, http://www.fws.gov/refuge/modoc. Concerns expressed during the public comment period will be addressed in the final Compatibility Determination.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

- Refuge Specific Regulations (text in italics represent new and/or change regulation).
    - Hunting of Migratory Game Birds: We allow the hunting of geese, ducks, coots, moorhens, and snipe on designated areas of the refuge in accordance to State regulations subject to the following conditions:
        1. On the opening weekend of the hunting season, hunters must possess and carry a refuge permit issued through a random drawing to hunters with advanced reservations only. Waterfowl Lottery Applications are available on the Refuge website.
        2. After the opening weekend of the hunting season, we only allow hunting on Tuesdays, Thursdays, and Saturdays. Hunters must check-in and out of the refuge by filling out the "Migratory Bird Hunt Report" permit and must possess and carry the permit while on the refuge. The harvest information must be filled out and turned in prior to exiting the hunting area.
        3. In the designated spaced blind area and assigned pond areas, you must remain within the blind or pond assigned to you.
        4. We require adults age 18 or older to accompany youth hunters 15 and under.
        5. While in the field, to take wildlife on the refuge, you may only possess nontoxic ammunition and shots hells in quantities of 25 or less.
        6. In the free-roam hunting areas, you may only use portable blinds or blinds constructed of vegetation.
        7. You must remove all blinds, decoys, shell casings, other personal equipment, and refuse from the refuge at the end of each day (see CFR 27.93 and 27.94).
        8. Hunters must enter and exit the hunting area from the three designated hunt parking lots, which open 1 ½ hours before legal sunrise and close 1 hour after sunset each hunt day.

9. We only allow access to the hunt area by foot and nonmotorized cart.
10. Mobility impaired hunters should consult the Refuge manager for allowed conveyances.

- Upland Game Hunting: We allow hunting of pheasant on designated areas of the refuge in accordance with State regulations subject to the following conditions:
    1. We limit hunting to junior hunters only, age 15 or under, possessing a valid State Junior Hunting License and refuge Junior Pheasant Hunt Permit.
    2. We require adults age 18 or older to accompany junior hunters.
    3. You may only possess approved nontoxic shot while in the field (see CFR 32.2 (k)).
    4. Hunters must enter and exit the hunting area from the three designated hunt parking lots.

- All hunting activities and operations will be reviewed annually to ensure compliance with all applicable laws, regulations, and policies.
- Adequate areas are designated as wildlife sanctuary with no or limited public use activities to provide high quality habitat for feeding, resting, and nesting. 3,845 acres (55 percent of the total Refuge acres) are designated as permanent sanctuary (i.e., no public access) for general wildlife use, nesting, and sensitive breeding population sites by 2009. Seasonally, an additional 2,977 acres provide sanctuary for wildlife.
- Population censuses will be reviewed annually with the CDFG to ensure that harvest from hunting is not unacceptably affecting the targeted populations. The program will be modified accordingly.
- Refuge specific hunting information will be available via signs, information panels, brochures, and the website (http://www.fws.gov/modoc).
- Refuge staff and law enforcement officer will work cooperatively with Klamath Basin law enforcement officers and CDFG wardens to enforce CFR, State Fish and Game hunting laws, and Refuge-specific regulations to provide a quality experience for all visitors.
- Refuge staff will conduct regular surveys of hunting activities on the Refuge. The data is analyzed and used by the refuge manager to develop future modifications if necessary to ensure compatibility of the hunting program.
- Dog training on the Refuge will not be allowed.

Justification

By its nature, waterfowl hunting would have direct, lethal effects on individual birds. However, hunting on the Refuge would not be expected to have any effects on waterfowl populations because the State of California regulates hunting consistent with Federal migratory bird hunting framework regulations that are based on long-term and extensive surveys and monitoring of waterfowl populations and their habitats, and hunters across North America. These survey and monitoring data form the largest data set on any wildlife species group in the world (U.S. Fish and Wildlife Service 2018). Using adaptive management principles to apply these data to the establishment of flyway regulations provides for waterfowl hunting opportunities across the Nation and helps to ensure the long-term health of waterfowl populations. The fact that waterfowl populations across the Pacific Flyway remain strong even though sport hunting of waterfowl has occurred on this Refuge since its establishment (and for decades before that time) is testament to the effectiveness of this overall management approach.

Additionally, hunting has given many people a deeper appreciation of wildlife and a better understanding of the importance of conserving their habitat, which has ultimately contributed to the Refuge System mission. Furthermore, despite the potential impacts of hunting, a goal of Modoc Refuge is to provide visitors of all ages an opportunity to enjoy wildlife-dependent recreation. Of key concern is to offer a safe and quality program and to ensure adverse impacts remain at an acceptable level.

Hunting is a wildlife-dependent recreational use listed in the National Wildlife Refuge System Improvement Act. Providing a quality hunting program contributes to achieving one of the Refuge's goals (Goal 3, Chapter 4 of the CCP). By facilitating this use on the Refuge, we will increase the visitors' knowledge and appreciation of fish and wildlife, which may lead to increased public stewardship of wildlife and their habitats on the Refuge. Increased public stewardship will support and complement the Service's actions in achieving the Refuge's purposes and the mission of the National Wildlife Refuge System. Approximately 4,691 acres (67 percent) will be closed to hunting and 3,845 acres (55 percent) will be closed to all public use to ensure an adequate amount of high-quality feeding and resting habitat (U.S. Fish and Wildlife Service 2009a).

Based upon impacts described in the Draft CCP, EA, and Hunting Plan (U.S. Fish and Wildlife Service 2009a, 2009b), it is determined that hunting within Modoc National Wildlife Refuge, as described herein, will not materially interfere with or detract from the purposes for which the Refuge was established or the mission of the Refuge System. In our opinion, implementing the Hunt Plan and associated stipulations will not conflict with the national policy to maintain the biological diversity, integrity, and environmental health of the Refuge.

Signature of Determination

Refuge Manager Signature and Date

Signature of Concurrence

Assistant Regional Director Signature and Date

Mandatory Reevaluation Date

2037

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