

COMPATIBILITY DETERMINATION

Use: Desert Bighorn Sheep Hunting

Refuge Name: San Andres National Wildlife Refuge

Establishing and Acquisition Authorities: President Franklin D. Roosevelt signed Executive Order 8646 creating the San Andres National Wildlife Refuge (NWR or Refuge) on January 22, 1941.

Refuge Purposes: The San Andre NWR was created for “the conservation and development of natural wildlife resources.” Primary emphasis since the establishment of the Refuge has been the restoration and management of desert bighorn sheep (*Ovis canadensis mexicana*) in the San Andres Mountain Range.

National Wildlife Refuge System Mission: The mission of the National Wildlife Refuge System is working with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people. 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.

Description of Use: The United States Fish and Wildlife Service (Service) is proposing to start desert bighorn sheep hunting on 57, 215 acres of San Andres NWR. Camping often occurs in association with hunting and may be a possibility in the future. See the compatibility determinations for camping for more information.

The purpose of the proposed action is to provide increased hunting opportunities on the San Andres NWR and provide visitors with a high-quality wildlife-dependent recreational experience on the Refuge. A desert bighorn ram hunt conforms to this objective by offering an uncrowded, highly individualistic experience. The hunting program would provide high quality, safe, and cost-effective hunting opportunities, and would be carried out consistent with State regulations.

With the exception of hunting, public access is limited to very specific activities and times. In cooperation with White Sands Missile Range (WSMR) and the New Mexico Department of Game and Fish (NMDGF), population reduction hunts for oryx (*Oryx gazella*) are conducted on the Refuge. An estimate of annual hunter visits for oryx hunting is no more than 35 oryx hunters per year; oryx hunters are permitted to bring up to three visitors in their hunting party. Hunters are responsible for their guests and all hunt party members would remain together within reasonable hunting and stalking techniques. Additionally, communication would be maintained by all persons in the hunt party for safety reasons. There are only limited oryx hunts currently managed on the Refuge and tour groups are escorted by request on a limited basis, averaging 1-2 times per year. Security Badge hunts issued by NMDGF for oryx are currently permitted during several months throughout the year. For the 2013-2014 hunt season, there are a total of 688 tags (i.e., Youth-only, broken-horn, security badge, and returning Iraq/Afghanistan Resident Veterans-only hunts) available for oryx hunting on WSMR, 780 oryx tags available Off-Range, 100 oryx tags available on McGregor Range, and additional private land hunts in New Mexico. Only security badge oryx hunts occur on the Refuge to include less than 35 oryx hunters annually. For example, oryx hunters are permitted to bring up to three guests, including their professional guide(s) to compose oryx hunt parties of four individuals per hunter; in FY12, 8 oryx hunters

visited the Refuge providing for a total of 38 hunt visits for oryx hunting. Total visitation to the Refuge in FY12 was 96 visitors, to include the 38 hunt visits.

When would the use be conducted?

We estimate numbers of visitors for the first desert bighorn sheep hunt to be no more than 12 individuals to include up to four hunters and one to three visitors per hunter. The desert bighorn ram hunts would occur during a 15-day period in late December and early January when uninterrupted access to WSMR and the Refuge is anticipated. Bighorn hunts would be prescribed according to access availability from WSMR and NMDGF hunt seasons. The hunt period would be based on mutual agreement between the Refuge, WSMR, and NMDGF. Scouting prior to the hunt shall occur only after receiving permission from WSMR and the Refuge.

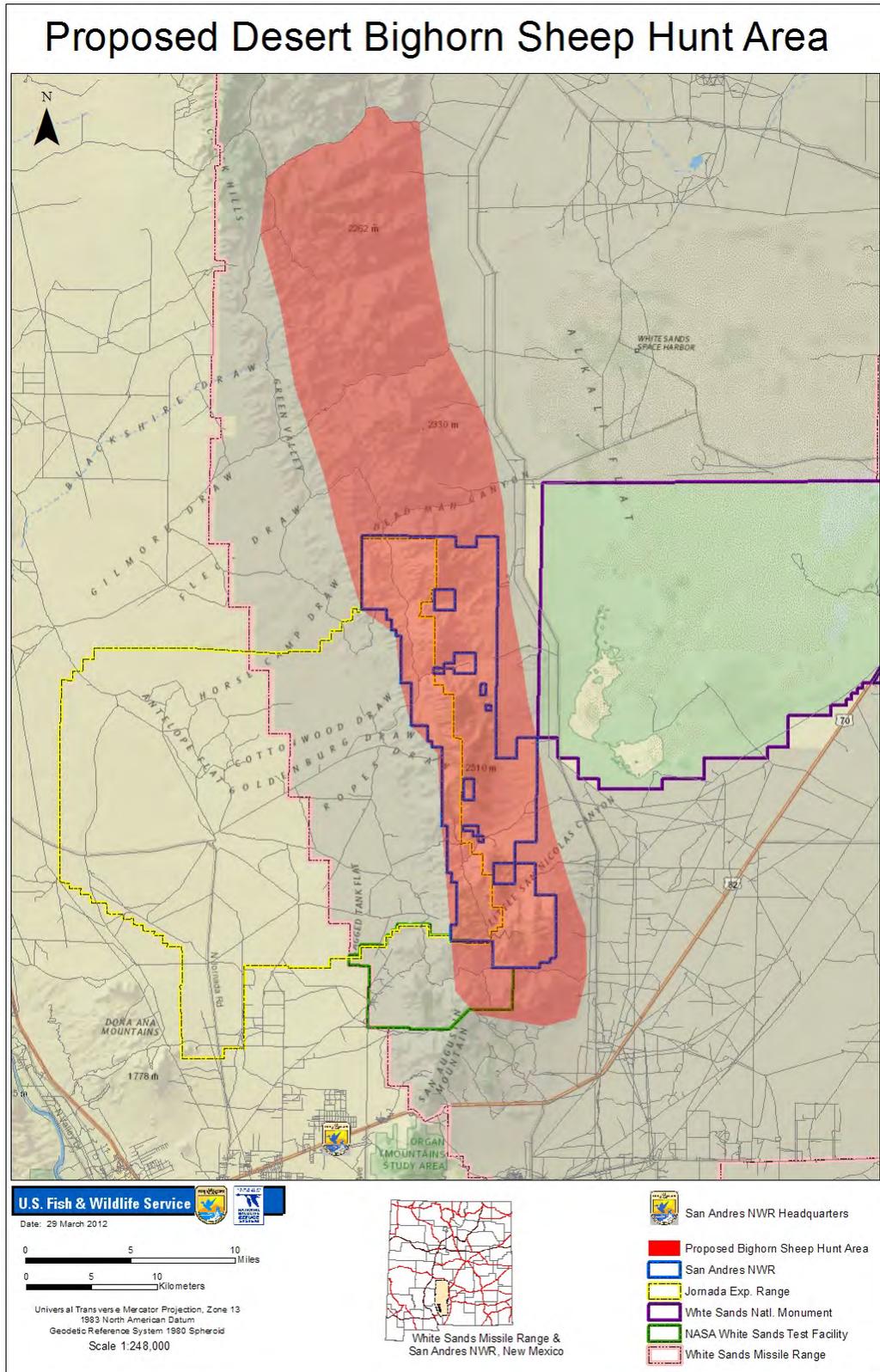
How would the use be conducted?

The proposed hunt area (approximately 186,000 acres to include 57,215 acres on the San Andres NWR) would include bighorn habitat in the San Andres Mountains (NMDGF Unit 19) on both Refuge WSMR lands (Figure 1). Hunt officials would provide detailed hunt area maps to all hunters prior to or on the day of their assigned hunt. The Refuge is completely surrounded by WSMR operated by the Department of Defense and is therefore closed to all public access. Access to the Refuge for hunting would depend on annual evaluations of the hunt program by the Refuge, WSMR, and NMDGF. Those evaluations would include assessment of fall aerial survey results, access logistics related to testing and training on WSMR, and any other issues that arise. Bighorn ram hunts would occur in the entire Refuge and portions of WSMR as defined by mutual agreement, addressed annually, between WSMR and Refuge. The hunt area may change depending on bighorn sheep distribution throughout the San Andres Mountains and/or WSMR testing and training activities.

Bighorn sheep hunting on San Andres NWR would have important differences from hunting on other public lands in New Mexico due to security and safety restrictions associated with WSMR testing and training activities. Some of the key contrasts from other New Mexico bighorn hunts would include some limitations of camping and use of all-terrain vehicles, except to retrieve harvested game on WSMR lands.

Desert bighorn sheep would be taken by hunters in accordance with WSMR, NMDGF, and Refuge specific regulations. The number of licenses and authorizations issued for the entire San Andres Mountains (NMDGF Unit 19) would be dependent on the bighorn sheep population size and demographics as determined by annual or biennial fall aerial surveys conducted by the Refuge, WSMR, and/or NMDGF. Bighorn sheep populations are susceptible to over-exploitation because of their low population growth rate and low population size, thus, determining the status of the San Andres Mountains bighorn population through bi-annual aerial surveys is necessary to ensure sustainability. Adjustments to the number of hunt tags issued may occur to reflect surveys and in cooperation with WSMR and NMDGF. For example, the first hunt season (2013-2014) may include three NMDGF lottery draw general public hunters; two adult and a possible Auction or Raffle hunter. If NMDGF Unit 19 is not selected by an Auction or Raffle hunter during any year then we would be below potential harvest level for that year.

Figure 1. Proposed hunt area (in red) for desert bighorn sheep in the San Andres Mountains, New Mexico which included the entire San Andres NWR and most of the San Andres Mountains Range. The San Andres Mountains lie within White Sands Missile Range boundaries.



The criteria to determine the number of available ram tags in western states varies ranging between 15% - 30% of mature rams identified as Class III and IV rams which are 6+ years of age (Utah Division of Wildlife Resources 2008, Washington Department of Fish and Wildlife 2008, Arizona Game and Fish Department 2011), 4% - 12% of the total ram numbers in the bighorn population (Nevada Division of Wildlife 2001, Utah Division of Wildlife Resources 2008, Colorado Division of Wildlife 2009), or a percentage of the statewide hunter success (Colorado Division of Wildlife 2009). Although the NMDGF Long-range Management Plan for Desert Bighorn Sheep (NMDGF 2003) does not specify a formula for the number of bighorn sheep ram tags issued, an action plan published in 2010 (NMDGF 2010) states that “none of the proposed herds have ever been hunted, therefore we should not have to err on the conservative side for several years.” That document also suggests 12% of the ram population is an acceptable number of permits to be issued initially (NMDGF 2010). Desert National Wildlife Refuge, Nevada, issues desert bighorn sheep ram permits each season equal to 8% of the total ram population estimate (Nevada Division of Wildlife 2001, USFWS 2009) and Kofa National Wildlife Refuge, Arizona, issues permits equal to 15-25% of the Class III and IV rams (Arizona Game and Fish Department 2011). If we consider the most recent year of complete data available for the San Andres Mountains in 2008, 20% of the Class III and IV rams equates to three tags and 25% equates to four tags (Table 1). Conversely, 8% of all rams documented in 2008 equates to two tags and 12% equates to 4 tags.

Hunters tend to target the oldest rams with the biggest horns in a given population. This can have a variety of indirect effects on the remaining sheep population. Singer and Zeigenfuss (2002) found that that young rams in trophy-hunted populations of mountain sheep were more involved in breeding activities and harassed ewes more frequently. However, the same study found no compelling evidence for any deleterious effects on ewe energetics or ewe reproductive success. Singer and Zeigenfuss (2002) also found that trophy hunting decreased competition between rams for obtaining copulations because rut groups in hunted populations had fewer rams than groups in unhunted populations. Additionally, they found compelling evidence for depressed survivorship of young rams in heavily hunted populations, but not in lightly trophy-hunted populations (<3 percent of the total population or <10 percent of standing ram population). By this standard, San Andres NWR’s sheep population would be considered lightly hunted if the number of tags issued is based on 10 percent of the total ram population or 20% of the mature rams.

We will begin the first combined Refuge and WSMR bighorn hunt with up to three tags available as there are considerable security, access, and safety issues related to hunting in NMDGF Unit 19 (Table 1). Based on these population statistics a ram hunt should not adversely impact the San Andres Mountains bighorn sheep population by providing a hunt for up to one Auction or Raffle hunter and two lottery draw public hunters. If fall aerial surveys are conducted in 2012 and 2013 whereby sufficient rams are documented, we may consider adding a fourth tag for a youth-only hunter based on composition of the bighorn sheep population and age structure of the ram segment in the entire herd.

Table 1. Ram numbers and age classes from 2008 survey related to potential ram harvest 2013-2014.

CI Rams	CII Rams	CIII Rams	CIV Rams	Unk. Rams	Total
6	9	12	3	0	30
8% of all rams (n=30) = 2.4 ~ 2 tags			15% of CIII & CIV rams (n=15) = 2.25 ~2 tags		
10% of all rams (n=30) = 3.0 tags			20% of CIII & CIV rams (n=15) = 3.00 ~3 tags		
12% of all rams (n=30) = 3.6 ~4 tags			25% of CIII & CIV rams (n=15) = 3.75 ~4 tags		
			30% of CIII & CIV rams (n=15) = 4.50 ~5 tags		

Ultimately, the level of ram harvest and amount of lion control would be decided on collaboratively between WSMR, NMDGF and the Service based on 1) minimum counts and the estimated size of the desert bighorn sheep herd, 2) demographics of the bighorn sheep herd, and 3) management issues related to access. Adjustments to the number of hunt tags issued may occur to reflect changes in the San Andres Mountains bighorn population demographics based on annual or biennial fall aerial surveys in cooperation with WSMR and NMDGF. Radiocollared and unmarked rams would be permitted for take per NMDGF regulations.

Initially camping on the Refuge and WSMR would not be permitted, but may change in the future depending on mutual agreement by the Refuge and WSMR. Should camping be permitted in the future, it would be restricted to Little San Nicholas Camp which is already used by researchers conducting studies on the Refuge. Hunters may require an escort by WSMR, NMDGF, or Refuge staff or their agent(s); hunters may be required to report to a check station depending on the number of hunters and escort availability. The need for escorts is determined on the number of hunters and escort availability. Depending on the number of hunters and available escort personnel, check stations located on WSMR may be established in lieu of the escort requisite. Federal and State laws and regulations are enforced by Refuge and WSMR law enforcement personnel and NMDGF game wardens, respectively (i.e., hunters must possess a valid hunting license and tags, etc).

Access to WSMR and the Refuge for desert bighorn sheep hunts would only be through the Small Missile Range gate. Due to safety and security requirements specific to the areas targeted for these hunts, bighorn sheep hunters may be escorted while on the Refuge or WSMR. Official escorts can only be on-duty WSMR hunt program personnel, and include Department of the Army Civilian Police, identified WSMR civilian and contractor personnel, Refuge staff, and NMDGF employees with authorized WSMR security access. Prior to each hunt, WSMR, Refuge, or NMDGF staff (or their agents) would provide hunters and guests with a WSMR safety and security briefing, and would conduct a vehicle, licensing, and registration inspection. If available, escorts would lead hunters to the hunt area, assist with locating sheep, and ensure location and shot safety. The need for escorts is determined on the number of hunters and escort availability. Depending on the number of hunters and available escort personnel, check stations located on WSMR may be established in lieu of the escort requisite.

In general, hunters would travel in vehicles on established roads to the hunt area and then they travel on foot. However, hunters can also travel via horseback or foot to their desired destination. Camping may be allowed at designated sites only. Initially camping on the Refuge and WSMR would not be permitted, but may change in the future depending on mutual agreement by the Refuge and WSMR. Should camping be permitted in the future, it would be restricted to Little San Nicholas Camp which is already used by Service staff and researchers conducting studies on the Refuge.

Desert bighorn sheep are a renewable resource that have increased in recent years on the Refuge - to the point where a recreational hunt can be conducted without adverse impact to the population. By conducting Youth Hunts on the Refuge, we would be encouraging family-oriented outdoor recreation and supporting the tradition of hunting. Expansion of hunting opportunities on the refuge promotes positive relationships with the public, hunting organizations, WSMR, and the NMDGF.

Availability of Resources: Initial start up funding for the U.S. Fish and Wildlife Service (Service) is estimated to be \$50,000 for planning and operating the bighorn ram hunt program. It is estimated that the hunt program's annual cost would be approximately \$5,000. Based on a review of the Refuge budget allocation for this biological management activity and available Federal and State staff, resources

are adequate to insure compatibility and to administer and manage the use. Cost figures are shown below:

Annual staff time:	Administration & Biological Review	\$2,000.00
	Facilities Maintenance	\$2,000.00
	Law Enforcement	<u>\$1,000.00</u>
	Total	\$5,000.00

Anticipated Impacts of the Use:

Impacts on Soils: Road improvements under the proposed alternative would have minimal direct impacts on soils. Additional road maintenance to support access for bighorn sheep hunters would result in some disturbance to soil along existing roads, potentially causing erosion in the small affects areas. Additional disturbances to soils would include increased use by heavy equipment such as road graders to maintain roads and increased traffic by bighorn sheep hunt parties. These activities would result in minor impacts on soils due to the small areas being affected. No additional roads would be constructed for the proposed alternative.

Impacts on Habitat: Minimal impacts to the habitat are expected under the proposed alternative with increased foot traffic by bighorn sheep hunting parties. ATVs would not be permitted for retrieval of harvested rams and increased foot traffic by bighorn hunters would result in minor impacts on habitats due to the small areas being affected. When available, camping would occur only at Little San Nicholas Camp in an already established camp site used by researchers and Service personnel. We do not anticipate other parties using Little San Nicholas Camp at the same time as bighorn hunters. Bighorn hunters are permitted to bring up to three visitors as part of their hunting party; as an example, with four hunting parties and four escorts, the anticipated potential number of people camping at Little San Nicholas Camp during bighorn hunts would be 20 individuals. This is equivalent to when the Service uses this camp site as a base camp for prescribed fires on the Refuge. Bighorn sheep hunt parties would be required to bring their own potable water and food, pack out their trash, and no camp fires would be permitted. They would be permitted to set up tents during scouting or hunt visits; vehicles must stay on roads and established parking areas.

Maintaining or improving roads would protect habitats from unnecessary disturbance. Road improvements would result in minimal impacts to habitat. Only existing roads would be maintained for bighorn hunt parties to access the Refuge, resulting in minor losses of vegetation in the small affected areas. These activities would result in minor impacts on habitats due to the small areas being affected.

Impacts on wildlife: Possible impacts of sheep hunting include: the direct take of bighorn sheep rams and its indirect effects on the remaining population; disturbance to sheep and other wildlife; and habitat modification. All these impacts are expected to be relatively minor and localized due to the low levels of use on the Refuge.

A controlled number of bighorn sheep would be harvested by sport hunting annually, except for years when no season is held. The hunting harvest would cause a temporary reduction in the bighorn population. Hunters would temporarily disrupt the activities of individual bighorns such as feeding and resting patterns. This impact is minor and would not result in any long-term changes in bighorn use patterns. There would be minor disturbance of limited duration to other wildlife during the hunt. There

are no expected impacts to the biological integrity of the Refuge. There is a potential displacement of other Refuge visitors who would not be able to participate in other Refuge activities during the period of the hunt. There is an inherent public safety risk associated with the use of firearms; hunters would follow all NMDGF and WSMR regulations relative to use of firearms and safety.

Immediate responses by wildlife to recreational activity can range from behavioral changes including nest abandonment or change in food habits, physiological changes such as elevated heart rates due to flight, or even death (Knight and Cole 1995). The long term effects are more difficult to assess but may include altered behavior, vigor, productivity or death of individuals; altered population abundance, distribution, or demographics; and altered community species composition and interactions. According to Knight and Cole (1991), there are three wildlife responses to human disturbance: 1) avoidance; 2) habituation; and 3) attraction. The magnitude of the avoidance response may depend on a number of factors including the type, distance, movement pattern, speed, and duration of the disturbance, as well as the time of day, time of year, weather; and the animal's access to food and cover, energy demands, and reproductive status (Knight and Cole 1991; Gabrielsen and Smith 1995).

In otherwise suitable habitat, sheep have been observed to abandon an area, either temporarily or permanently, when their tolerance to disturbance is exceeded (Welles and Welles 1961, Light 1971, Wehausen 1980, Papouchis et al. 2001, Thompson et al. 2007). If the resulting loss of habitat is significant, the population's carrying capacity could be reduced (Light and Weaver 1973). Furthermore, when disturbance elicits a flight response in sheep, resulting energetic losses and loss of foraging time could negatively affect the physiology of individuals, potentially reduce their survival and reproductive success (MacArthur et al. 1979). Papouchis et al. (2001) found that response of female bighorn sheep to disturbance was greater during the spring lambing period and the response of male sheep was greatest during the fall rut.

In some circumstances, sheep may habituate to predictable human activity (Wehausen et al. 1977, Kovach 1979), including highway traffic (Horesji 1976), hiking (Hicks and Elder 1979, Hamilton et al. 1982, Holl and Bleich 1987), and aircraft (Weisenberger et al. 1996, Krausman et al. 1998). Habituation is defined as a form of learning in which individuals stop responding to stimuli that carry no reinforcing consequences for the individuals that are exposed to them (Alcock 1993). A key factor for predicting how wildlife would respond to disturbance is predictability. Gabrielsen and Smith (1995) suggest that most animals seem to have a greater defense response to humans moving unpredictably in the terrain than to humans following a distinct path.

Desert bighorn sheep would be taken by hunters in accordance with WSMR, NMDGF, and Refuge specific regulations. The number of licenses and authorizations issued for the entire San Andres Mountains would be dependent on the bighorn sheep population size and demographics as determined by annual or biennial fall aerial surveys conducted by the Refuge, WSMR, and/or NMDGF. Bighorn sheep populations are susceptible to over-exploitation because of their low population growth rate and low population size, thus, determining the status of the San Andres Mountains bighorn population through systematic bi-annual aerial surveys is necessary to ensure sustainability.

Temporary disturbance would occur during scouting and hunting in bighorn sheep habitat, but bighorn sheep and other wildlife species would be able to return to the affected areas following the disturbance. Camping at Little San Nicholas Camp would also cause temporary disturbance to wildlife in the general vicinity. Initially camping on the Refuge and WSMR would not be permitted, but may change in the future depending on mutual agreement by the Refuge and WSMR. Should camping be permitted, it

would be restricted to Little San Nicholas Camp which is already used by Service personnel and researchers conducting studies on the Refuge. Because this site is already used by Service personnel and researchers, temporary and minor impacts are expected by allowing bighorn hunt parties to also camp at Little San Nicholas Camp.

Oryx hunts on the Refuge would not occur at the same time as bighorn hunts; oryx hunters are not permitted to camp on WSMR or the Refuge.

Impacts on Visitor Services: The proposed alternative would have a negligible effect on recreation. While some additional hunting opportunities would be opened up by desert bighorn sheep hunts on the Refuge, they would be limited by time and number and so would have little impact. There are approximately 1100 hunting permits on WSMR for trophy and population reduction oryx hunts, and an additional 500-800 permits for off-range oryx hunting. Additional fall desert bighorn sheep hunts in southern New Mexico that do not have access restrictions can be found in NMDGF Units 13, 20, 26, and 27 on public lands and in NMDGF Unit 20 on private land. The Refuge is closed to public access due to the proximity of WSMR which surrounds the Refuge. This area is a large area primarily for military weapons testing. Visitors are not allowed on the Refuge unescorted. For this reason, the Refuge is not opened to all recreational activities-fishing, interpretation, environmental education, wildlife observation, and wildlife photography and would not be impacted by the hunting program.

The proposed action would allow camping on the Refuge at Little San Nicholas Camp providing additional overnight visitor services opportunities. Members of desert bighorn sheep hunt parties would be expected to bring food and potable water, pack out all trash, and no campfires would be permitted. Initially camping on the Refuge and WSMR would not be permitted, but may change in the future depending on mutual agreement by the Refuge and WSMR. Should camping be permitted in the future, it would be restricted to Little San Nicholas Camp which is already used by researchers conducting studies on the Refuge. This alternative would expand bighorn public use of the Refuge. These actions would result in increased staff time at the Refuge in order to accommodate visitor needs.

Cumulative Impacts: Opening of the Refuge to desert bighorn sheep hunting may contribute to further financial support for wildlife conservation, as hunters have provided through purchases of hunting licenses and migratory bird conservation stamps, and taxes levied on purchases of hunting equipment, a steady stream of revenue to build the National Wildlife Refuge System, and to restore upland and wetland habitats on millions of acres of public and private lands across the country. These habitat projects also benefit migratory songbirds and other wildlife.

Cumulative Impacts to Resident Wildlife: San Andres NWR anticipates hunting harvest to occur immediately on Refuge lands as a result of opening these areas to desert bighorn sheep hunting; Auction or Raffle hunters may choose to hunt elsewhere in the State due to the availability of public and private land open to hunting. Refuge-specific hunting regulations may be altered to achieve species-specific harvest objectives in the future. There are no other reasonably foreseeable hunts and anticipated impacts. Consequently, no direct or indirect unanticipated cumulative impacts would occur.

The proposed alternative would have temporary and minor effects on wildlife forms other than desert bighorn sheep. Non-hunted resident wildlife would include resident birds, small mammals such as voles, moles, mice, shrews, and bats; reptiles and amphibians such as snakes, turtles, frogs and toads; and invertebrates such as butterflies, moths, insects and spiders. These species have very limited home ranges and hunting could not possibly affect their populations regionally; thus, only local effects would

be discussed. Disturbance by hunting to non-hunted wildlife would be the most likely concern. Displacement of resident birds is usually brief, infrequent, and short distance. Disturbance would be unlikely for many small mammals, such as bats, which are inactive during fall and winter when hunting season occurs, and/or are nocturnal. Hibernation or torpor by cold-blood reptiles and amphibians also limits their activity during the hunting season when temperatures low, making encounters with reptiles and amphibians infrequent and inconsequential to local populations. Invertebrates are also not active during cold weather and would have few interactions with hunters during the hunting season. The Service anticipates no measurable negative cumulative impacts to resident non-hunted wildlife populations locally, regionally, or globally due to this alternative.

The only past and present project or management action being conducted on the Refuge that would directly affect resources analyzed in this environmental assessment is the prescribed burning program conducted on the Refuge since 1999. The prescribed fire program has treated approximately 90% of the Refuge since prescribed burns were initiated. Prescribed burning is conducted on the Refuge to restore habitats for mule deer (*Odocoileus hemionus*) and desert bighorn sheep, specifically to rejuvenate forage species such as mountain mahogany, increase forage palatability and quality for native wildlife, recycle nutrients, and reduce woody plant encroachment into desert grasslands. Indications are that there is a benefit for resource values of the Refuge by conducting prescribed burns. Prescribed burns are conducted primarily during historical burning periods and are designed to mimic natural fires. Habitats located on the San Andres NWR are adapted to fire with many plant species dependent on regular burning to maintain a healthy ecosystem.

Cumulative Impacts to Migratory Species: Neotropical migratory avian species would not be present during the bighorn hunting season; resident and wintering species may experience temporary disturbance when bighorn hunting parties are hiking. However, impacts to the overall avian community are expected to be negligible.

Cumulative Impacts to Endangered Species: There are no federally listed endangered or threatened species documented on the San Andres NWR.

Cumulative Impacts to Other Refuge Wildlife-Dependent Recreation: The Refuge is completely surrounded by WSMR, operated by the Department of Defense, and is therefore closed to all public access (Figure 1). The only regularly occurring source of wildlife-dependent recreation on the San Andres NWR is oryx hunting, which would continue except during bighorn hunts. Infrequent visits by special interest groups volunteering for work projects or participating on Refuge tours would continue whenever possible, as requested. On average, tours are requested once per year.

One of the intentions of the Refuge Improvement Act is to provide Refuge visitors with a quality, safe and enjoyable recreational experience oriented toward wildlife. These uses must be compatible with the purpose for which the Refuge was established. The Service recognizes that hunting and fishing are acceptable, traditional form of wildlife-dependent recreation as well as a management tool to effectively control certain wildlife population levels.

The Refuge Improvement Act clearly identifies the top six wildlife dependent activities such as Hunting, Fishing, Environmental Education, Environmental Interpretation, Wildlife Photography and Observation. San Andres NWR, in addition to hunting, provides visitors with several of the remaining opportunities, despite considerable access issues. Historically hunting has had no impacts on those opportunities that

occur during the hunting season. The Refuge anticipates minor impacts to other forms of wildlife dependent activities (i.e., volunteer activities and special interest tours) on San Andres NWR.

Cumulative Impacts to Refuge Facilities: The proposed action would have no cumulative effects on Refuge facilities.

Cumulative Impacts to Cultural Resources: Under each alternative, hunting is a consumptive activity that does not pose any threat to the cultural resources on and/or near the Refuge.

Anticipated Cumulative Effects of Alternatives on Refuge Environment and Community: It is the best professional judgment of the Refuge Manager that the proposed action would have no measurable adverse cumulative effects on the Refuge environment, and would likely have positive local and cumulative effects on communities. The proposed action would enhance the Refuge's ability to garner support for conservation from communities, and to minimize the risk of adverse effects of over-abundant species on habitats, priority wildlife species, and human health and safety. Furthermore, this alternative is in the best interests of the natural resources of the refuge and vicinity and the region, and it is consistent with Service policy and the National Wildlife Refuge Improvement Act.

Public Review and Comment:

Public scoping of the proposed action was initiated on 28 August 2012 when a news release was released and also sent it out via 43 letters and emails to potential interested parties announcing the initial scoping period for development of this EA. The official scoping period ran consecutively from 28 August thru 26 September 2012. During this scoping period, the Refuge received five comments from the public; three comments in favor of initiating bighorn hunts on the Refuge and two comments in opposition. A second press release for the public comment period (7 November – 5 December 2012) was also made available at the Branigan Public Library, including a DRAFT copy of the San Andres NWR Desert Bighorn Sheep Hunt Plan and associated Environmental Assessments for public review and comment. Letter of support for a hunting program at the Refuge were sought from New Mexico Department of Game and Fish and White Sands Missile Range. The Service also provided an opportunity for an in-depth review by the Service Regional Office to provide comment.

Determination (check one below):

Use is Not Compatible

Use is Compatible with Following Stipulations

Stipulations Necessary to Ensure Compatibility:

1. Biological data would be collected and analyzed to ensure that the San Andres Mountains desert bighorn sheep herd reduction is biologically sound and being hunted while maintaining a sustainable and viable herd.
2. Activities would be coordinated between Service, WSMR, and NMDGF staff to manage the operation to achieve intended objectives.
3. Both Federal and State law enforcement personnel would ensure compliance with Refuge regulations and state laws for the protection of Refuge resources and the safety of participants.

Justification: The San Andres NWR desert bighorn sheep hunting program is determined to be compatible with the establishment purposes of the Refuge and the mission of the National Wildlife Refuge System. Hunting of bighorn rams would provide a wildlife-oriented recreational use. This hunt program would also be managed in such a way to minimize conflicts with other compatible recreational uses and management programs. The Refuge would monitor hunter use, compliance with rules and regulations, and impacts to desert bighorn sheep populations and habitats. This information would be used to adjust this hunt program as necessary to protect Refuge trust resources.

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Refuge Determination:

Refuge Manager: _____
(Signature) (Date)

Concurrence:

Regional Chief: _____
(Signature) (Date)

Mandatory 10- or 15-year Re-Evaluation Date: _____