

COMPATIBILITY DETERMINATION

USE: Fishing

REFUGE NAME: Sevilleta National Wildlife Refuge (refuge, NWR)

DATE ESTABLISHED: December 28, 1973

ESTABLISHING AND ACQUISITION AUTHORIT(IES):

16 U.S.C. § 460k-2 - Refuge Recreation Act (16 U.S.C. § 460k-460k-4), as amended;

16 U.S.C. § 742f(a)(4) and 16 U.S.C. § 742f(b)(1) - Fish and Wildlife Act of 1956;

REFUGE PURPOSE(S):

"to preserve and enhance the integrity and the natural character of the ecosystems of the property by creating a wildlife refuge managed as nearly as possible in its natural state, employing only those management tools and techniques that are consistent with the maintenance of a natural ecological process... not to be subjected to commercial exploitation ... and the land and the flora and fauna supported by it be managed to permit the natural ecological successions and processes typical of the area to prevail... and that portions of the property will be made available to educational institutions and conservation organizations ... for scientific research and study." Quit Claim Deed, dated December 28, 1973.

"... 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-1 "... 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 (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 (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.

DESCRIPTION OF USE:

What is the use?

Fishing is one of the "Big 6" wildlife-dependent priority public uses on national wildlife refuges as identified in the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997.

Where is the use conducted?

Fishing could possibly occur on the Rio Grande where it flows through the refuge. Access to the west bank of the Rio Grande would be through the refuge's wetland units. There is no public access to the east side of the Rio Grande on the refuge. In the past, refuge visitors have inquired about fishing in the irrigation ditch that runs north-south through the refuge just west of the Rio Grande. The ditch and associated ditch bank roads are owned by the Bureau of Reclamation and managed by the Middle Rio Grande Conservancy District and are not owned by the U.S. Fish and Wildlife Service, so they are not part of this Compatibility Determination (CD).

When is the use conducted?

If permitted, fishing would be allowed for the same season as the southern portion of New Mexico Game and Fish Department's La Joya Wildlife Area (March 15 through August 31). Access to refuge wetland units is gained by driving through the La Joya Wildlife Area. Refuge public uses are allowed daily from sunrise to sunset.

How is the use conducted?

Currently, there are no access routes through the wetlands units to reach the Rio Grande. A trail through the wetland units could provide access to the Rio Grande March-August, if no endangered species take up residence within a quarter-mile of such a trail. In the winter months, when water is held for vegetation management and waterfowl hunting, access through the units would be very limited and could present safety issues as there is hunting in the area. Public access is limited to designated roads and trails.

Why is the use being proposed?

Fishing is a priority public use on Refuge System lands as identified in the National Wildlife Refuge System Improvement Act of 1997. Allowing access to the refuge for fishing is consistent with the goals of the refuge and Refuge System.

AVAILABILITY OF RESOURCES:

At current staffing and funding levels, the refuge is unable to develop, maintain, or manage the proposed use. During the past several years, Sevilleta NWR staffing levels have been reduced and there are only five full time staff members. There are currently only two federal wildlife officers to cover the nine refuges throughout New Mexico.

ANTICIPATED IMPACTS OF THE USE:

Short and Long-term Impacts:

Impacts of the proposed use include natural resource degradation and erosion in and around the wetland units due to increased vehicle traffic, parking needs, foot traffic through the units, and pedestrian use of wetland units/river banks, as well as wildlife disturbance. These impacts could be minimized if parking, access routes, and use areas were properly planned, developed, created, and maintained. However, refuge staff is working to restore and improve habitats in the area to

attract three endangered species: Middle Rio Grande silvery minnow, southwestern willow flycatcher, and yellow-billed cuckoo. Southwestern willow flycatcher and yellow-billed cuckoo nests and/or territories have been documented within the wetland units. Increased use of the area by these endangered species could preclude the recreational use of the wetland units during breeding and nesting seasons, which coincide with fishing season.

Cumulative Impacts:

Cumulative impacts are expected to be similar to short and long-term impacts, with erosion developing over time from people creating trails and from trampling of vegetation along the edge of the river. Cumulative erosion impacts could result in small areas of bank collapse or bare areas that will erode easier than vegetated areas. Other cumulative impacts could include vegetation community changes to earlier seral stage vegetation more adapted to disturbed and/or compacted sites.

PUBLIC REVIEW AND COMMENT:

Comments were solicited on the draft CD for this use from June 15 through July 15, 2018, via posting in the Sevilleta NWR visitor center, in local newspapers, and on Sevilleta NWR's website and Facebook page. No comments were received.

DETERMINATION (CHECK ONE BELOW):

Use is not compatible

Use is Compatible with the following stipulations:

JUSTIFICATION:

Without proper staffing and funding to support development, maintenance, and management of the proposed use, the activity would interfere and detract from fulfilling refuge purposes and the Refuge System mission. Impacts to natural resources, particularly endangered species, would be unacceptably high and unmitigated. Restoration efforts in progress have the potential to create areas designated as critical habitat, which would require higher levels of protection and management than currently anticipated for the proposed use to be considered compatible.

Signature: Refuge Manager Kathleen Brunk 8/17/18
(Signature and Date)

Concurrence: Regional Chief [Signature] - 9/27/18
(Signature and Date)

Mandatory 15-year Re-Evaluation Date: _____ 2033

COMPATIBILITY DETERMINATION

USE: Cemetery Access for Visitation and Maintenance

REFUGE NAME: Sevilleta National Wildlife Refuge (refuge, NWR)

DATE ESTABLISHED: December 28, 1973

ESTABLISHING AND ACQUISITION AUTHORIT(IES):

16 U.S.C. § 460k-2 - Refuge Recreation Act (16 U.S.C. § 460k-460k-4), as amended;
16 U.S.C. § 742f(a)(4) and 16 U.S.C. § 742f(b)(1) - Fish and Wildlife Act of 1956;

REFUGE PURPOSE(S):

"to preserve and enhance the integrity and the natural character of the ecosystems of the property by creating a wildlife refuge managed as nearly as possible in its natural state, employing only those management tools and techniques that are consistent with the maintenance of a natural ecological process... not to be subjected to commercial exploitation ... and the land and the flora and fauna supported by it be managed to permit the natural ecological successions and processes typical of the area to prevail...and that portions of the property will be made available to educational institutions and conservation organizations... for scientific research and study." Quit Claim Deed, dated December 28, 1973.

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"... for the development, advancement, management, conservation, and protection of fish and wildlife resources ..." 16 U.S.C. § 742f(a)(4) "... for the benefit of the United States Fish and Wildlife Service, in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude ..." 16 U.S.C. § 742f(b)(1) (Fish and Wildlife Act of 1956).

NATIONAL WILDLIFE REFUGE SYSTEM MISSION:

The mission of the National Wildlife Refuge System (Refuge System) is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.

DESCRIPTION OF USE:

What is the use?

The refuge receives requests annually for access to visit and maintain family cemeteries on the refuge. Several families have historically been allowed access to family cemeteries on the

Sevilleta NWR. These cemeteries have a long history, beginning when the land was part of the Sevilleta Land Grant. The previous landowner, prior to acquisition by the U.S. Fish and Wildlife Service (Service), allowed family members to continue to visit the gravesites and at times even allowed burials to occur.

Where is the use conducted?

There are two known cemeteries where families have requested visitation. Both cemeteries are near the village of Alamillo, are in a portion of the refuge with limited access, and are very close to an existing utility right-of-way road, which they use to access the cemeteries.

When is the use conducted?

Visitation is usually for 1 or 2 days around Memorial Day and Christmas and includes maintaining the plots by pruning shrubs and weeds and cleaning gravesites.

How is the use conducted?

Several family members at a time visit the cemeteries 2-3 times per year. They access the site by going through a refuge boundary gate, driving along the utility right-of-way road, and then walking a short distance from the road to the cemetery.

Why is the use being proposed?

Cemetery visitation was permitted prior to the refuge's establishment and by the Service post-establishment. This use was previously found compatible in the refuge's 2000 Comprehensive Conservation Plan and is now being reviewed again.

AVAILABILITY OF RESOURCES:

There are ample resources to administer this program within current funding levels. Typically, two Special Use Permits (SUPs) are provided each year: one to the Lucero family and one to the Baca-Aragon family. The families contact the refuge each year to renew their permit. The families are responsible for all maintenance at the cemeteries with approval by the refuge manager. Normally scheduled refuge road maintenance and right-of-way maintenance is adequate to maintain the roads utilized by these families for the 2-4 days per year that they visit the cemeteries.

ANTICIPATED IMPACTS OF THE USE:

Short and Long-term Impacts:

Impacts from this use are minimal. There is minimal wildlife disturbance as families utilize existing roads in one or two cars to drive to the cemeteries. Both cemeteries occur within a half-mile of the refuge boundary and, the maximum distance of driving onto the refuge is approximately one mile (this is to the Baca-Aragon Cemetery).

We expect future requests by families to remove vegetation such as mesquite and other brush from covering gravestones within the cemeteries.

Cumulative Impacts:

No cumulative impacts are expected.

PUBLIC REVIEW AND COMMENT:

Comments were solicited on the draft Compatibility Determination for this use from June 15 through July 15, 2018, via posting in the Sevilleta NWR visitor center, in local newspapers, and on Sevilleta NWR's website and Facebook page. No comments were received.

DETERMINATION (CHECK ONE BELOW):

Use is not compatible

Use is Compatible with the following stipulations:

STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:

To ensure compatibility with the Refuge System and the refuge goals and objectives, cemetery visitation can only occur under the following conditions:

1. Family members must obtain an SUP each year.
2. Family members may only drive to the cemeteries and may not drive or visit other areas of the refuge.
3. The refuge manager must approve all maintenance of vegetation, fences, and headstones. Any trash produced by these activities must be removed at the end of each visit. Parking areas will remain in an unimproved state.
4. No large (>20 people) gatherings, ceremonies, or celebrations will take place without the approval of the refuge manager.
5. Only small headstones and displays can be placed in the cemeteries. Approval for replacements or additions must be obtained from the refuge manager. Materials that will cause disturbance or be potentially harmful to wildlife will not be allowed (e.g., streamers, plastic flowers, non-native flowers).
6. Cemetery visitation will occur during daylight hours only.
7. No new burials.
8. Additional stipulations required by the refuge manager may be addressed in the annual SUPs.

JUSTIFICATION:

Annual SUPs will allow refuge staff to assess if any changes need to be made to the permits to ensure continued compatibility. In addition, visitation will occur irregularly, during daylight hours, and within very close proximity to the boundary of the refuge, creating very little wildlife disturbance. Very little degradation to the existing road surface is expected from this use. Each cemetery is only about 1/10 of an acre, and landscaping within the fenced cemeteries will not have a significant impact on refuge resources. These cemeteries have been in existence for many years (perhaps centuries), and represent an important part of the cultural heritage of the area. Furthermore, given the history, strong attachment, and traditions these families have to their ancestors, these cemeteries have remained an important part of the family heritage for both the Lucero and Baca-Aragon families. Ultimately, these families help tell a story about the use of Sevilleta NWR long before it ever was considered to become part of the Refuge System.

This activity will not conflict with any of the other priority public uses or adversely impact biological resources. Therefore, through the compatibility determination process, we have determined that cemetery visitation on the refuge, in accordance with the stipulations provided above, is a compatible use that will not materially interfere with or detract from the fulfillment of the Refuge System mission or the purposes of the refuge.

Signature: Refuge Manager Kathleen Arzullo 8/17/18
(Signature and Date)

Concurrence: Regional Chief [Signature] 9/27/18
(Signature and Date)

Mandatory 10-year Re-Evaluation Date: 2028

COMPATIBILITY DETERMINATION

USE: Recreational Use in San Lorenzo Canyon

REFUGE NAME: Sevilleta National Wildlife Refuge (NWR, refuge)

DATE ESTABLISHED: December 28, 1973

ESTABLISHING AND ACQUISITION AUTHORIT(IES):

16 U.S.C. § 460k-2 - Refuge Recreation Act (16 U.S.C. § 460k-460k-4), as amended;
16 U.S.C. § 742f(a)(4) and 16 U.S.C. § 742f(b)(1) - Fish and Wildlife Act of 1956;

REFUGE PURPOSE(S):

"to preserve and enhance the integrity and the natural character of the ecosystems of the property by creating a wildlife refuge managed as nearly as possible in its natural state, employing only those management tools and techniques that are consistent with the maintenance of a natural ecological process... not to be subjected to commercial exploitation ... and the land and the flora and fauna supported by it be managed to permit the natural ecological successions and processes typical of the area to prevail...and that portions of the property will be made available to educational institutions and conservation organizations... for scientific research and study." Quit Claim Deed, dated December 28, 1973.

"... 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-1 "... 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 (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) (1) (Fish and Wildlife Act of 1956).

NATIONAL WILDLIFE REFUGE SYSTEM MISSION:

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DESCRIPTION OF USE:

What is the use?

Recreational use of San Lorenzo Canyon (the canyon) includes priority uses (wildlife observation, photography, and interpretation). These are addressed in separate Compatibility

Determinations (CD). We also allow horseback riding, hiking off-trail and primitive camping in the canyon.

Where is the use conducted?

The canyon crisscrosses the administrative boundary between refuge land and the Bureau of Land Management, Socorro Field Office (BLM SFO) land. The BLM has designated the canyon as a Special Management Area. Areas with this designation provide recreation experiences while protecting resources. The canyon is a popular recreation destination for hiking, camping, horseback riding, and for viewing geologic features such as hoodoos. The refuge and BLM SFO have managed the area together for many years.

When is the use conducted?

The canyon is visited year-round, although most visitation is Fall-Winter-Spring. Most visitors recreate in the canyon on weekends (we estimate 25-50 per day); there is much less use during the week (we estimate 5-10 per day). The canyon offers 24-hour access.

How is the use conducted?

There are no structures or facilities in the canyon. Primitive camping is allowed. Most people camp close to the canyon bottom or just off the road. The public can drive most of the length of the canyon, although high-clearance 4X4 vehicles are recommended as most of the road is in the canyon floor (arroyo). Vehicles are not allowed off-road. Most people access the canyon by vehicle combined with hiking. The canyon is also popular for trail riding using horses and mules. Within the canyon, there are scattered trails and slot canyons that people hike. There are no designated trails, unlike the refuge trails around the visitor center. The refuge provides a San Lorenzo Canyon brochure, which warns visitors to pay attention to the weather, and that flash floods could occur.

Why is the use being proposed?

Allowing access to the canyon for off-trail hiking, horseback riding, and camping is consistent with the goals of the refuge and the Refuge System. The canyon provides a unique visitor experience with its wind-swept sandstone walls and hoodoos and several springs that offer oases in the hot, dry environment. Many of the geologic features can only be observed by hiking off-trail up the narrow slot canyons. The BLM portion of the canyon offers several horse trails that provide riders with spectacular views of the scenery and often of wildlife. While most of the refuge has limited public access, the canyon provides one of the few areas where the public can freely enter and see this type of terrain and the wildlife that inhabit it. Primitive camping in the canyon allows visitors to observe wildlife at dawn and dusk more readily, and into the night. There are no comparable areas where similar uses occur.

AVAILABILITY OF RESOURCES:

The refuge and BLM SFO jointly manage the canyon. The BLM SFO provides most of the road maintenance with occasional assistance from Law Enforcement (LE) and refuge maintenance staff, and the Zone Refuge LE Officer assists with law enforcement. In the past, the refuge has paid for interpretive signs, which the BLM SFO staff installed. The current level of use can be sustained with these limited resources.

ANTICIPATED IMPACTS OF THE USE:

Short and Long-term Impacts:

Given the primitive nature of the uses, the impacts are few. There could be erosion issues on well-used hiking and horseback riding trails, although the canyon is subject to high water flows that send torrents of water rushing down the side canyons and the main stem, effectively erasing any sign of human use. Visitors on foot, in vehicles or on horseback, could disturb wildlife. Desert bighorn sheep frequent the canyon, and often the canyon provides nest sites for various ravens, vultures, and hawks. All of these species use the high cliffs of the canyon, and disturbance would be from visitor presence or noise. Due to the primitive nature of the camping that occurs and the lack of facilities or structures, some littering is anticipated to occur. Visitors are encouraged to practice leave-no-trace principles in the area. Additionally, some illegal activities may occur, due to the 24-hour free access of the canyon. Overall visitor numbers are relatively low; hence, disturbance is minor.

Cumulative Impacts:

No adverse cumulative impacts are expected to result from recreational uses of the canyon.

PUBLIC REVIEW AND COMMENT:

Comments were solicited on the draft CD for this use from June 15 through July 15, 2018, via posting in the Sevilleta NWR visitor center, in local newspapers, and on Sevilleta NWR's website and Facebook page. No comments were received.

DETERMINATION (CHECK ONE BELOW):

Use is not compatible

X Use is Compatible with the following stipulations:

STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:

To ensure compatibility with the Refuge System and refuge goals and objectives, primitive camping, off-trail hiking and horseback riding can only occur under the following conditions:

1. We only allow street-legal, motorized vehicle use on designated roads and we do not allow off-road motor vehicle travel.
2. All visitors must honor all "area closed" boundary signs.
3. Visitors cannot disturb or remove wildlife, vegetation, rocks, or historical objects. Visitors must observe wildlife from a safe distance. Young animals should be left alone.
4. Pets must be kept on a leash and under control at all times.
5. Visitors are prohibited from being under the influence of intoxicating beverages or controlled substances while on San Lorenzo Canyon or the refuge.
6. We will assess the carrying capacity of recreation use of San Lorenzo Canyon and maintain a balance between wildlife disturbance and an outstanding visitor experience.

JUSTIFICATION:

Recreation use, primitive camping, horseback riding, and off-trail hiking as described above are consistent with the current management direction of the refuge. It will provide the visitor with an opportunity to experience wildlife first-hand and develop knowledge about animal behavior, adaptations, and habitat requirements while also developing an understanding of the refuge's role in wildlife and habitat conservation as part of the Refuge System. This activity will not conflict with any of the other priority public uses or adversely impact biological resources. These secondary uses facilitate several of the priority uses (wildlife observation, photography, and interpretation). Therefore, through the compatibility determination process, we have determined that recreation use in San Lorenzo Canyon, in accordance with the stipulations provided above, will not materially interfere with or detract from the fulfillment of the Refuge System mission or the purposes of the refuge.

Signature: Refuge Manager Kathleen Smith 5/17/18
(Signature and Date)

Concurrence: Regional Chief [Signature] 9/27/18
(Signature and Date)

Mandatory 10-year Re-Evaluation Date: _____ 2028

COMPATIBILITY DETERMINATION

USE: Research

REFUGE NAME: Sevilleta National Wildlife Refuge (refuge, NWR)

DATE ESTABLISHED: December 28, 1973

ESTABLISHING AND ACQUISITION AUTHORIT(IES):

16 U.S.C. § 460k-2 - Refuge Recreation Act (16 U.S.C. § 460k-460k-4), as amended;
16 U.S.C. § 742f(a)(4) and 16 U.S.C. § 742f(b)(l) - Fish and Wildlife Act of 1956;

REFUGE PURPOSE(S):

"to preserve and enhance the integrity and the natural character of the ecosystems of the property by creating a wildlife refuge managed as nearly as possible in its natural state, employing only those management tools and techniques that are consistent with the maintenance of a natural ecological process... not to be subjected to commercial exploitation ... and the land and the flora and fauna supported by it be managed to permit the natural ecological successions and processes typical of the area to prevail... and that portions of the property will be made available to educational institutions and conservation organizations... for scientific research and study." Quit Claim Deed, dated December 28, 1973.

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"... 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) (l) (Fish and Wildlife Act of 1956).

NATIONAL WILDLIFE REFUGE SYSTEM MISSION:

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DESCRIPTION OF USE:

What is the use?

Since the 1970s, researchers have been the principal "users" of the Sevilleta NWR. Primary investigators from various research institutions, universities, government agencies, and other

organizations have been issued special use permits (SUPs) to conduct research in various fields including plant and animal ecology, climate, zoonotic disease, geologic mapping, base-line inventory, and numerous others.

In 1988, the refuge agreed to host a Long-Term Ecological Research (LTER) program, funded by the National Science Foundation (NSF) and directed by the University of New Mexico (UNM). Out of 28 LTER programs throughout the United States, the Sevilleta LTER is the only one that partners with a national wildlife refuge. The LTER conducts a variety of research with a dominant theme of examining long-term changes in ecosystem attributes as a result of natural and artificial disturbances. The LTER program's primary goal is to "understand how abiotic pulses and constraints affect species interactions, community structure, and ecosystem processes in arid land ecosystems." This partnership has created a relationship where the research community is allowed access to a unique outdoor laboratory and the refuge has access to the vast knowledge that is provided by the research.

Partially to support LTER functions, UNM operates a research field station adjacent to the refuge headquarters. This field station has housing and dormitories with the capability of housing up to 68 people. There are also several other buildings that include storage areas, a small dry lab, and the laboratory/office/meeting space building. There are currently three different agreements and one permit between the U.S. Fish and Wildlife Service (Service) and UNM for the operation of the LTER program and associated infrastructure and buildings.

Research is allowed through the issuance of SUPs. In a given year, the refuge allows between 75 and 100 different research projects. However, many of these (50 to 65 percent) are directly related to the LTER program. Currently, Sevilleta NWR provides one SUP to the director of the LTER program. All research projects conducted by LTER staff are considered sub-permittees under the main SUP.

Currently, there is no limit on the number of research projects that are permitted in a given year. This research program has continued to grow over the years and with the additional laboratory and housing available at the field station, it is anticipated that more research permits will be forthcoming on an annual basis.

Anyone interested in conducting research on the refuge can submit a research application to be reviewed by a committee designated by the refuge (see the below sections for details).

Where is the use conducted?

Currently, research activities have the potential to occur anywhere on the refuge. The review committee to ensure that the location meets the goals and objectives of the proposed research project assesses the locations of each project. The refuge manager ultimately decides if the proposed site is appropriate for the refuge.

When is the use conducted?

Currently, research activities could be allowed any time of the year. The review committee to ensure that timing meets the goals and objectives of the proposed research project assesses the time of day, frequency, and duration of each project. The refuge manager ultimately decides if the proposed timing is appropriate for the refuge.

How is the use conducted?

Research on the refuge is extremely diverse, and each project requires different materials and procedures. Some of the long-term projects have extensive infrastructure (probes, drought shelters, vegetation markers, warming shelters, etc.), while other projects are surveys that require no infrastructure. Because of the wide diversity of research projects on the refuge, every request requires a SUP that is approved by a review committee.

Currently, a committee comprised of refuge staff, at least one LTER staff person, and other research community members as deemed appropriate and necessary review new research applications twice per year. Modifications of existing research projects are reviewed on a monthly basis. The review committee evaluates each application using the Sevilleta NWR Research Evaluation and Ranking form found in the Refuge's Research Management Plan (revised in February 2007). The review committee discusses each research project in depth to ensure that the project implements sound science, can achieve the project's goal using their proposed methods and is compatible with the Refuge System's mission, the Sevilleta NWR purposes, planning documents (e.g., Refuge Research Plan), and wildlife/habitat management goals. The committee then makes recommendations for the research projects, which are forwarded, to the refuge manager for final approval. The committee's review process is solely to provide recommendations and guidance to the refuge manager. The refuge manager has the final approval for all research applications and permits.

Research applicants are encouraged to contact the refuge office before submitting an application.

In general, research applicants must submit a proposal that outlines:

1. Objectives of the study.
2. Justification for the study.
3. Detailed study methodology and schedule.
4. Potential impacts on refuge wildlife and/or habitat including disturbances (short and long-term), injury, or mortality. This would include a description of measures the researcher will take to reduce disturbances or impacts.
5. Personnel required to complete the study.
6. Status of necessary permits (e.g., scientific collecting permits, endangered species permits, Institutional Animal Care and Use Committee permits).
7. Costs to the refuge and refuge staff time requested to assist directly with the research.
8. Anticipated progress reports and end products.

In addition to the review committee's evaluation process, the refuge manager will include, but not be limited to, the following additional evaluation criteria:

- I. Research that contributes to specific refuge management issues will be given higher priority over other requests.

2. Research that will conflict with other ongoing research, monitoring or management programs will not be approved.
3. Research projects that are not ecologically based and can be conducted off the refuge will likely not be approved.
4. Research that causes undue disturbance would be carefully weighed when evaluating a research request.
5. Research evaluation will determine if any effort has been made to minimize disturbance through study design, including considering adjusting location, timing, scope, number of assistants needed, study methods, number of study sites, etc.
6. If staffing or logistics make it impossible for the refuge to monitor researcher activity in a sensitive area, this may be a reason to deny the request, depending on the specific circumstances.
7. The length of the project will be considered and agreed upon before approval. Long-term projects will be identified at the onset and discussion about who would continue the long-term collection of data should the primary investigator leave.

Why is the use being proposed?

Research has been allowed and encouraged on the refuge at various levels since its establishment in 1973. The refuge's Warranty Deed and Comprehensive Conservation Plan (CCP) addresses research on the refuge. The Deed specifically states that portions of the refuge will be made available to educational institutions and conservation organizations for scientific research and study. This language has formed the direction of research on the refuge.

The refuge is currently permitting a high number of research projects when compared to other national wildlife refuges across the country. Sevilleta NWR is unique to have research mentioned in the establishing documents (Warranty Deed, 1973). This allows the refuge to have a diversity of research projects on the refuge that are "consistent with the regulations and policies of the National Wildlife Refuge System." Many of these projects do not directly relate to the management of the refuge or the habitats and wildlife of the refuge. However, they provide knowledge that can be useful to understanding the natural processes that occur in the habitats that exist on the refuge. These research projects also address larger conservation and climate change issues that can help direct management decisions beyond Sevilleta NWR.

One of the goals in the Sevilleta NWR CCP (approved in 2000) is to "encourage research by bonafide research institutions and individuals, to provide an atmosphere conducive to investigations into environmental processes on the refuge and to assume a proactive role in facilitating research." The plan identifies objectives and strategies geared toward better coordination and communication with the research community to improve the refuge's information and knowledge that will lead to better management of the wildlife and natural resources of the refuge.

On-refuge scientific research benefits include:

1. Information to assist with management of the Sevilleta NWR.
2. Information to assist with management of other NWRs and public lands.
3. Information to assist with the management of threatened and endangered species.
4. Long-term data collection in a "natural state" environment.

5. Graduate student opportunities for research.
6. Teacher and K-12 student opportunities to observe and participate in scientific research.

AVAILABILITY OF RESOURCES:

Current staffing levels are minimally adequate to properly implement this program and properly manage all the other programs at the refuge. If additional research applications were received (more than the current 20 per review committee) resulting in more proposed research projects on the refuge (more than the current 100 annually), additional staff would be needed to administer this program properly. As always, discretionary use of staff time would be weighed through a cost-benefit analysis. It is estimated that the wildlife biologist currently spends 30 to 50 percent of their time administering the research program. Administration includes but is not limited to evaluation of permits, management of permits, oversight of research projects, coordination with LTER staff, coordination with interested researchers, and coordination with permit review committee. The managers and administrative staff as required to administer this program provide additional time.

ANTICIPATED IMPACTS OF THE USE:

Short and Long-term Impacts:

Besides refuge management, the research community is the largest user group of the refuge and researchers are provided access to areas of the refuge usually closed to public access.

Direct impacts occur when research requires manipulation of habitats or climatic conditions (removal/addition of water), collection of samples, handling of wildlife, exclusion of areas through fencing, and habitat degradation due to impacts of infrastructure needed for studies (e.g., water tanks, towers, solar panels, battery boxes, etc.), among numerous other direct impacts.

Indirect impacts occur by the use and presence of the numerous researchers on the refuge. These include roadkill of wildlife, creation of trails to get to research sites, disturbance to wildlife not associated with the research project (e.g., vehicles disturbing pronghorn, researchers flushing birds, etc.), degradation of refuge roads due to the high volume of vehicle use, establishment of "pull-out" areas to accommodate vehicles, and potential introduction of non-native species from vehicles carrying seeds from areas outside the refuge.

Impacts will vary depending on the specifics of each research project (e.g., location, number of visits, field staff needed to conduct a study, etc.). Although there is information available about researcher impacts on their study subjects, as indicated in reviews of literature (Carney et al. 1999; Godfrey and Bryant 2003), there is little information about the impacts that researchers, in general, have on resources within their study area. Although the research community is utilizing the refuge differently than the general public, their presence (e.g., driving roads, heavy use of specific areas, creating of trails) is similar to activities conducted by the general public observing wildlife on a national wildlife refuge.

The establishment of trails by researchers hiking to their study sites will impact soils, vegetation, and in some instances, hydrology around the trails. This could include an increased potential for erosion, soil compaction (Liddle 1975), reduced seed emergence (Cole and Landres 1995), alteration of vegetative structure and composition, and sediment loading in certain locations

(Cole and Marion 1988). Typically, the refuge encourages researchers to establish one path into their study sites, thus concentrating any impacts on one trail or a smaller area.

The presence of researchers can result in direct effects on wildlife through unintentional harassment, which can cause physiological effects, behavior modifications, or in extreme cases, death (Smith and Hunt 1995). Wildlife can be impacted by researcher activities on the refuge when they are disturbed and flushed from feeding, resting, or breeding/nesting areas. Flushing, especially repetitive flushing, can strongly impact habitat use patterns of many wildlife species. Flushing from an area can cause birds and other wildlife to expend more energy, be deterred from using desirable habitat, affect resting or feeding patterns, and increase exposure to predation or cause birds to abandon sites with repeated disturbance (Smith and Hunt 1995). For example, grassland-nesting birds potentially breeding in the vicinity of long-term study sites (e.g., rainout shelters) could repeatedly be flushed from the area.

In some cases, the disturbed wildlife may become accustomed to the presence of the people, and may return to the site once people depart; or, in other cases, wildlife move elsewhere and do not return. A longer-term impact is the alteration of bird distribution and habitat use of areas in close proximity to the research sites, especially during the periods of heaviest use. Typically, at the refuge, the heaviest use occurs from April through September, which is the same time period that fawning and nesting are occurring.

Migratory birds have been observed to be more sensitive to disturbance than resident species (Klein 1989). Nest predation for songbirds (Miller et al. 1998), raptors (Glinski 1976), and waterfowl (Boyle and Samson 1985) tends to increase in areas more frequently visited by people. In addition, for many passerine species, primary song occurrence and consistency can be impacted by a single visitor (Gutzwiller et al. 1994). This could potentially limit the number of breeding pairs of certain passerine species, thus limiting production within refuge habitats where intensive research is on-going (Reijnen and Foppen 1994).

Increased disturbance to wildlife is expected to occur in areas researchers frequent. Given the current number of researchers and research projects, we expect that some areas could be impacted daily, especially during the summer months when researcher activity is at its peak. Disturbance of wildlife occurs from researchers walking to research sites. Birds, reptiles, and mammals have all been observed flushing when exposed to researchers. Vehicular access, while restricted to the roads, allows researchers to cover more ground potentially increasing the number of times an animal is disturbed but may be of shorter duration compared to pedestrian disturbance. In general, birds (and other wildlife) are less likely to be disturbed by vehicles when compared to a person walking (Rodgers 1997). Therefore, researchers could reduce their indirect impacts on wildlife by not stopping to view wildlife and staying in their vehicles until they reach their study site.

Furthermore, the impacts to wildlife caused by researchers moving away from roadways and hiking into study sites may be supported by examining the information available about disturbance caused by wildlife photographers. This user group tends to have the largest disturbance impacts of all wildlife observers (Klein 1993). While wildlife observers frequently stop to view species, wildlife photographers are more likely to approach wildlife (Klein 1993). This would be the case of a researcher approaching their study site with wildlife present at the

site. Even a slow approach tends to have behavioral consequences to wildlife species (Klein 1993). Other impacts include the potential for researchers to remain close to wildlife for extended periods of time while conducting their studies.

The review committee addresses any potential impacts during the review process of each research application. The committee looks for any potential issue and determines if it can be allowed on the refuge. If a research project is accepted, researchers are made aware of and must agree to adhere to all refuge regulations and policies.

The research community also attempts to reduce their impacts on the resources of the refuge. For example, a "wireless cloud" has been established over the most intensively studied area of the refuge. This allows researchers to set out equipment that will automatically collect some of their data. This data can then be downloaded remotely from a computer off-refuge. Even though this increases the infrastructure out on the refuge, this technology reduces the number of researcher visits. Ultimately, this reduces the impacts on the resources (e.g., wildlife disturbances and road degradation).

Cumulative Impacts:

No adverse cumulative effects are expected to result from scientific research occurring on the refuge due to careful review and consideration of research proposals, oversight by refuge staff, and adherence to special conditions identified in SUPs. Ultimately, scientific information adds to a body of knowledge that informs better management decisions. More effective management of refuge resources should result in beneficial cumulative impacts on refuge resources in the long-term.

PUBLIC REVIEW AND COMMENT:

Comments were solicited on the draft Compatibility Determination for this use from June 15 through July 15, 2018, via posting in the Sevilleta NWR visitor center, in local newspapers, and on Sevilleta NWR's website and Facebook page. No comments were received.

DETERMINATION (CHECK ONE BELOW):

Use is not compatible

Use is Compatible with the following stipulations:

STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:

Current and future research will be evaluated on a case-by-case basis to determine if the project supports refuge and Service goals and if the project will be beneficial to refuge purposes. Project-specific stipulations will be defined in individual SUPs.

JUSTIFICATION:

The research program at Sevilleta NWR does have impacts on the landscape, but they are minor when compared to the benefit the data from this research provides to the scientific community and ultimately to resource managers. The research program monitors and keeps track of all research activity on the refuge. This is accomplished by enforcing regulations on the research

community (adherence to the permitting process, speed limits on refuge roads, required annual reporting on each research project, etc.). This ensures that research projects do not cause unnecessary damage to the wildlife or ecosystem of the refuge.

This activity will not conflict with any of the other priority public uses or adversely affect biological resources. Therefore, through the compatibility determination process, we have determined that scientific research, in accordance with the stipulations provided above, will not materially interfere with or detract from the fulfillment of the Refuge System mission or the purposes of the refuge.

Signature: Refuge Manager Kathleen Donnell 8/17/18
(Signature and Date)

Concurrence: Regional Chief [Signature] 9/27/18
(Signature and Date)

Mandatory 10-year Re-Evaluation Date: _____ 2028

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Relevance and benefit of the project

- 1) What is the benefit of this project beyond its scientific merit?

- 2) Is this project relevant to USFWS or Sevilleta NWR?
For example, will this project answer questions or provide information regarding to Sevilleta NWR's purpose of creating a wildlife refuge managed as nearly as possible in its natural state?

YES NO POTENTIAL

Potential impact of the project on Sevilleta NWR

- 1) Will structures be installed for project?

YES NO COMMENTS:

- 2) Will the project disturb or change plant or animal life on the refuge?

YES NO MINIMAL

- 3) If YES to the above question, does this project attempt to protect the plant and wildlife components of the ecosystem from detrimental human intrusion and manipulative research protocols?

YES NO COMMENTS:

- 4) Level of visitation at the research site? Projected duration of project?

- 5) What is the shape and size of the entire area that will be utilized by the project?

- 6) Are the impacts of the project minimal when compared to the scientific benefit this project could provide?

YES NO EXPLAIN:

COMPATIBILITY DETERMINATION

USE: Interpretation

REFUGE NAME: Sevilleta National Wildlife Refuge (refuge, NWR)

DATE ESTABLISHED: December 28, 1973

ESTABLISHING AND ACQUISITION AUTHORIT(IES):

16 U.S.C. § 460k-2 - Refuge Recreation Act (16 U.S.C. § 460k-460k-4), as amended;
16 U.S.C. § 742f(a)(4) and 16 U.S.C. § 742f(b)(1)-Fish and Wildlife Act of 1956;

REFUGE PURPOSE(S):

"to preserve and enhance the integrity and the natural character of the ecosystems of the above property by creating a wildlife refuge managed as nearly as possible in its natural state, employing only those management tools and techniques that are consistent with the maintenance of a natural ecological process." Quit Claim Deed, dated December 28, 1973.

"... suitable for- (1) incidental fish and wildlife-oriented recreational development, (2) the protection of naturalresources, (3) the conservation of endangered species or threatened species..." 16 U.S.C. § 460k-1 "... 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 (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)(1) (Fish and Wildlife Act of 1956)

NATIONAL WILDLIFE REFUGE SYSTEM MISSION:

"The mission of the National Wildlife Refuge System (Refuge System) is to administer a national network of lands and waters for the conservation, management and, where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans" (National Wildlife Refuge System Improvement Act of 1997, Public Law 105-57).

DESCRIPTION OF USE:

What is the use?

Interpretation is an activity that engages visitors by revealing meanings and relationships using objects, firsthand experiences, and illustrative media. Interpretation forges emotional and intellectual connections between the interests of the audience and the inherent meanings in the resource. Personal interpretation occurs through informal interactions and formal programs led by guest presenters, refuge staff, or refuge volunteers. Non-personal interpretation occurs

through visitor use of interpretive exhibits, interpretive panels, interpretive brochures, and self-guided interpretive programs.

Interpretation can incorporate elements of wildlife observation, wildlife photography, and hiking, all of which are public uses of the refuge that are covered by other compatibility determinations.

Where is the use conducted?

Interpretation can occur anywhere throughout the refuge; however, it is most likely to occur in the vicinity of the visitor center, along public hiking trails, and along refuge roads via guided tours.

When is the use conducted?

Interpretation mainly occurs during refuge business hours. The visitor center is open from 8:00 am-4:30 pm Monday-Friday and 9:00 am-4:30 pm on Saturdays (closed Saturdays June-August). The area surrounding the visitor center, including a 3-mile hiking trail with interpretive panels, is open from sunrise to sunset.

How is the use conducted?

The refuge offers a variety of interpretive programs throughout the year. Some examples of programs that occur annually are Celebrate Sevilleta, Butterfly Count, Moth Night, and International Migratory Bird Day Hike. These programs engage visitors by providing mission-based communication services to forge emotional and intellectual connections between the interests of the audience and the meanings inherent to the natural and cultural resources of Sevilleta NWR. Interpretive products include species-specific brochures, interactive kiosks, wayside panels along hiking trails, and visitor center exhibits. Interpretive services include guided tours given by refuge staff, volunteers, Friends group members, and guest presenters. Guided talks consist of walking tours, formal presentations, and staff-led auto tours.

Why is the use being proposed?

Interpretation is a priority public use on Refuge System lands as identified in the National Wildlife Refuge System Improvement Act of 1997. Allowing access to the refuge for interpretation is consistent with the goals of the refuge and the Refuge System.

AVAILABILITY OF RESOURCES:

Direct costs to administer interpretive programs are in the form of staff salaries and time, support for the volunteer program, fuel, and wear and tear on vehicles. In general, no direct purchases are made for interpretive programs. Administering this program involves the need for one full-time visitor services employee and the help of volunteers. Sevilleta has anywhere from 50-60 volunteers who live on-site in recreational vehicles every year that work at least 24 hours per week during their stay. There are also local community members that dedicate time to volunteer at the refuge. Refuge volunteers play a vital role in interpretative programs, by staffing the welcome desk during visitor center hours, greeting and engaging guests that visit the refuge and assisting with various interpretive programs.

Some periodic maintenance is required if improvement is needed on products, trails, roads, vehicles, or interpretative facilities.

The Amigos de la Sevilleta, the refuge's friends group, assists Sevilleta NWR with the administration of interpretive programs.

ANTICIPATED IMPACTS OF THE USE:

Short and Long-term Impacts:

The overall impacts from interpretation to the refuge and wildlife populations would be minimal and short-term. Most interpretive activities will occur at existing facilities, which provide quality opportunities while limiting wildlife and habitat disturbance. These activities are usually predictable in timing (such as daylight hours) and in a given geographical location (such as on a trail). Potential impacts to wildlife and the environment include short-term disturbance, minor soil compaction on existing trails and vegetative impacts in the immediate vicinity of an activity. Disturbances are typically short-term and should only temporarily displace wildlife to adequate habitat nearby. Personal vehicles would utilize developed roads and parking areas to access existing trails. Small groups would conduct self-guided interpretation at established trails and kiosks, which may cause a short-term disturbance with minimal impacts.

During large events, some disturbance to wildlife may occur. Large events usually occur only once a year and are carefully planned to minimize impacts.

Cumulative Impacts:

No adverse cumulative impacts are expected to result from interpretation. Interpretation occurs in conjunction with other wildlife-dependent activities including wildlife observation, environmental education, and photography. Providing an opportunity for people to learn among natural habitats and view native wildlife, offers wide-ranging beneficial impacts to the environment. Although interpretation and associated wildlife-dependent uses may increase over time, the increase is unlikely to be significant enough to cause cumulative impacts. Making interpretation opportunities available on the refuge will raise public awareness about conservation issues and the Refuge System, which will benefit the U.S. Fish and Wildlife Service's overall mission and the purposes of the refuge.

If the demand for interpretive programs increases, refuge management will adjust the frequency of the programs to minimize impacts on wildlife and other resources that may be affected by these programs. If any negative wildlife impacts are detected, adaptive strategies will be developed to reduce disturbance.

PUBLIC REVIEW AND COMMENT:

Comments were solicited on the draft Compatibility Determination for this use from June 15 through July 15, 2018, via posting in the Sevilleta NWR visitor center, in local newspapers, and on Sevilleta NWR's website and Facebook page. No comments were received.

DETERMINATION (CHECK ONE BELOW):

Use is not compatible

Use is Compatible with the following stipulations:

STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:

To ensure compatibility with the Refuge System and the refuge goals and objectives, interpretation can only occur under the following conditions:

1. Visitors are allowed to engage in self-guided interpretive programs at and near the visitor center open to the public between 8:00 am–4:30 pm Monday–Friday and 9:00 am–4:30 pm on Saturdays (closed Saturdays June–August).
2. Visitors are allowed to access the public area around the visitor center from sunrise to sunset, year-round.
3. Visitors are not permitted on the refuge outside of the specified times unless a specific interpretive program allows for additional temporary access.
4. Times, areas, and conditions for interpretive programs may be regulated as necessary. This use is subject to changes under any unusual or critical conditions where refuge resources, wildlife, habitat, or visitor safety may be at risk.
5. Commercial interpretive services are not permitted on the refuge.

JUSTIFICATION:

Interpretation is a priority public use for the Refuge System as outlined in the National Wildlife Refuge System Improvement Act of 1997. This activity will not conflict with any of the other priority public uses or adversely impact biological resources. Therefore, through the compatibility determination process, we have determined that interpretation on the refuge, in accordance with the stipulations provided above, is a compatible use that will not materially interfere with or detract from the fulfillment of the Refuge System mission or the purposes of the refuge.

Signature: Refuge Manager Kathleen Brantley 8/17/18
(Signature and Date)

Concurrence: Regional Chief [Signature] 9/27/18
(Signature and Date)

Mandatory 15-year Re-Evaluation Date: _____ 2033 _____

COMPATIBILITY DETERMINATION

USE: Special Events

REFUGE NAME: Sevilleta National Wildlife Refuge (refuge, NWR)

DATE ESTABLISHED: December 28, 1973

ESTABLISHING AND ACQUISITION AUTHORIT(IES):

16 U.S.C. § 460k-2 - Refuge Recreation Act (16 U.S.C. § 460k-460k-4), as amended;
16 U.S.C. § 742f(a)(4) and 16 U.S.C. § 742f(b)(1)-Fish and Wildlife Act of 1956;

REFUGE PURPOSE(S):

"to preserve and enhance the integrity and the natural character of the ecosystems of the property by creating a wildlife refuge managed as nearly as possible in its natural state, employing only those management tools and techniques that are consistent with the maintenance of a natural ecological process... not to be subjected to commercial exploitation ... and the land and the flora and fauna supported by it be managed to permit the natural ecological successions and processes typical of the area to prevail... and that portions of the property will be made available to educational institutions and conservation organizations... for scientific research and study." Quit Claim Deed, dated December 28, 1973.

"... 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-1 "... 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 (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 (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.

DESCRIPTION OF USE:

What is the use?

Once a year, the Amigos de la Sevilleta and refuge staff host an all-day event that combines several family-oriented activities with the Drawn to Sevilleta Poster Contest Awards. The refuge

anticipates about 200 visitors for this event. It will be an opportunity for the public (mainly families) to participate in activities that will expose them to learning about the natural world, observing wildlife and plants, and experiencing interpretation talks, programs, and tours. It will also be the day that the refuge honors the winners of the Drawn to Sevilleta poster contest. This contest has been held for several years, with about 100 local elementary schools participating. On average, about 400 students submit posters to the contest, and 18 winners are selected.

Where is the use conducted?

Talks, programs, and tours during the event occur mostly in and around the visitor center. The event will include guided hikes on the trails around the visitor center and other activities such as archery and Wildlife Olympics held in open areas adjacent to the headquarters and shop areas. The poster contest award ceremony will be held in the refuge conference room.

When is the use conducted?

This is a one-day annual event usually held in the fall, lasting approximately eight hours.

How is the use conducted?

Visitors can choose to participate in the various activities offered by staff, volunteers, Amigos de la Sevilleta members, and volunteer naturalists. The poster contest winners and their families receive invitations to the awards ceremony, and all event attendees are welcome to observe the awards ceremony.

Why is the use being proposed?

All activities are priority public uses on Refuge System lands as identified in the National Wildlife Refuge System Improvement Act of 1997. Allowing access to the refuge for priority public uses is consistent with the goals of the refuge and the Refuge System.

This event is aimed at reaching local families in Socorro and Valencia Counties to raise awareness of the refuge, the Refuge System, and conservation. Offering a wide variety of activities that are accessible to all age groups is especially appealing to local multigenerational family groups.

AVAILABILITY OF RESOURCES:

Currently, the refuge staff of five people, including one visitor services manager, along with members of the Amigos de la Sevilleta, and other volunteers are adequate to staff the event. Amigos de la Sevilleta members, refuge volunteers, refuge and other U.S. Fish and Wildlife Service staff, and partner agencies and organizations lead talks, programs, and tours. Almost exclusively refuge volunteers maintain trails.

ANTICIPATED IMPACTS OF THE USE:

Short and Long-term Impacts:

Impacts of the use are generally positive, including increased public awareness and appreciation of natural resources, and increased involvement and support from local communities.

Expected levels of wildlife observation, wildlife photography, and interpretative activities offered at this event are believed to disturb wildlife and vegetation minimally. Some wildlife

disturbance is expected as visitors explore trails and enjoy tours. Soil impacts from trail use are also believed to be minimal. Some trail erosion and soil compaction are to be expected on portions of marked trails.

Cumulative Impacts:

No cumulative impacts are expected.

PUBLIC REVIEW AND COMMENT:

Comments were solicited on the draft Compatibility Determination for this use from June 15 through July 15, 2018, via posting in the Sevilleta NWR visitor center, in local newspapers, and on Sevilleta NWR's website and Facebook page. No comments were received.

DETERMINATION (CHECK ONE BELOW):

Use is not compatible

Use is Compatible with the following stipulations:

STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:

To ensure compatibility with refuge and Refuge System goals and objectives, wildlife observation can only occur under the following conditions:

- I. Wildlife disturbance is reduced by only allowing visitors on existing roads and trails, and by staff and volunteer management of participants on guided tours and programs.
2. Trail erosion is managed by routine trail maintenance. Soil compaction and related erosion occurs throughout the trail system and is minimized in some portions by hard-packed stone dust trail surfacing.
3. Participants of the event must follow all refuge rules and regulations.
4. The use is subject to changes under any unusual or critical conditions where refuge resources, wildlife, habitat, or visitor safety may be at risk.

JUSTIFICATION:

Wildlife observation, wildlife photography, and interpretive activities offered at this event do not materially interfere with or detract from the fulfillment of the Refuge System mission or Sevilleta NWR's purposes. Wildlife observation, wildlife photography, and interpretation are "Big 6" priority general public uses on national wildlife refuges as identified in the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997. At current levels, these activities cause minimal wildlife disturbance, which is further minimized by restricting visitors to designated roads and trails. Vegetation and soil impacts are minimized by the use of marked trails, regular trail maintenance, and visitor management on guided tours and programs. Positive impacts of priority public uses include increased public awareness and appreciation of natural resources and increased involvement and support from local communities.

Signature: Refuge Manager Kathleen Smith 8/17/18
(Signature and Date)

Concurrence: Regional Chief [Signature] 9/12/18
(Signature and Date)

Mandatory 10-year Re-Evaluation Date: 2033

COMPATIBILITY DETERMINATION

USE: Wildlife Photography

REFUGE NAME: Sevilleta National Wildlife Refuge (refuge, NWR)

DATE ESTABLISHED: December 28, 1973

ESTABLISHING AND ACQUISITION AUTHORIT(IES):

16 U.S.C. § 460k-2 - Refuge Recreation Act (16 U.S.C. § 460k-460k-4), as amended;
16 U.S.C. § 742f(a)(4) and 16 U.S.C. § 742f(b)(l)- Fish and Wildlife Act of 1956;

REFUGE PURPOSE(S):

"to preserve and enhance the integrity and the natural character of the ecosystems of the property by creating a wildlife refuge managed as nearly as possible in its natural state, employing only those management tools and techniques that are consistent with the maintenance of a natural ecological process... not to be subjected to commercial exploitation ... and the land and the flora and fauna supported by it be managed to permit the natural ecological successions and processes typical of the area to prevail... and that portions of the property will be made available to educational institutions and conservation organizations... for scientific research and study." Quit Claim Deed, dated December 28, 1973.

" ... 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-1 "... 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 (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 (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.

DESCRIPTION OF USE:

What is the use?

Wildlife photography is an existing wildlife-dependent recreational use on Sevilleta NWR and is one of the most popular public uses on the refuge. Visitors take advantage of excellent

opportunities to photograph unique southwestern species, including raptors, rattlesnakes, elk, waterfowl, and the American pronghorn.

Where is the use conducted?

Approximately 350 acres, including 5 miles of marked trails, are open to visitors at the visitor center, the wetland units, and San Lorenzo Canyon, with public access limited to designated roads and trails. A trail map is available at the visitor center and on the refuge website. Additionally, refuge staff hosts monthly tours and other guided opportunities throughout the refuge. These tours are advertised via an email listserv, posted on the refuge website and Facebook page, as well as posted at the visitor center. The refuge also sends out a quarterly news release to local newspapers. Some tours and programs are specifically oriented towards providing photography opportunities.

San Lorenzo Canyon is owned in part by both the U.S. Fish and Wildlife Service (Service) and the Bureau of Land Management and is managed jointly by both agencies. Joint management is addressed in a separate Compatibility Determination (CD) and newly revised Memorandum of Agreement.

When is the use conducted?

Refuge trails are open from sunrise to sunset. During visitor center hours, visitors park at the visitor center for trail access. The visitor center is open from 8:00 am-4:30 pm Monday-Friday and 9:00 am-4:30 pm Saturdays (closed Saturdays June-August). Outside of visitor center hours, the front gate is closed, and visitors must park at the refuge entrance gate parking area and walk a trail to the visitor center and trailheads.

How is the use conducted?

Visitors photograph natural resources near the visitor center, the wetland units, and San Lorenzo Canyon from sunrise to sunset, year-round. Volunteer naturalists and other volunteers often host additional and varied wildlife photography opportunities throughout the year.

Why is the use being proposed?

Wildlife photography is a priority public use on Refuge System lands as identified in the National Wildlife Refuge System Improvement Act of 1997. Allowing entry to the refuge for wildlife photography is consistent with the goals of the refuge and the Refuge System. This activity will increase the visitors understanding and appreciation of wildlife.

AVAILABILITY OF RESOURCES:

Currently, the refuge staff of five people, including one visitor services manager, is adequate to offer monthly tours/programs from September through May. Amigos de la Sevilleta members, volunteer naturalists, and refuge volunteers assist with scheduled programs and present additional programs with minimal staff support. Almost exclusively refuge volunteers maintain trails. The refuge's wage grade professional handles tour vehicle maintenance with assistance from volunteers.

ANTICIPATED IMPACTS OF THE USE:

Short and Long-term Impacts:

Wildlife photography can cause minor short-term disturbance to wildlife and habitat. Most animals become accustomed to people on hiking trails and around the visitor center. Allowing visitors to hike trails may result in some soil compaction, erosion, trampling of vegetation, littering, and disturbance to wildlife. These impacts would be minor.

Wildlife photography can have beneficial impacts to the refuge, including increased public awareness and appreciation of natural resources, and increased involvement and support from local communities.

Cumulative Impacts:

No adverse cumulative impacts are expected to result from wildlife photography. Ultimately, this activity will add to public use opportunities on the refuge, which will result in beneficial cumulative impacts. Providing wildlife photography opportunities on the refuge will increase public awareness about conservation issues and the Refuge System, which will benefit the Service's overall mission and the purposes of the refuge.

PUBLIC REVIEW AND COMMENT:

Comments were solicited on the draft CD for this use from June 15 through July 15, 2018, via posting in the Sevilleta NWR visitor center, in local newspapers, and on Sevilleta NWR's website and Facebook page. No comments were received.

DETERMINATION (CHECK ONE BELOW):

Use is not compatible

X=-_ Use is Compatible with the following stipulations:

STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:

To ensure compatibility with refuge and Refuge System goals and objectives, wildlife photography can only occur under the following conditions:

- I. Seasonal closures in sensitive areas will be enforced as needed to reduce wildlife disturbance through staff and volunteer management of participants on guided tours and programs.
2. Trail erosion is managed by routine trail maintenance. Soil compaction occurs throughout the trail system and is minimized in some portions by hard-packed stone dust trail surfacing.

JUSTIFICATION:

Wildlife photography is one of the "Big 6" priority general public uses on national wildlife refuges as identified in the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997. This activity will not conflict with any of the other priority public uses or adversely impact biological resources. Therefore, through the compatibility determination process, we have determined that wildlife

photography, in accordance with the stipulations provided above, will not materially interfere with or detract from the fulfillment of the Refuge System's mission or the purposes of the refuge.

Signature: Refuge Manager Kathleen Smith 8/17/18
(Signature and Date)

Concurrence: Regional Chief [Signature] 9/27/18
(Signature and Date)

Mandatory 15-year Re-Evaluation Date: 2033

COMPATIBILITY DETERMINATION

USE: Wildlife Observation

REFUGE NAME: Sevilleta National Wildlife Refuge (refuge, NWR)

DATE ESTABLISHED: December 28, 1973

ESTABLISHING AND ACQUISITION AUTHORIT(IES):

16 U.S.C. § 460k-2 - Refuge Recreation Act (16 U.S.C. § 460k-460k-4), as amended;

16 U.S.C. § 742f(a)(4) and 16 U.S.C. § 742f(b)(1) - Fish and Wildlife Act of 1956;

REFUGE PURPOSE(S):

"to preserve and enhance the integrity and the natural character of the ecosystems of the property by creating a wildlife refuge managed as nearly as possible in its natural state, employing only those management tools and techniques that are consistent with the maintenance of a natural ecological process... not to be subjected to commercial exploitation ... and the land and the flora and fauna supported by it be managed to permit the natural ecological successions and processes typical of the area to prevail ... and that portions of the property will be made available to educational institutions and conservation organizations... for scientific research and study." Quit Claim Deed, dated December 28, 1973.

"... 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-1 "... 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 (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 (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.

DESCRIPTION OF USE:

What is the use?

Wildlife observation is a popular wildlife-dependent priority public use at Sevilleta NWR, with 6,250 visits recorded for Fiscal Year 2016. Wildlife observation encompasses the act of spotting, listening to, and watching wildlife. Visitors attempt to view wildlife in various habitat types throughout the refuge.

Where is the use conducted?

Approximately 350 acres, including 5 miles of marked trails, are open to visitors at the visitor center, the wetland units, and San Lorenzo Canyon, with public access limited to designated roads and trails. A trail map is available at the visitor center and on the refuge website. Additionally, refuge staff hosts monthly tours and other guided opportunities throughout the refuge, including many areas that generally have restricted public access. These tours are advertised via an email listserv, posted on the refuge website and Facebook page, as well as posted at the visitor center. The refuge also sends out a quarterly news release to local newspapers.

San Lorenzo Canyon is owned in part by both the U.S. Fish and Wildlife Service (Service) and the Bureau of Land Management and is managed jointly by both agencies. Joint management is addressed in a separate Compatibility Determination (CD), and in a newly revised Memorandum of Agreement.

When is the use conducted?

Refuge trails are open from sunrise to sunset. During visitor center hours, visitors park at the visitor center for trail access. The visitor center is open from 8:00 am--4:30 pm Monday-Friday and 9:00 am--4:30 pm Saturdays (closed Saturdays June-August). Outside of visitor center hours, the front gate is closed, and visitors must park at the refuge entrance gate parking area and walk up the entrance road to the trailheads. Pets on a leash and under control are permitted on all refuge trails.

How is the use conducted?

Visitors look for wildlife near the visitor center, the wetland units, and San Lorenzo Canyon from sunrise to sunset, year-round. Amigos de la Sevilleta, volunteer naturalists, and other volunteers often host additional and varied wildlife observation opportunities throughout the year such as Moth Night, Wetland Tour via Horseback, and the Annual Butterfly Count. Refuge tours and guided opportunities are conducted by foot, vehicle, horseback, and occasionally, bicycle.

Why is the use being proposed?

Wildlife observation is a priority public use on Refuge System lands as identified in the National Wildlife Refuge System Improvement Act of 1997. Allowing access to the refuge for wildlife observation is consistent with the goals of the refuge and the Refuge System.

AVAILABILITY OF RESOURCES:

Currently, the refuge staff of five people, including one visitor services manager, is adequate to offer monthly wildlife observation tours/programs from September through May. Amigos de la Sevilleta members, volunteer naturalists, and refuge volunteers assist with scheduled programs

and present additional programs with minimal staff support. Almost exclusively refuge volunteers maintain trails. The refuge's wage grade professional manages tour vehicle maintenance with assistance from volunteers.

ANTICIPATED IMPACTS OF THE USE:

Short and Long-term Impacts:

Wildlife observation can cause minor short-term disturbance to wildlife and habitat. Most animals become accustomed to people on hiking trails and around the visitor center. Allowing visitors to hike trails may result in some soil compaction, erosion, trampling of vegetation, littering, and disturbance to wildlife. These impacts would be minor.

Wildlife observation can have beneficial impacts on the refuge, including increased public awareness and appreciation of natural resources, and increased involvement and support from local communities.

Horseback riding as a method of travel could potentially introduce invasive species to the refuge via horse droppings. The refuge staff regularly inspect and treat roadways and trails for invasive species. Horseback riding and cycling as methods of travel do not have any additional anticipated impacts, as horseback riding and cycling are only permitted on maintained roadways and staff or volunteer-guided tours/programs.

Cumulative Impacts:

No adverse cumulative impacts are expected to result from wildlife observation. Ultimately, this activity will add to public use opportunities on the refuge, which will result in beneficial cumulative impacts. Making wildlife observation opportunities available on the refuge will increase public awareness about conservation issues and the Refuge System, which will benefit the Service's overall mission and the purposes of the refuge.

PUBLIC REVIEW AND COMMENT:

Comments were solicited on the draft CD for this use from June 15 through July 15, 2018, via posting in the Sevilleta NWR visitor center, in local newspapers, and on Sevilleta NWR's website and Facebook page. No comments were received.

DETERMINATION (CHECK ONE BELOW):

Use is not compatible

Use is Compatible with the following stipulations:

STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:

To ensure compatibility with refuge and Refuge System goals and objectives, wildlife observation can only occur under the following conditions:

1. Wildlife disturbance is reduced by enforcing seasonal closures in sensitive areas as needed, and by staff and volunteer management of participants on guided tours and programs. Seasonal closures are determined as necessary by refuge staff, in consultation

