

Appendix A

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Appendix A-1

Waterfowl Hunting Compatibility Determination

Sonny Bono Salton Sea National Wildlife Refuge

Compatibility Determination **(Draft, January 2013)**

Use: Waterfowl Hunting

Refuge Name: Sonny Bono Salton Sea National Wildlife Refuge

Establishing and Acquisition Authorities:

The Sonny Bono Salton Sea National Wildlife Refuge, located in Imperial County, California was established on November 25, 1930 by Executive Order 5498. Subsequent acquisitions were established by the Migratory Bird Conservation Act (16 U.S.C. § 715d), the Lea Act of 1948 (16 U.S.C. § 695), and the Fish and Wildlife Act of 1956 (16 U.S.C. 742a-742j).

Refuge Purposes:

For lands acquired under the Executive Order 5498 in 1930, the purpose of the acquisition is ". . . as a refuge and breeding ground for birds and wild animals;"

For lands acquired under the Migratory Bird Treaty Act (16 U.S.C., Section 715d), the purpose is ". . . for use as an inviolate sanctuary, or for any other management purpose for migratory birds;"

For lands acquired by the Lea Act of 1948 (16 U.S.C. § 695), the purpose is ". . . for the management and control of migratory waterfowl and other wildlife;" and

For the lands leased from the State of California, Department of Fish and Game acquired under the Fish and Wildlife Act of 1956 (16 U.S.C. 742a-742j), the purpose is ". . . primarily for the production of crops to provide wintering feed for waterfowl and to aid and assist in the control of depredation by waterfowl to commercial crops in the area."

National Wildlife Refuge System Mission:

The mission of the National Wildlife 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 Administration Act of 1966, as amended [16 U.S.C. 668dd-668ee]).

Description of Use:

Hunting is identified in the National Wildlife Refuge System Improvement Act of 1997 (16 U.S.C. 668dd-ee) as a priority use for refuges when it is compatible with the refuge purposes and mission of the Refuge System. As a result, the Service is proposing to continue its current waterfowl hunting program which occurs on approximately 480 acres in Unit 2 of the Sonny Bono Salton Sea NWR (Figure 1).

The Refuge's hunting program provides high quality, safe, and cost-effective hunting opportunities, and is carried out consistent with State regulations. The guiding principles of the Refuge System's hunting programs (Service Manual 605 FW 2) are to manage wildlife populations consistent with Refuge System-specific management plans approved after 1997 and, to the extent practicable, State fish and wildlife conservation plans; to promote visitor understanding of and increase visitor appreciation for America's natural resources; to provide opportunities for quality recreational experiences; to encourage participation in this tradition deeply rooted in America's natural heritage and conservation history; and to minimize conflicts with visitors participating in other compatible wildlife-dependent recreational activities.

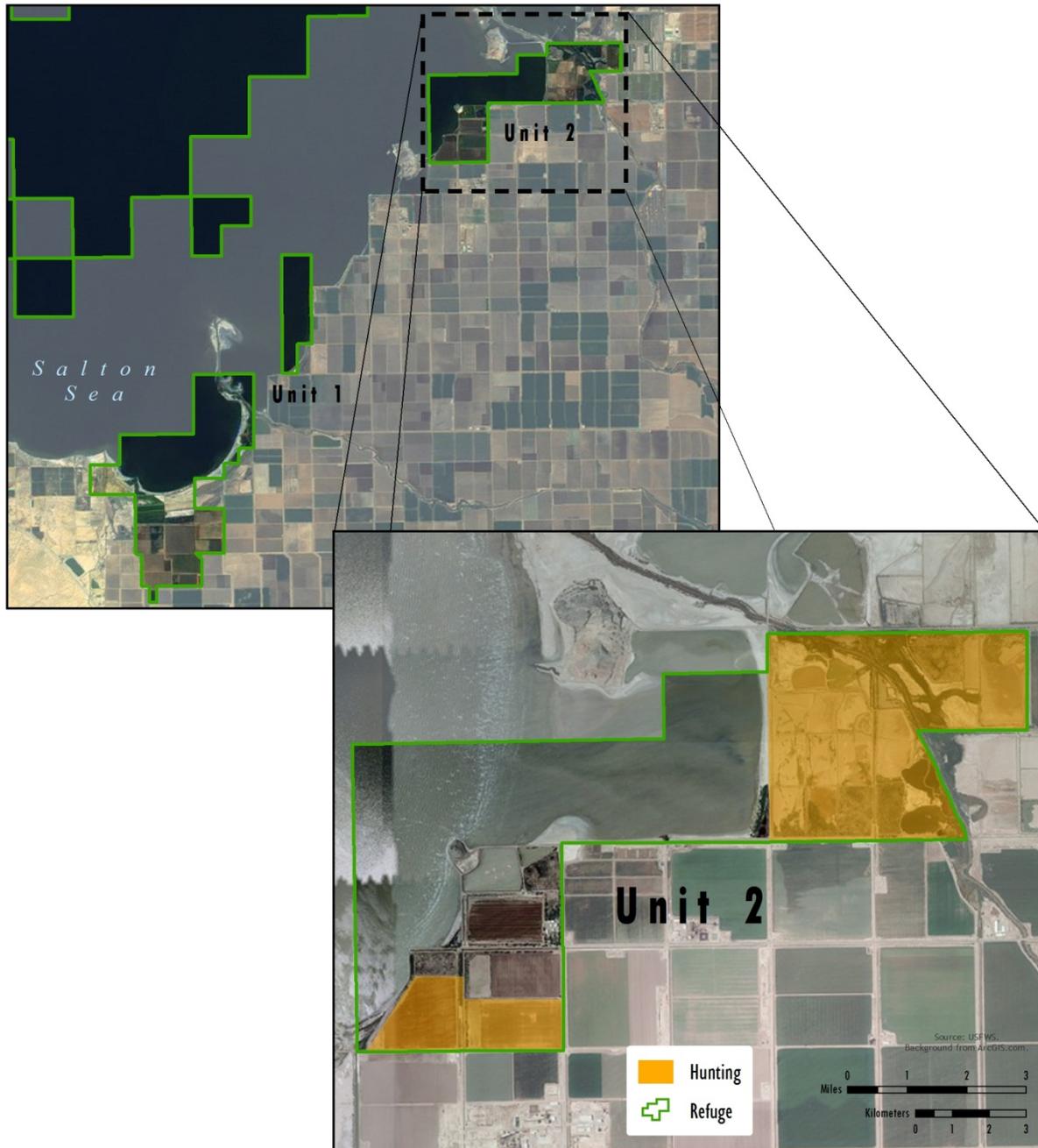


Figure 1. Hunting Areas on the Sonny Bono Salton Sea NWR

The Refuge’s hunt program is conducted pursuant to Title 50, Section 32.1 of the Code of Federal Regulations and managed in accordance with Service Manual 605 FW2. Hunting is and will continue to be permitted in accordance with State regulations and seasons for waterfowl, American coot (*Fulica americana*), and common gallinule (also referred to as a common moorhen) (*Gallinula chloropus*). Table 1 provides an example of annual State hunt seasons for areas within the Refuge.

Table 1
Hunting Season and Bag and Possession Limits for 2012-2013
on the Sonny Bono Salton Sea NWR

Species	Dates	Limits
Waterfowl – Ducks Including but not limited to: Mallard (<i>Anas platyrhynchos</i>) Northern Pintail (<i>Anas acuta</i>) Canvasback (<i>Aythya valisineria</i>) Redhead (<i>Aythya americana</i>) Lesser Scaup (<i>Aythya affinis</i>) Greater Scaup (<i>Aythya marila</i>)	From Oct 20 to Jan 27 on Saturdays, Sundays, and Wednesdays only	Daily Bag Limit: 7 ducks total with no more than: - 2 female mallards, - 2 pintails (either sex) - 1 canvasback (either sex) - 2 redheads (either sex) - 7 scaup (either sex) Possession Limit: double the daily bag limit
Waterfowl – White Geese Ross’s Goose (<i>Chen rossii</i>) Snow Goose (<i>Chen caerulescens</i>)	From Nov 3 to Jan 27 on Saturdays, Sundays, and Wednesdays only	Daily Bag Limit: 6 Possession Limit: double the daily bag limit
American Coot (<i>Fulica americana</i>) and Common Gallinule (Moorhen) (<i>Gallinula chloropus</i>)	From Oct 20 to Jan 27 on Saturdays, Sundays, and Wednesdays only	Daily Bag Limit: 25, either all of one species or a mixture of these species Possession Limit: 25
Black Brant (<i>Branta bernicla</i>)	From Nov 10 through Dec 9 on Saturdays, Sundays, and Wednesdays only	Daily Bag Limit: 2 Possession Limit: double the daily bag limit
Youth Waterfowl Hunting Days (for youth 15 years of age or younger, accompanied by a non-hunting adult 18 years of age or older)	The Saturday and Sunday following the closing of waterfowl season	Daily Bag Limit and Possession Limit Same as Regular Season

Hunters must register and acquire a permit from the Imperial Wildlife Area’s Wister Unit check station prior to entering the Refuge’s designated parking areas. The kill record portion of the permit must be carried at all times, and filled out and returned to the check station immediately after leaving the hunt area. All equipment is carried in and out each day. Currently, 22 spaced blinds are available, three of which are universally accessible. Eighteen of the blind sites are in traditional duck pond habitats on the Hazard Tract. The remaining four blinds are in the Union Tract in agricultural fields planted with crops intended to provide forage for wintering geese. Other than the accessible blinds, the remaining blinds, with the exception of sites H12 and H13, are concrete pit blinds large enough to accommodate two hunters per blind with two blinds per site.

Hunting is only permitted on the Refuge in designated areas and hunters are required to park in the numbered parking space corresponding to the blind or assigned pond they are going to hunt. The area is open for waterfowl hunting on Wednesdays, Saturdays and Sundays, and a total of 80 hunters can be accommodated per hunting day. Up to four hunters may apply on an application (except for H12 and H13, which are limited to two hunters per site). Each hunting party may bring up to two junior hunters. A separate drawing is conducted for the three universally

accessible blind sites. Non-reserved blinds are available on a first come first serve basis to all hunters. Field checks by Federal wildlife officers will be planned, conducted, and coordinated with Refuge staff and other agencies to maintain compliance with regulations and assess species and numbers harvested.

The use of retrieving dogs is permitted and encouraged in all areas open to waterfowl hunting. These dogs must be kept on a leash, except when engaged in authorized hunting activities, at which time they must be under the immediate control of a licensed hunter. Any hunter who allows his/her dog to disturb wildlife is not well received by other hunters who do not want waterfowl disturbed on the ponds that they are hunting. When present, game wardens and Federal wildlife officers will enforce regulations requiring owners to maintain control over their dogs while on the Refuge. Although the use of dogs is not a form of wildlife-dependent recreation; they do in this case support a priority wildlife-dependent use.

Availability of Resources:

Direct costs to administer the hunt program on the Sonny Bono Salton Sea NWR are primarily in the form of staff time. The day-to-day administration of the hunt program during the hunting season is implemented by the California Department of Fish and Wildlife (CDFW) through a Cooperative Agreement. Refuge staff communicates with CDFW about the hunting conditions at the various blinds within the Refuge, and provides updates on any changes in blind conditions that may occur throughout the season. The Refuge is responsible for checking and emptying parking lot trash cans and paying for a sanitation company to pump out the portable toilets that are provided at each parking lot during the hunt season. Outside of the hunt season, staff develop habitat in the wetlands where the blinds are located, work with volunteers to clean blinds, replace directional signs, and, as necessary, maintain access roads and parking lots. Approximately \$50,000 is spent each year to maintain this program. The Refuge currently has adequate funding and staff to manage the hunt program.

The Refuge does not currently have a full time Federal wildlife officer on staff, but the Refuge does receive assistance from the Southern California Federal Wildlife Zone Officer, who periodically monitors activities within the hunting areas to ensure compliance with applicable regulations. As part of the planning process for the Complex's Comprehensive Conservation Plan, the Refuge Complex has identified the need for a full time Federal wildlife officer to address a range of enforcement issues at both Refuges within the Complex. The addition of an on-site Federal wildlife officer would enable the Refuge to conduct regular monitoring of the hunt program, ensuring compliance with applicable regulations and allowing for a better assessment of species and numbers harvested during the season.

Anticipated Impacts of the Use:

Direct effects of hunting include mortality, wounding, and disturbance of target and non-target species (*De Long 2002*). Hunting can alter behavior (e.g., foraging time), population structure, general health (e.g., weight loss), and distribution patterns of all wildlife within the hunt area (Owens 1977, Raveling 1979, White-Robinson 1982, Thomas 1983, Bartelt 1987, Madsen 1985, Cole and Knight 1990).

The level of disturbance associated with hunting can be high due to the loud noises produced by shotguns and the rapid movement of both hunters and hunting dogs within the hunt area. This disturbance, especially when repeated over a period of time, compels waterfowl and other species to change foraging habits (e.g., foraging at night) or abandon areas of disturbance (Madsen 1995,

Wolder 1993). In fact, studies indicate that prolonged and extensive disturbances can cause large numbers of waterfowl to leave disturbed areas and migrate elsewhere (Madsen 1995, Paulus 1984).

Various studies indicate an inverse relationship between the numbers of birds using an area and hunting intensity (DeLong 2002). In Connecticut, lesser scaup were observed to forage less in areas that were heavily hunted (Cronan 1957). In California, the numbers of northern pintails on Sacramento Refuge non-hunt areas increased after the first week of hunting and remained high until the hunting season was over (Heitmeyer and Raveling 1988). Following the close of hunting season, ducks generally increased their use of the hunt area on the Refuge, but use of this area was lower than before the hunting season began.

Impacts to waterfowl and other species can be reduced by providing adjacent sanctuary areas where hunting does not occur and where birds can feed and rest relatively undisturbed. Sanctuaries or non-hunt areas have been identified as the most common solution to disturbance problems caused from hunting (Havera et. al 1992). In Denmark, hunting disturbance effects were experimentally tested by establishing two sanctuaries (Madsen 1995). Over a 5-year period, these sanctuaries became two of the most important staging areas for coastal waterfowl. Numbers of dabbling ducks and geese increased four to 20 fold within the sanctuary (Madsen 1995). Thus, non-hunt areas are very important to waterfowl populations subject to hunting as they ensure the continued presence of the affected species within the general vicinity of the hunt area.

Intermittent hunting can also be a means of minimizing disturbance, especially if rest periods in between hunting events are weeks rather than days (Fox and Madsen 1997). It is common for refuges to manage hunt programs with non-hunt days. At Sacramento Refuge, three to 16 percent of northern pintails were located on hunted units during non-hunt days, but were almost entirely absent in those same units on hunt days (Wolder 1993). In addition, northern pintails, American wigeons (*Anas americana*), and northern shovelers reduced time spent feeding on days when hunting occurred on public shooting areas, as compared to non-hunt days (Heitmeyer and Raveling 1988). Although the intermittent hunting program of three hunt days per week at Sacramento Refuge resulted in lower pintail densities on hunt areas during non-hunt days than non-hunt areas (Wolder 1993), they continued to be present on the Refuge. The hunt program on the Sonny Bono Salton Sea NWR is implemented in a similar manner, with hunting only permitted on Wednesdays, Saturdays, and Sundays during the hunting season. In addition, large areas of undisturbed suitable foraging and resting habitat are set aside on Refuge to support waterfowl and other migratory birds.

Potential Effects to Target Species. The hunting of waterfowl in the United States is based upon a thorough regulatory setting process that involves numerous sources of waterfowl population and harvest monitoring data. In recent years, California hunter's estimated harvest has been about 1.5 million ducks, which totals approximately 12 percent of the estimated U.S. harvest of 12.3 million, and 55 percent of the Pacific Flyway's 2.65 million harvest estimates (USFWS 2007). Comparative numbers for estimated goose harvest yield percentages of 4.1 percent and 33 percent of the U.S. and Pacific Flyway totals, respectively. The harvest of ducks and geese on the Sonny Bono Salton Sea NWR is well below .001 percent of the estimated harvest within the Pacific Flyway. The average harvest of coot on the Refuge between 1999/2000 and 2011/2012 hunting seasons is 24, which represents less than 0.1 percent of the harvest in 2009 and 2010.

Based on the estimated harvest numbers for the Refuge over the years, the Service believes that the continuation of waterfowl hunting on the Sonny Bono Salton Sea NWR will not have a significant impact on local, regional, or Pacific Flyway duck, goose, coot, or common gallinule populations. Additional analysis is provided Chapter 5 of the draft Sonny Bono Salton Sea NWR Complex Comprehensive Conservation Plan and Environmental Assessment (USFWS 2013).

To minimize the effects of disturbance on hunted and non-hunted species, large areas of the Refuge are closed to hunting and other public uses to provide relatively undisturbed areas for birds and other wildlife to forage and rest. In addition, hunting is only permitted on Saturday, Sunday, and Wednesday during the hunting season, giving all wildlife on the Refuge a respite from the effects of hunting during the hunting season.

Potential Effects to Non-Target Species. Waterfowl hunting on the Refuge can result in direct and indirect adverse effects to non-hunted wildlife ranging from mortality and wounding to disturbance (DeLong 2002). Field checks of the Hazard Tract at the end of hunt days has result in the discovery of dead shorebirds, unintentionally or intentionally shot during the course of the hunting day. Although the loss of non-target species is documented annually on the Refuge, the number of non-target species lost is low and does not represent a significant adverse effect to non-target species.

Non-target species are subject to the same disturbance levels as targeted species. To minimize these impacts, quality foraging and loafing habitat is provide elsewhere on the Refuge that is not subject to hunting. These lands, which include areas adjacent to permitted hunt areas and all of the habitat areas within Unit 1, allow birds and other wildlife to feed and rest relatively undisturbed (Havera et al. 1992). These protected areas provide sanctuary for waterfowl, coots, and common gallinules, and the managed agricultural lands in Unit 1 provide alternative foraging areas for geese.

Potential Effects to Listed and Sensitive Species. The hunting activities occurring on the Refuge are unlikely to pose more than a negligible impact to the listed species. Habitat for the federally endangered Yuma clapper rail (*Rallus longirostris yumanensis*) does occur in the vicinity of the hunting blinds on the Hazard Tract, and therefore could be subject to some disturbance as a result of shotgun blasts. This disturbance is minimized by the presence of dense cattail vegetation within the rail habitat. In addition, hunters are not permitted to enter the rail habitat, and no hunting is permitted during the rail's breeding season.

The potential for impacts to other listed species, primarily the desert pupfish (*Cyprinodon macularius macularius*), which may be present on the Refuge during hunting season, is very low because there is little if any suitable habitat for these species in proximity to designated hunt areas.

Potential Conflicts with Other Wildlife-Dependent Recreational Uses. Conflicts between hunting and other public uses on the Refuge have been minimized in the past by physically separating non-hunting and hunting areas to spatially divide the activities. This practice would continue with the exception of a new birding trail proposed on the Hazard Tract, a designated hunting area. To avoid any conflicts between the two uses, the new birding trail will only be opened for use outside of the hunting season.

Other measures implemented to avoid conflicts include:

- Maintaining boundary and hunting area signs to clearly define the designated hunting areas.
- Restricting all vehicle traffic on the Refuge to designated roads and parking areas.
- Permitting only pedestrian hunter access to hunting areas, with the exception of allowing pick up and drop off of disabled hunters at accessible blind locations.
- Implementing periodic field checks of hunting areas to monitoring activities and maintain compliance with all applicable regulations.
- Providing information about hunting regulations pertinent to the Refuge, where and when hunting occurs on the Refuge, and when associated trails are available for public use, by maintaining and updating signs and kiosks, producing and distributing brochures, and updating the Refuge's website (www.fws.gov/saltonsea).
- Prohibiting camping and overnight parking on the Refuge.

Public Review and Comment:

The hunting program implemented on the Sonny Bono Salton Sea NWR was addressed during the public scoping process for the Sonny Bono Salton Sea NWR Complex Comprehensive Conservation Plan (CCP). To initiate the CCP process, a Notice of Intent was published in the Federal Register on October 15, 2010 (65 FR 39172). At that time, written comments were solicited. In September 2010, two scoping meetings were held, one in Palm Desert and one in Calipatria, to receive input from the public on issues related to the future management of the Sonny Bono Salton Sea and Coachella Valley NWRs. Approximately 20 people attended the scoping meeting held in Palm Desert and 10 people attend the scoping meeting in Calipatria.

A CCP web page (www.saltonsea.fws.gov) was established to provide the public with specific information regarding the topics addressed at the scoping meetings and to present information regarding when and where to provide comments. Two Planning Updates have also been prepared to summarize the progress of the CCP and to discuss specific issues related to the planning process. Planning Updates are distributed to more than 100 individuals and organizations representing interested members of the public, conservation organizations, hunting, fishing and boating organizations, public agencies, municipalities, special districts, Tribes, and adjoining property owners. We received more than 50 letters, emails, and phone calls between October 2010 and March 2012.

This Compatibility Determination for waterfowl hunting has been made available for public review and comment as Appendix A of the Sonny Bono Salton Sea National Wildlife Refuge Complex Draft Comprehensive Conservation Plan and Environmental Assessment (USFWS 2013).

Determination:

Use is Not Compatible

Use is Compatible with the Following Stipulations

Stipulations Necessary to Ensure Compatibility:

To minimize the potential for adverse effects to Refuge resources and to avoid conflicts with other public uses, the following measures will be implemented as part of the Refuge hunt program:

- Hunting on the Refuge is only permitted in designated hunting areas for the purpose of hunting geese, ducks, coots, and common gallinules in accordance with State regulations specific to this Refuge.
- Hunters may enter the hunting area no earlier than 1½ hours before legal sunrise and must leave no later than 1 hour after sunset.
- Hunters must possess and carry a Refuge permit issued through the CDFW Wister Unit check station.
- In the Hazard Tract, hunters must remain within 100 feet of their assigned blind except to retrieve birds.
- In the Union Tract, hunters must hunt from their blind site.
- Youth hunters 15 years of age and younger must be accompanied by a non-hunting adult age 18 or older.
- Only the use of shotguns and steel or other nontoxic shot, as approved by the Service, may be used on the Refuge, and a hunter may not possess more than 25 shot shells while in the field.
- Firearms must be unloaded when being transported between parking areas and blind sites.
- Hunters must remove all blinds, decoys, shell casings, other personal equipment, and refuse from the Refuge at the end of each day.
- Provide sanctuary areas in Unit 1 to support all target species, and provide four non-hunt days within the hunt area to provide opportunities for undisturbed foraging and resting.
- Preserve a minimum of 77 acres of cattail habitat within the Hazard Unit to ensure no net loss of habitat for major life history requirements (i.e., breeding, feeding, resting cover) of Yuma clapper rail and to provide sanctuary for other secretive marsh birds, songbirds, and associated wildlife.
- Prohibit hunting in proximity to rail occupied territories during the breeding and molting seasons (March 15–September 1).
- Conduct annual protocol surveys of Yuma clapper rail on the Refuge to monitor population size and allow for quantitative comparisons of population size within occupied rail sites on the Refuge both within the Hazard Tract and outside the designated hunting area to discern any potential effects of disturbance on rails occupying the marsh habitat within the Hazard Tract. If declines in the overall rail population are detected, adaptively manage the hunt program to further minimize disturbance in cattail marsh habitats.
- Ensure periodic law enforcement presence in the area throughout the hunt season to minimize excessive harvest and other infractions (e.g., illegal use of lead shot, take of non-game species, littering, illegal access into closed areas).
- Post information about the importance of protecting non-target species at kiosks, on the Refuge website, and in handouts related to hunting on the Refuge.

In addition, all hunting activities and operations will be reviewed annually to ensure compliance with applicable laws, regulations, and policies. Target species population censuses will be reviewed annually with CDFW to ensure that harvest from hunting is not unacceptably affecting targeted populations. If impacts are identified, modification to the hunt program would be implemented.

Justification:

Under the National Wildlife Refuge System Administration Act, as amended, hunting is a wildlife-dependent recreational activity which receives enhanced consideration in the Comprehensive Conservation Planning process and is to be encouraged on National Wildlife Refuges if compatible with refuge purposes. Despite the direct and indirect impacts associated with hunting waterfowl, waterfowl populations on the Sonny Bono Salton Sea NWR and throughout the flyway are unlikely to be adversely affected by the continuation of the Refuge's current hunting program. Waterfowl population objectives and allowable harvests are determined on a flyway basis utilizing an established annual regulatory process. Limited hunt seasons, defined hunting areas, and the provision of sanctuary areas where hunting is not permitted ensure that wintering and migrating waterfowl, as well as non-target species, can find adequate food and rest areas on the Refuge even during the hunting season. In fact, of the acreage available on the Refuge for managing high quality habitat, approximately 1,375 acres (74 percent) will be closed to hunting and 1,249 acres (67 percent) will be closed to all public use to ensure an adequate amount of high-quality feeding and resting habitat for migratory and resident birds and other wildlife.

Allowing waterfowl hunting to continue on the Refuge under the stipulations described above will not materially interfere with or detract from fulfilling the Refuge purposes or the mission of the National Wildlife Refuge System (System) and is therefore considered a compatible use on the Refuge. The National Wildlife Refuge System Improvement Act (the Act) states that "compatible wildlife-dependent recreation is a legitimate and appropriate general public use of the System, directly related to the mission of the System . . . and through which the American public can develop an appreciation for fish and wildlife. . ." Waterfowl hunting is a priority public use of the System, as defined by the Act, that when found to be compatible, should be facilitated.

Mandatory Re-Evaluation Date:

- Mandatory 15-year Re-Evaluation Date (for priority public uses)
- Mandatory 10-year Re-Evaluation Date (for all uses other than priority public uses)

NEPA Compliance for Refuge Use Decision:

- Categorical Exclusion without Environmental Action Statement
- Categorical Exclusion and Environmental Action Statement
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

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Refuge Determination:

Prepared by:

(Signature)

(Date)

Project Leader
Approval:

(Signature)

(Date)

Concurrence:

Refuge Supervisor:

(Signature)

(Date)

Assistant Regional
Director, Refuges:

(Signature)

(Date)

Appendix A-2

Recreational Fishing Compatibility Determination

Sonny Bono Salton Sea National Wildlife Refuge

Compatibility Determination **(Draft, January 2013)**

Use: Recreational Fishing

Refuge Name: Sonny Bono Salton Sea National Wildlife Refuge

Establishing and Acquisition Authorities:

The Sonny Bono Salton Sea National Wildlife Refuge, located in Imperial County, California was established on November 25, 1930 by Executive Order 5498. Subsequent acquisitions were established by the Migratory Bird Conservation Act (16 U.S.C. § 715d), the Lea Act of 1948 (16 U.S.C. § 695), and the Fish and Wildlife Act of 1956 (16 U.S.C. 742a-742j).

Refuge Purposes:

For lands acquired under the Executive Order 5498 in 1930, the purpose of the acquisition is ". . . as a refuge and breeding ground for birds and wild animals;"

For lands acquired under the Migratory Bird Treaty Act (16 U.S.C., Section 715d), the purpose is ". . . for use as an inviolate sanctuary, or for any other management purpose for migratory birds;"

For lands acquired by the Lea Act of 1948 (16 U.S.C. § 695), the purpose is “. . . for the management and control of migratory waterfowl and other wildlife;” and

For the lands leased from the State of California, Department of Fish and Game acquired under the Fish and Wildlife Act of 1956 (16 U.S.C. 742a-742j), the purpose is “. . . primarily for the production of crops to provide wintering feed for waterfowl and to aid and assist in the control of depredation by waterfowl to commercial crops in the area.”

National Wildlife Refuge System Mission:

The mission of the National Wildlife 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 Administration Act of 1966, as amended [16 U.S.C. 668dd-668ee]).

Description of Use:

Fishing is identified in the National Wildlife Refuge System Improvement Act of 1997 (16 U.S.C. 668dd-ee) as a priority use for refuges when it is compatible with the refuge purposes and mission of the Refuge System. As a result, the Service is proposing to continue fishing on approximately 35,161 acres of Sonny Bono Salton Sea National Wildlife Refuge (NWR or Refuge).

The guiding principles of the Refuge System’s fishing programs (Service Manual 605 FW 3) that apply to the Sonny Bono Salton Sea NWR include promoting visitor understanding of, and increase visitor appreciation for, America’s natural resources; providing opportunities for quality recreational and educational experiences; encouraging participation in this tradition deeply rooted in America’s natural heritage and conservation history; and minimizing conflicts with visitors participating in other compatible wildlife-dependent recreational activities. The Refuge’s fishing program provides safe and cost-effective fishing opportunities, and is carried out consistent with State regulations.

Fishing activities permitted on the Refuge are limited to boat fishing, which may occur on open-water portions of the Refuge in the Salton Sea during daylight hours from April 1 through September 30. This area is closed to all access during the remainder of the year (October 1 through March 31) to reduce disturbance to wintering, resting, foraging, and breeding birds and other wildlife and their habitats. A boat launch that provides boating access to the Refuge's portion of the Salton Sea is located on the south shore of the Salton Sea at Obsidian Butte.

Fishing is not permitted on the remainder of the Refuge, including along the shoreline of the Salton Sea and New and Alamo Rivers, within open water wetland habitat, and in drainage and irrigation channels located within the Refuge boundaries.

The Refuge adopts harvest regulations set by the State, which uses the best available population information. Anglers are required to comply with all State fishing regulations, however, at present the only known game fish species that remains in the Salton Sea is Mozambique Tilapia (*Oreochromis mossambicus*). There is currently no limit to the quantity of this species that an angler may take, although the California Office of Environmental Health Hazard Assessment (OEHHA) has issued safe eating guidelines for fish from the Salton Sea. These guidelines recommend that consumption of fish from the Salton Sea be limited to no more than two servings per week (http://oehha.ca.gov/fish/so_cal/, accessed July 30, 2012). This guidance is provided in response to elevated levels of selenium that have been identified in fish from the Salton Sea.

Availability of Resources:

Refuge resources needed to monitor tilapia fishing on the Salton Sea are minimal. Nearly all fishing that occurs on the Salton Sea is shore fishing in areas located outside of the Refuge boundaries where anglers can find abundant opportunities for fishing. Without the lure of larger recreational game fish of the past (e.g., corvina, sargo, croaker), there is very little reason for anglers to use a boat to fish for tilapia. Consequently, staff time and funds needed to monitor angling in the Salton Sea is less than \$1,000 annually. Therefore, adequate funding and staff time is available to manage this use.

Anticipated Impacts of Use:

Although a solitary and stationary activity that tends to be less disturbing to wildlife than hunting or motorized boating (Tuite et al 1983), fishing has the potential to influence the composition of bird communities, as well as the distribution, abundance, and productivity of waterbirds (Tydeman 1977, Bouffard 1982, Bell and Austin 1985, Bordignon 1985, Edwards and Bell 1985, Cooke 1987). Shoreline activities during launching, such as human and engine generated noises, can cause some birds to flush and go elsewhere. Boating associated with fishing can alter bird distribution, reduce use of particular habitats or entire areas by waterfowl and other waterbirds, alter feeding behavior and nutritional status, and cause premature departure from areas (Knight and Cole 1995).

Huffman (1999) studied the effects of watercraft on wintering birds in the southern end of San Diego Bay and observed that operating any watercraft within the Bay resulted in some level of disturbance to surrounding birds. The degree of disturbance depended upon the vessel's speed, proximity to rafting birds, proximity to the shoreline, and amount of noise produced during operation (Huffman 1999). Of all the types of watercraft used in the bay, Huffman observed that powerboats resulted in the greatest disturbances to the avian community, and in cases in which motorized watercraft were within 100 meters of the shoreline, all waterfowl between the boat and shore and any shorebirds along the shoreline would flush regardless of the speed of the watercraft.

Frequent disturbance to foraging and loafing shorebirds and other migratory waterbirds can reduce an individual bird's ability to meet its energy requirements by causing the bird to expend energy in the process of flying away from the disturbance. If disturbance becomes too frequent, those birds that do not habituate could permanently leave the area (West et al. 2002).

Potential Impacts to Listed Species. The fishing activities permitted on the Refuge are unlikely to pose any potential for impacts to listed species because of restrictions in where fishing can occur on the Refuge. No fishing is permitted in proximity to habitat that supports the federally endangered Yuma clapper rail (*Rallus longirostris yumanensis*), nor would fishing occur in the vicinity of habitats with the potential to support nesting California least tern (*Sternula antillarum browni*), least Bell's vireo (*Vireo bellii pusillus*), or southwestern willow flycatcher (*Empidonax traillii extimus*). In addition, there is little, if any, potential for impacts to the endangered desert pupfish (*Cyprinodon macularius macularius*) as a result of permitted boat fishing in the Salton Sea.

Potential Conflicts with Other Wildlife-dependent Recreational Uses. With respect to potential conflicts between the permitted fishing activities on the Refuge and other permitted uses, Refuge staff has observed little, if any, conflicts between anglers and other wildlife-dependent recreational uses permitted on the Refuge.

Public Review and Comment:

Opportunities for recreational fishing on the Sonny Bono Salton Sea NWR were addressed during the public scoping process for the Sonny Bono Salton Sea NWR Complex Comprehensive Conservation Plan (CCP). To initiate the CCP process, a Notice of Intent was published in the Federal Register on October 15, 2010 (65 FR 39172). At that time, written comments were solicited. In September 2010, two scoping meetings were held, one in Palm Desert and one in Calipatria, to receive input from the public on issues related to the future management of the Sonny Bono Salton Sea and Coachella Valley NWRs. Approximately 20 people attended the scoping meeting held in Palm Desert and 10 people attend the scoping meeting in Calipatria.

A CCP web page (www.saltonsea.fws.gov) was established to provide the public with specific information regarding the topics addressed at the scoping meetings and to present information regarding when and where to provide comments. Two Planning Updates have also been prepared to summarize the progress of the CCP and to discuss specific issues related to the planning process. Planning Updates are distributed to more than 100 individuals and organizations representing interested members of the public, conservation organizations, hunting, fishing and boating organizations, public agencies, municipalities, special districts, Tribes, and adjoining property owners. We received more than 50 letters, emails, and phone calls between October 2010 and March 2012.

This Compatibility Determination for recreational fishing has been made available for public review and comment as Appendix A of the Sonny Bono Salton Sea National Wildlife Refuge Complex Draft Comprehensive Conservation Plan and Environmental Assessment (USFWS 2013).

Determination:

Use is Not Compatible

Use is Compatible with the Following Stipulations

Stipulations Necessary to Ensure Compatibility:

The measures presented here will be implemented to ensure that recreational fishing is compatible with purposes for which this Refuge was established.

- Fishing is limited to boat fishing within the open waters of the Salton Sea; no shoreline fishing is permitted anywhere on the Refuge.
- Fishing is permitted during daylight hours from April 1 through September 30; the Refuge is closed to fishing between October 1 and March 31 to reduce disturbance to birds and other wildlife.
- Information about the Refuge fishing program is posted on informational signs/kiosks, included in brochures distributed to the public, and presented on the Refuge’s website (www.fws.gov/saltonsea); and regulatory and directional signs are posted to clearly mark designated routes of travel and areas closed to the public.
- Periodic law enforcement by game wardens and Federal wildlife officers will help ensure compliance with State fishing regulations and Refuge regulation compliance.
- Refuge staff will conduct regular surveys of fishing activities on the Refuge; the data will be analyzed and used by the Refuge Manager to develop future modifications if necessary to ensure compatibility of the fishing program.
- Anglers using boats are required to abide by the stipulations described in the State and Coast Guard regulations on boating.

Justification:

The Refuge Manager has determined that recreational fishing within Sonny Bono Salton Sea NWR, as described herein, will not materially interfere with or detract from the purposes for which the Refuge was established or the mission of the National Wildlife Refuge System (Refuge System). As the public engages in activities on the Refuge, including fishing, many will go away with a greater appreciation for the wildlife and habitat supported on the Refuge. In addition, the overall benefits of facilitating fishing on the Refuge include developing public support for and appreciate of the Refuge actions implemented on the Refuge and throughout the Refuge System to manage, conserve, and protect fish and wildlife resources. The National Wildlife Refuge System Improvement Act (the Act) states that “compatible wildlife-dependent recreation is a legitimate and appropriate general public use of the System, directly related to the mission of the System . . . and through which the American public can develop an appreciation for fish and wildlife. . .” Fishing is one of the six priority public uses of the Refuge System, as defined by the Act, that when found to be compatible, should be facilitated.

Mandatory Re-Evaluation Date:

- Mandatory 15-year Re-Evaluation Date (for priority public uses)
- Mandatory 10-year Re-Evaluation Date (for all uses other than priority public uses)

NEPA Compliance for Refuge Use Decision:

- Categorical Exclusion without Environmental Action Statement
- Categorical Exclusion and Environmental Action Statement
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

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Refuge Determination:

Prepared by:

(Signature)

(Date)

Project Leader
Approval:

(Signature)

(Date)

Concurrence:

Refuge Supervisor:

(Signature)

(Date)

Assistant Regional
Director, Refuges:

(Signature)

(Date)

Appendix A-3

Wildlife Observation, Photography, and Interpretation Compatibility Determination

Sonny Bono Salton Sea National Wildlife Refuge

Compatibility Determination (Draft, May 2013)

Use: Wildlife Observation, Photography, and Interpretation

Refuge Name: Sonny Bono Salton Sea National Wildlife Refuge

Establishing and Acquisition Authorities:

The Sonny Bono Salton Sea National Wildlife Refuge, located in Imperial County, California was established on November 25, 1930 by Executive Order 5498. Subsequent acquisitions were established by the Migratory Bird Conservation Act (16 U.S.C. § 715d), the Lea Act of 1948 (16 U.S.C. § 695), and the Fish and Wildlife Act of 1956 (16 U.S.C. 742a-742j).

Refuge Purposes:

For lands acquired under the Executive Order 5498 in 1930, the purpose of the acquisition is ". . . as a refuge and breeding ground for birds and wild animals;"

For lands acquired under the Migratory Bird Treaty Act (16 U.S.C., Section 715d), the purpose is ". . . for use as an inviolate sanctuary, or for any other management purpose for migratory birds;"

For lands acquired by the Lea Act of 1948 (16 U.S.C. § 695), the purpose is ". . . for the management and control of migratory waterfowl and other wildlife;" and

For the lands leased from the State of California, Department of Fish and Game acquired under the Fish and Wildlife Act of 1956 (16 U.S.C. 742a-742j), the purpose is ". . . primarily for the production of crops to provide wintering feed for waterfowl and to aid and assist in the control of depredation by waterfowl to commercial crops in the area."

National Wildlife Refuge System Mission:

The mission of the National Wildlife 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 Administration Act of 1966, as amended [16 U.S.C. 668dd-668ee]).

Description of Use:

Wildlife Observation. The majority of the visitors to the Sonny Bono Salton Sea National Wildlife Refuge (NWR or Refuge) participate in wildlife observation, primarily birdwatching. Situated along the Pacific Flyway, the Salton Sea provides year round opportunities for observing birds. The area supports significant numbers of migratory shorebirds, waterfowl, and other waterbirds, and provides nesting areas for summer visitors including terns and gulls and foraging areas for winter visitors such as geese and lesser (*Grus canadensis canadensis*) and greater sandhill cranes (*Grus canadensis tabida*). Also supported on the Refuge are secretive marshbirds, including the Federal endangered Yuma clapper rail (*Rallus longirostris yumanensis*), and a variety of resident and migratory upland birds. Over 400 species of birds have been observed at the Sea and surrounding area, making the Sea and its environs a birding area of year-round international importance.

To support wildlife observation, the Refuge provides two elevated observation platforms, an interpretive loop trail, and two photo blinds in Unit 1, and an elevated observation platform and interpretive trail in Unit 2. Also proposed in the Comprehensive Conservation Plan for the Sonny Bono Salton Sea NWR Complex are additional facilities to support wildlife observation

in both Units 1 and 2. In Unit 1, a parking lot and bird blind would be provided near a recently restored willow scrub area. From this vantage point, visitors would have the opportunity to observe birds utilizing the willow habitat, as well as view the geese and sandhill cranes present during the winter in the Refuge's adjacent managed agricultural fields. In Unit 2, a birding trail would be constructed on the eastern berm of the Red Hill Bay restoration project and a seasonal birding trail would be developed around a portion of the wetlands included within the Hazard Tract. The seasonal birding trail would be available for use outside of the hunting season. There is no admission fee for using the trails, which are open to the public from sunrise to sunset, daily.

Photography. The birding trails, observation platforms, and blinds described under wildlife observation are also available for use by photographers who come to the Refuge year-round to capture the images of the many birds present on the Refuge.

Interpretation. Interpretation on Unit 1 and Unit 2 is currently provided through a series of interpretive panels installed on existing trails, including the Rock Hill Trail located near the Refuge headquarters in Unit 2 and along the Hardenberger Trail in Unit 1. These interpretive panels provide general information about the wildlife, habitats, and geological resources protected within the Refuge. Many of these interpretive panels are in need of refurbishment and/or replacement, as discussed in the Comprehensive Conservation Plan (CCP) prepared for the Sonny Bono Salton Sea NWR Complex (USFWS 2013).

Additional interpretive materials are available in the visitor contact station at the Refuge headquarters, and guided interpretive walks are provided to organized groups who make reservations in advance. These interpretive walks are usually requested by adult groups (e.g., local Kiwanis, garden, women's clubs) interested in learning factual information about the Salton Sea.

Interpretive panels that address the restoration of shallow, open water habitat in Red Hill Bay are proposed for installation along the proposed birding trail when funding is identified. The CCP also describes in one of the alternatives a proposal to work with other partners in developing an auto tour route that would interpret various resources and activities occurring in and around south end of the Salton Sea, including Refuge lands.

Availability of Resources:

Direct costs to administer the current wildlife observation, photography, and interpretive uses on the Refuge are in the form of staff time. Adequate staff is available to manage these wildlife-dependent recreational uses; however, funding has not been allocated to support the proposed expansion of these uses, as described in the CCP. Minimal funding would be required to prepare a birding trail on the eastern berm of the Red Hill Bay restoration site, while other proposals, such as replacing the interpretive signs and building a new bird blind in Unit 1, as well as constructing a seasonal birding trail on the Hazard Tract, would require significantly greater funding. Therefore, these facilities would be provided as funding is secured. Potential funding sources include Federal cost share grants, interagency partnerships, state and private grants, and donations. Volunteer labor could also offset some of the costs of new trails and interpretive sign installation. The addition of a future Outdoor Recreation Planner/Interpretive Specialist position is also proposed for the Refuge in the CCP to support existing and future wildlife-dependent recreational uses on the Refuge. As always, discretionary use of staff time to implement new projects and provide guided interpretive walks would be weighed through a cost-benefit analysis.

Table 1 describes the level of involvement by Refuge staff that will be required annually to manage and monitor public uses related to wildlife observation, photography, and interpretation. The funding needs for new construction projects (e.g., interpretive elements, new trails, bird blind) are presented in Table 2.

Table 1 Annual Staff Time Required to Manage Activities and Facilities Associated with Wildlife Observation, Photography, and Interpretation	
Staff Responsibilities	Annual Administrative/Management Staff Time
Refuge Manager – Oversight of wildlife-dependent recreational uses	0.02 FTE ¹
Outdoor Recreation Planner/Interpretive Specialist (new position) – Manage and monitor public use areas and activities; assist in the development of interpretive materials; train volunteers to conduct interpretive walks and other programs	0.80 FTE ²
Park Ranger – Maintain public use areas; work with volunteers to improve and maintain trails, signage, and visitor parking areas	0.20 FTE
Wildlife Biologist – Conduct periodic visits to public use areas to identify any potential effects to wildlife related to disturbance	0.02 FTE
REQUIRED ANNUAL STAFF TIME	1.04 FTE

¹FTE (full time equivalent)

²New Position

Table 2 New Facilities Costs Associated with Managing Proposed Wildlife Observation, Photography, and Interpretive Facilities on the Sonny Bono Salton Sea NWR		
Material/Facility Required	Explanation of Need	Cost
Improve the Accessibility of the Refuge's Interpretive Trails	Providing a firm and stable trail surface will improve accessibility for all users wishing to engage in wildlife observation, photography, and interpretation.	\$65,000
Update and Expand Interpretive Signage in Unit 1	Updated, site specific interpretive signage will provide the public with a better understanding the need for the highly managed habitats on the Refuge, as well as inform the public of the changes occurring in the Salton Sea and the effects these changes could have on migratory birds.	\$29,500

Table 2 New Facilities Costs Associated with Managing Proposed Wildlife Observation, Photography, and Interpretive Facilities on the Sonny Bono Salton Sea NWR		
Material/Facility Required	Explanation of Need	Cost
Construct a New Parking Area and Bird Blind in Unit 1 off Vendel Road	This facility will provide opportunities to observe migratory and resident songbirds within the restored willow scrub habitat, as well as wintering geese and sandhill cranes in the adjacent managed agricultural field.	\$85,000
Update and Expand Interpretive Signage in Unit 2	Update interpretive signage along the Red Hill Trail to coordinate the interpretive messages with the goals of the Refuge's environmental education program to d benefit students and teachers, as well as improve the experience of all trail users, as provide interpretation along the proposed Red Hill Bay observation trail.	\$28,000
Construct a Seasonal Birding Trail, Kiosk, and Associated Parking Lot in the Hazard Tract (Unit 2)	This 1.5-mile-long loop trail will improve the public's opportunities for observing and photographing migratory waterfowl and other waterbirds.	\$60,000
Total Cost For Facilities		\$267,5000

Anticipated Impacts of the Use:

Recreational uses such as wildlife observation, nature photography, and interpretation can negatively impact wildlife by altering wildlife behavior, reproduction, distribution, and habitat (Purdy et al. 1987, Knight and Cole 1995). Purdy et al. (1987) and Pomerantz et al. (1988) described six categories of impacts to wildlife as a result of visitor activities:

- direct mortality (i.e., immediate, on-site death of an organism);
- indirect mortality (i.e., eventual, premature death of an organism caused by an event or agent that predisposed the organism to death);
- lowered productivity (i.e., reduced fecundity rate, nesting success, or reduced survival rate of young before dispersal from nest or birth site);
- reduced use of refuge (i.e., wildlife not using the refuge as frequently or in the manner they normally would in the absence of visitor activity);
- reduced use of preferred habitat on the refuge (i.e., wildlife use is relegated to less suitable habitat on the refuge due to visitor activity); and
- aberrant behavior/stress (i.e., wildlife demonstrating unusual behavior or signs of stress likely to result in reduced reproductive or survival rates).

Wildlife and native plants may be disturbed by human contact to varying degrees. Human disturbance in the form of trampling can result in the loss of sensitive plants, reptiles, and invertebrates. Human activities on trails can result in direct effects on wildlife through harassment, a form of disturbance that can cause physiological effects, behavioral modifications, or death (Smith and Hunt 1995). Many studies have shown that birds can be affected by human activities on trails when they are disturbed and flushed from feeding, resting, or nesting areas.

Flushing, especially repetitive flushing, can strongly affect habitat use patterns of many bird species. Flushing from an area can cause birds to expend more energy, be deterred from using desirable habitat, change resting or feeding patterns, increase exposure to predation, or abandon sites with repeated disturbance (Smith and Hunt 1995).

Nest predation for songbirds (Miller et al. 1998), raptors (Glinski 1976), colonial nesting species (Buckley and Buckley 1976), and waterfowl (Boyle and Samson 1985) also tends to increase in areas more frequently visited by people.

Depending on the species (especially migrants vs. residents), some birds may habituate to some types of recreation disturbance and either are not disturbed or will immediately return after the initial disturbance (Hockin et al. 1992, Burger et al. 1995, Knight and Temple 1995, Madsen 1995, Fox and Madsen 1997). Rodgers and Smith (1997) calculated buffer distances that minimize disturbance to foraging and loafing birds based on experimental flushing distances for 16 species of waders and shorebirds. They recommended 100 meters as an adequate buffer against pedestrian traffic; however, they suggest this distance may be reduced if physical barriers (e.g., vegetation screening) are provided, noise levels are reduced, and traffic is directed tangentially rather than directly toward birds.

Of the wildlife observation techniques, wildlife photographers tend to have the largest disturbance effects (Klein 1993, Morton 1995, Dobb 1998). While wildlife observers frequently stop to view species, wildlife photographers are more likely to approach wildlife (Klein 1993). Even a slow approach by wildlife photographers tends to have behavioral consequences to wildlife species (Klein 1993). Other impacts include the potential for photographers to remain close to wildlife for extended periods of time in an attempt to habituate the wildlife subject to their presence (Dobb 1998) and the tendency of casual photographers, with low-power lenses, to get much closer to their subjects than other activities would require (Morton 1995), including wandering off trails.

Interpretive materials can help make visitors aware that their actions can have negative impacts on Refuge species, and will increase the likelihood that visitors will abide by restrictions on their actions. For example, Klein (1993) demonstrated that visitors who had spoken with refuge staff or volunteers were less likely to disturb birds. Monitoring is recommended to adjust management techniques over time, particularly because it is often difficult to generalize about the impacts of specific types of recreation in different environments. Local and site-specific knowledge is necessary to determine effects on birds and other species and to develop effective management strategies (Hockin et al. 1992, Klein et al. 1995, Hill et al. 1997).

The construction and maintenance of trails, interpretive elements, bird blinds, and parking lots will have minor impacts on soils and vegetation. 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 (Cole and Marion 1988). However, the construction of trails to direct access will concentrate foot traffic, allowing the vegetation surrounding them to remain undisturbed. To avoid impacts to water quality and adjacent native habitat during the construction of facilities proposed to support wildlife-dependent recreational uses, the CCP (USFWS 2013) includes a range of best management practices that would be followed prior to, during, and following construction.

Disturbance of wildlife, primarily listed and migratory bird species, is the primary concern related to wildlife observation, photography, and interpretation on this Refuge. To reduce the overall effect of these uses on Refuge resources, large areas of the Refuge are closed to public use. Where public use is permitted, disturbance would be limited to areas adjacent to designated trails, observation platforms, and roadways; therefore this disturbance would be localized and intermittent. To provide some additional respite for birds and other wildlife utilizing the Hazard Tract, the seasonal birding trail proposed for this area would be open on March 1 of each year, one month after the close of the hunting season, and would remain open until September 30.

Activities associated with wildlife observation and interpretation generally support the Refuge's purposes and impacts can be minimized (Goff et al. 1988). The minor resource impacts attributed to these activities are generally outweighed by the benefits gained by educating present and future generations about refuge resources. Interpretation is a public use management tool that can be effectively used to develop a resource protection ethic within society. This tool allows us to educate refuge visitors about the need to protect listed and sensitive species and provide high quality habitat to support migratory and resident bird species.

Potential Effects to List and Sensitive Species. As noted above, human activity can have adverse impacts to wildlife species, particularly when reproductive or foraging activities are disrupted. Of particular concern are potential disturbances to the federally endangered Yuma clapper rail, which is supported by the cattail marsh habitat that occurs on the Refuge. Maintaining designated trails to accommodate wildlife observation and photography, as well as regulatory and interpretive signage to keep authorized users out of these sensitive areas, has minimized disturbance to this species, as well as other secretive marsh birds species such as the State listed California black rail (*Laterallus jamaicensis ssp. coturniculus*).

Due to the limited access that the public has to areas that could support the endangered desert pupfish (*Cyprinodon macularius macularius*), existing and proposed uses related to wildlife observation, photography, and interpretation are unlikely to adversely affect this species.

Seabirds of concern such as the federally endangered California least tern (*Sternula antillarum browni*) when present occur in the managed open water habitats on the Refuge, on the nesting islands within this managed water habitats, and in and along the shoreline of the Salton Sea. Because these areas are not open to the public and nearby public uses, including trails, are adequately separated from these areas, these birds are unlikely to be affected by current or future public use activities on the Refuge.

Other Federal and/or State listed species such as the least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and little willow flycatcher (*Empidonax traillii brewsteri*) periodically occur on the Refuge during migration and have the potential to nest on the Refuge in areas where suitable habitat is present. Suitable nesting habitat is however very limited within those areas of the Refuge that are open for public use and nesting by these species has not been observed. If nesting of listed or sensitive species is documented, the nesting area and a suitable buffer zone around the nesting area would be closed to public access during the nesting season.

Potential Effects to Migratory Birds. Existing and proposed trails on the Refuge provide access to the perimeter of managed habitats. No access into the habitat is permitted. This design provides significant acreage of undisturbed habitat within habitat management areas. Managed agricultural fields that support wintering populations of geese and sandhill cranes are not open to general public access and wildlife observation is only permitted from a few perimeter roads and trails. Therefore, the potential for disturbance is limited. In other areas, access would be provided along the edges of wetland habitat areas, providing migratory birds with large expanses of undisturbed habitat away from public viewing areas. To minimize off-trail activity in some of these areas, gates, vegetative barriers, and signs have been provided.

Public Review and Comment:

Opportunities for wildlife observation, photography, and interpretation on the Sonny Bono Salton Sea NWR were addressed during the public scoping process for the Sonny Bono Salton Sea NWR Complex Comprehensive Conservation Plan (CCP). To initiate the CCP process, a Notice of Intent was published in the Federal Register on October 15, 2010 (65 FR 39172). At that time, written comments were solicited. In September 2010, two scoping meetings were held, one in Palm Desert and one in Calipatria, to receive input from the public on issues related to the future management of the Sonny Bono Salton Sea and Coachella Valley NWRs. Approximately 20 people attended the scoping meeting held in Palm Desert and 10 people attend the scoping meeting in Calipatria.

A CCP web page (www.saltonsea.fws.gov) was established to provide the public with specific information regarding the topics addressed at the scoping meetings and to present information regarding when and where to provide comments. Two Planning Updates have also been prepared to summarize the progress of the CCP and to discuss specific issues related to the planning process. Planning Updates are distributed to more than 100 individuals and organizations representing interested members of the public, conservation organizations, hunting, fishing and boating organizations, public agencies, municipalities, special districts, Tribes, and adjoining property owners. We received more than 50 letters, emails, and phone calls between October 2010 and March 2012.

This Compatibility Determination for wildlife observation, photography, and interpretation has been made available for public review and comment as Appendix A of the Sonny Bono Salton Sea National Wildlife Refuge Complex Draft CCP and Environmental Assessment (USFWS 2013).

Determination:

Use is Not Compatible

Use is Compatible with the Following Stipulations

Stipulations Necessary to Ensure Compatibility:

The measures presented here will be implemented to ensure that wildlife observation, photography, and interpretation are compatible with purposes for which this Refuge was established.

- Public access on the Refuge will be managed to ensure that adequate areas remain free of human disturbance to support the foraging, resting, and nesting needs of the migratory and resident birds and other wildlife found on the Refuge.

- Regulations and wildlife friendly behavior (e.g., requirements to stay on designated trails, dogs must be kept on leash) will be posted on kiosks and at the visitor contact station and will be described in brochures.
- All public access onto the Refuge will be restricted to the hours between sunrise and sunset.
- Areas of the Refuge may be restricted seasonally to reduce impacts during breeding or nesting season or to avoid conflicts with other wildlife-dependent uses, primarily hunting.
- All activities associated with wildlife observation, photography, and interpretation will be restricted to designated trails, approved access roads, observation platforms, and photo blinds.
- Interpretive signage, displays, kiosks, and brochures will be maintained and updated as necessary to ensure that the public is receiving the message about the need to protect Refuge resources.
- Regular monitoring of public activities on the Refuge will be conducted by Refuge staff and monitoring results will be analyzed and used by the Refuge Manager to develop future modifications, if necessary, to ensure compatibility of wildlife observation, photography, and interpretive programs.
- Appropriate BMPs to protect water and air quality, as presented in Chapter 6 of the Sonny Bono Salton Sea NWR Complex CCP, will be implemented during the construction of new public use facilities such as trails and parking lots, as well as during general maintenance of trails and public access roads.

Justification:

The continuation of activities related to wildlife observation, photography, and interpretation on the Sonny Bono Salton Sea NWR, as well as the proposed expansion of facilities to support these uses, would not adversely affect the Refuge’s ability to achieve its purposes. These uses are therefore considered to be compatible with purposes for which the Refuge was established. In addition, as the public engages in these types of activities on the Refuge, many will go away with a greater understanding of the importance of protecting native habitats and their associated wildlife species.

The overall benefits of facilitating these uses is developing public support for and appreciate of the Refuge actions implemented on the Refuge and throughout the Refuge system to manage, conserve, and protect fish and wildlife resources. In the same manner, presenting the public with information about the importance of the resources supported on the Refuge without materially interfering with their daily activities supports the fulfillment the National Wildlife Refuge System (System) conservation mission. The National Wildlife Refuge System Improvement Act (the Act) states that “compatible wildlife-dependent recreation is a legitimate and appropriate general public use of the System, directly related to the mission of the System . . . and through which the American public can develop an appreciation for fish and wildlife. . .” Wildlife observation, photography, and interpretation are three of the six priority public uses of the System, as defined by the Act, that when found to be compatible, should be facilitated.

Mandatory Re-Evaluation Date:

Mandatory 15-year Re-Evaluation Date (for priority public uses)

Mandatory 10-year Re-Evaluation Date (for all uses other than priority public uses)

NEPA Compliance for Refuge Use Decision:

- _ Categorical Exclusion without Environmental Action Statement
- _ Categorical Exclusion and Environmental Action Statement
- Environmental Assessment and Finding of No Significant Impact
- _ Environmental Impact Statement and Record of Decision

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- U.S. Fish and Wildlife Service. 2013. Sonny Bono Salton Sea National Wildlife Refuge Complex Draft Comprehensive Conservation Plan and Environmental Assessment.

Refuge Determination:

Prepared by:

(Signature)

(Date)

Project Leader
Approval:

(Signature)

(Date)

Concurrence:

Refuge Supervisor:

(Signature)

(Date)

Assistant Regional
Director, Refuges:

(Signature)

(Date)

Appendix A-4

***Environmental Education
Compatibility Determination***

Sonny Bono Salton Sea National Wildlife Refuge

Compatibility Determination **(Draft, January 2013)**

Use: Environmental Education

Refuge Name: Sonny Bono Salton Sea National Wildlife Refuge

Establishing and Acquisition Authorities:

The Sonny Bono Salton Sea National Wildlife Refuge, located in Imperial County, California was established on November 25, 1930 by Executive Order 5498. Subsequent acquisitions were established by the Migratory Bird Conservation Act (16 U.S.C. § 715d), the Lea Act of 1948 (16 U.S.C. § 695), and the Fish and Wildlife Act of 1956 (16 U.S.C. 742a-742j).

Refuge Purposes:

For lands acquired under the Executive Order 5498 in 1930, the purpose of the acquisition is ". . . as a refuge and breeding ground for birds and wild animals;"

For lands acquired under the Migratory Bird Treaty Act (16 U.S.C., Section 715d), the purpose is ". . . for use as an inviolate sanctuary, or for any other management purpose for migratory birds;"

For lands acquired by the Lea Act of 1948 (16 U.S.C. § 695), the purpose is ". . . for the management and control of migratory waterfowl and other wildlife;" and

For the lands leased from the State of California, Department of Fish and Game acquired under the Fish and Wildlife Act of 1956 (16 U.S.C. 742a-742j), the purpose is ". . . primarily for the production of crops to provide wintering feed for waterfowl and to aid and assist in the control of depredation by waterfowl to commercial crops in the area."

National Wildlife Refuge System Mission:

The mission of the National Wildlife 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 Administration Act of 1966, as amended [16 U.S.C. 668dd-668ee]).

Description of Use:

The environmental education program implemented on the Sonny Bono Salton Sea National Wildlife Refuge (NWR or Refuge) currently hosts elementary and high students from schools throughout the Imperial Valley. The program provides instruction related to the Salton Sea and various habitats and resources managed on the Refuge. Coordination of the Refuge's environmental education program is frequently accomplished through the Imperial Valley Regional Occupational Program (IVROP) to ensure schools are able to meet certain educational curricula when they visit the Refuge.

Approximately 1,000 students and their teachers visit the Refuge each year to meet some portion of their environmental education needs. Usually schools visit the headquarters area (Unit 2) and make observations along the Rock Hill Trail, gathering information about the native desert habitat, studying conditions and resources along the edge of the Salton Sea, viewing the wetland resources in "D" Pond, and observing the changes in geological conditions along the path. The majority of the activities associated with the Refuge's environmental education program occur in the fall and spring months of each year to coincide with cooler weather conditions and an increased abundance of birdlife. Trips to Unit 1 to implement the environmental education program are far less frequent.

Although not essential to the continuation of the program, the Refuge’s environmental education program would benefit from proposals to update the existing interpretive signage and improve trail accessibility, as described in the Comprehensive Conservation Plan (CCP) for the Sonny Bono Salton Sea NWR Complex (USFWS 2013). The Refuge is also working with partners on the development and publication of a Naturalist Activity Guide for students and visitors to the Refuge and nearby New River Wetlands Project. Project partners (IVROP, the Desert Protective Council, and the Refuge) continue to seek funding to complete this project. Once completed, this self-guided activity pamphlet will improve the field trip experience by providing new activities that explore the Refuges’ natural history, conservation values and challenges, and stewardship opportunities. The guide will also address the resources and conservation values present with the entire Salton Basin. The target audience will be local school groups (grades 4 to 6), and their families.

Availability of Resources:

Direct costs to administer the current environmental education program are in the form of staff time and funding for materials. The estimated annual cost to the Refuge for this program is under \$7,000, and includes material costs and some staff time for occasional oversight of the programs, periodic updates to the current curriculum, and participation in teacher training sessions.

Adequate staff positions and financial resources are currently available and committed to manage the continuation of existing program. However, funding to implement improvements that would benefit the overall quality of the program (e.g., upgrading the interpretive elements along the Red Hill Trail to better coordinate the interpretive messages with the goals of the environmental education program, improving trail accessibility) and to develop and publish a Naturalist Activity Guide has not yet been secured. Potential sources for additional funding include Federal cost share grants, other Federal, State, local, and non-profit grants that focus on environmental education, and private funding sources.

Table 1 describes the level of involvement by Refuge staff that will be required annually to manage the Refuge’s current environmental education program. The funding needs to implement projects that could benefit the environmental education program are presented in Table 2.

Table 1 Annual Staff Time Required to Manage the Refuge’s Environmental Education Program	
Staff Responsibilities	Annual Administrative/Management Staff Time
Refuge Manager – Oversight of EE program	0.01 FTE ¹
Wildlife Refuge Specialist – Provide occasional assistance with EE program	0.04 FTE
Biological Technician – Assist in coordination of EE program and in EE presentations and outings on the Refuge	0.30 FTE
REQUIRED ANNUAL STAFF TIME	0.35 FTE

¹FTE (full time equivalent)

<p align="center">Table 2 Improvements and Projects to Benefit Environmental Education Activities on the Sonny Bono Salton Sea NWR</p>		
Material/Facility Required	Explanation of Need	Cost
Improve the Accessibility of the Refuge's Interpretive Trails ¹	Providing a firm and stable trail surface will improve accessibility for all users engaging in environmental education and other activities on the Refuge.	\$65,000
Update Interpretive Signage in Unit 2 ¹	Updated, interpretive signage along the Red Hill Trail that coordinates the interpretive messages with the goals of the Refuge's environmental education program benefit students and teachers, as well as improve the experience of all trail users.	\$28,000
Develop and Publish a Naturalist Activity Guide	This activity pamphlet will enable students and their families, teachers, and other visitors, to conduct and enjoy self-guided walks on the Refuge. The pamphlet will improve the field trip experience by providing new activities that explore the Refuges' natural history, conservation values and challenges, and stewardship opportunities.	\$10,000
Total Cost For Facilities		\$103,000

¹This material/facility is also described for Wildlife Observation, Photography, and Interpretation

Anticipated Impacts of the Use:

Human activity that occurs in proximity to wetlands and other wildlife habitat can negatively impact wildlife by altering wildlife behavior, reproduction, distribution, and habitat (Purdy et al. 1987, Knight and Cole 1995). The disturbance to wildlife association with noise and movement that occurs adjacent to habitat areas, as well as occasional intrusion into habitat areas, can result in direct mortality (i.e., immediate, on-site death of an organism); indirect mortality (i.e., eventual, premature death of an organism caused by an event or agent that predisposed the organism to death); lowered productivity (i.e., reduced fecundity rate, nesting success, or reduced survival rate of young before dispersal from nest or birth site); reduced use of a habitat area (i.e., wildlife not using the area as frequently or in the manner they normally would in the absence of visitor activity); and aberrant behavior/stress (i.e., wildlife demonstrating unusual behavior or signs of stress likely to result in reduced reproductive or survival rates) (Purdy et al. 1987, Pomerantz et al. 1988).

Wildlife can be disturbed by human contact to varying degrees. Many studies have shown that birds can be affected by human activities on trails when they are disturbed and flushed from feeding, resting, or nesting areas. Flushing, especially repetitive flushing, can strongly affect habitat use patterns of many bird species. Flushing from an area can cause birds to expend more energy, be deterred from using desirable habitat, change resting or feeding patterns, increase exposure to predation, or abandon sites with repeated disturbance (Smith and Hunt 1995).

Potential impacts to Refuge resources associated with the environmental education program would result in some disturbance to birds and other wildlife, due primarily to noise levels associated with larger groups. Because these programs generally confine their activities to established trails on the Refuge, any disturbance would occur around the perimeter of large established habitat areas, reducing the overall effect to birds and other wildlife present in these areas. Also the majority of this activity occurs outside of the nesting season, therefore, the potential for impacts to nesting seabirds, shorebirds, waterfowl, and other species is limited. Additional measures such as designing environmental education programs to minimize the potential for impacts related to disturbance; providing adequate Refuge oversight of program design and implementation, as well as supervision of educational activities occurring on the Refuge; and ensuring coordination among partners also assist in reducing the potential for adverse impacts to Refuge resources.

Potential Effects to Listed and Sensitive Species. No adverse effects to listed or sensitive species are anticipated as a result of ongoing environmental education programs, because activities associated with these programs have limited access to areas that support these species. In addition, the majority of the environmental education activities that occur on the Refuge take place outside of the nesting season.

Potential Effects to Migratory Birds. Existing trails used by participants in the Refuge's environmental education program provide access to the perimeter of managed habitats, with no access permitted within the managed habitat areas. As such, significant acreage of undisturbed habitat within habitat management areas is available to avoid adverse effects to most species. To minimize the potential for off-trail activity, adequate adult supervision is provided during environmental education outings.

Public Review and Comment:

Implementation of an environmental education program on the on the Sonny Bono Salton Sea NWR was addressed during the public scoping process for the Sonny Bono Salton Sea NWR Complex Comprehensive Conservation Plan (CCP). To initiate the CCP process, a Notice of Intent was published in the Federal Register on October 15, 2010 (65 FR 39172). At that time, written comments were solicited. In September 2010, two scoping meetings were held, one in Palm Desert and one in Calipatria, to receive input from the public on issues related to the future management of the Sonny Bono Salton Sea and Coachella Valley NWRs. Approximately 20 people attended the scoping meeting held in Palm Desert and 10 people attend the scoping meeting in Calipatria.

A CCP web page (www.saltonsea.fws.gov) was established to provide the public with specific information regarding the topics addressed at the scoping meetings and to present information regarding when and where to provide comments. Two Planning Updates have also been prepared to summarize the progress of the CCP and to discuss specific issues related to the planning process. Planning Updates are distributed to more than 100 individuals and organizations representing interested members of the public, conservation organizations, hunting, fishing and boating organizations, public agencies, municipalities, special districts, Tribes, and adjoining property owners. We received more than 50 letters, emails, and phone calls between October 2010 and March 2012.

This Compatibility Determination for environmental education has been made available for public review and comment as Appendix A of the Sonny Bono Salton Sea National Wildlife Refuge Complex Draft CCP and Environmental Assessment (USFWS 2013).

Determination:

Use is Not Compatible

Use is Compatible with the Following Stipulations

Stipulations Necessary to Ensure Compatibility:

The measures presented here will be implemented to ensure that the activities occurring on the Refuge in association with environmental education are compatible with purposes for which this Refuge was established.

- Participants in the Refuge’s environmental education program will be restricted to the designated trail system, visitor contact station, established environmental education areas, and other designated sites.
- Groups participating in the Refuge’s environmental education program will be required to have a sufficient number of adults to supervise their groups, a minimum of one adult per 12 students, and the teacher and adult supervisors will be responsible for ensuring that students follow wildlife observation etiquette.
- Periodic monitoring of environmental education program activities will be conducted by Refuge staff to ensure that these activities are not resulting in unforeseen impacts to Refuge resources, and if necessary, Refuge staff will work with its partners to correct such problems.

Justification:

The continuation of environmental education on Sonny Bono Salton Sea NWR it not expected to adversely affect the Refuge’s wildlife or habitat. The program is therefore considered to be compatible with purposes for which the Refuge was established. In addition, the goal of the Refuge’s environmental education program is to provide participants with a greater understanding of the importance of protecting native habitats and their associated wildlife species.

The overall benefits of facilitating this use include educating the public about the importance of the resources supported on the Refuge and the need for continued support of the many activities conducted on the Refuge to provide essential habitat for migratory birds and other wildlife. The National Wildlife Refuge System Improvement Act (the Act) states that “compatible wildlife-dependent recreation is a legitimate and appropriate general public use of the System, directly related to the mission of the System . . . and through which the American public can develop an appreciation for fish and wildlife. . .” Environmental education is one of the six priority public uses of the System, as defined by the Act, that when found to be compatible, should be facilitated.

Mandatory Re-Evaluation Date:

Mandatory 15-year Re-Evaluation Date (for priority public uses)

Mandatory 10-year Re-Evaluation Date (for all uses other than priority public uses)

NEPA Compliance for Refuge Use Decision:

- Categorical Exclusion without Environmental Action Statement
- Categorical Exclusion and Environmental Action Statement
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

References Cited:

Knight, R. L. and D. N. Cole. 1995. Wildlife responses to recreationists. In *Wildlife and recreationists*, edited by R. L. Knight and K. J. Gutzwiller. Covelo, California: Island Press.

Pomerantz, G. A., D. J. Decker, G. R. Goff, and K. G. Purdy. 1988. Assessing impact of recreation on wildlife: A classification scheme. *Wildlife Society Bulletin* 16:58-62.

Purdy, K. G., G. R. Goff, D. J. Decker, G. A. Pomerantz, and N. A. Connelly. 1987. A guide to managing human activity on national wildlife refuges. Ft. Collins, Colorado: Office of Information Transfer, U.S. Fish and Wildlife Service.

Smith, L. and J. D. Hunt. 1995. Nature tourism: Impacts and management. In *Wildlife and recreationists: Coexistence through management and research*, edited by R. L. Knight and K. J. Gutzwiller. Washington, D.C., Island Press.

U.S. Fish and Wildlife Service. 2013. Sonny Bono Salton Sea National Wildlife Refuge Complex Draft Comprehensive Conservation Plan and Environmental Assessment.

Refuge Determination:

Prepared by: _____ (Signature) _____ (Date)

Project Leader Approval: _____ (Signature) _____ (Date)

Concurrence:

Refuge Supervisor: _____ (Signature) _____ (Date)

Assistant Regional Director, Refuges: _____ (Signature) _____ (Date)

Appendix A-5

***Research Compatibility Determination and
Finding of Appropriateness***

Sonny Bono Salton Sea National Wildlife Refuge

Compatibility Determination **(Draft, January 2013)**

Use: Research

Refuge Name: Sonny Bono Salton Sea National Wildlife Refuge

Establishing and Acquisition Authorities:

The Sonny Bono Salton Sea National Wildlife Refuge, located in Imperial County, California was established on November 25, 1930 by Executive Order 5498. Subsequent acquisitions were established by the Migratory Bird Conservation Act (16 U.S.C. § 715d), the Lea Act of 1948 (16 U.S.C. § 695), and the Fish and Wildlife Act of 1956 (16 U.S.C. 742a-742j).

Refuge Purposes:

For lands acquired under the Executive Order 5498 in 1930, the purpose of the acquisition is ". . . as a refuge and breeding ground for birds and wild animals;"

For lands acquired under the Migratory Bird Treaty Act (16 U.S.C., Section 715d), the purpose is ". . . for use as an inviolate sanctuary, or for any other management purpose for migratory birds;"

For lands acquired by the Lea Act of 1948 (16 U.S.C. § 695), the purpose is ". . . for the management and control of migratory waterfowl and other wildlife;" and

For the lands leased from the State of California, Department of Fish and Game acquired under the Fish and Wildlife Act of 1956 (16 U.S.C. 742a-742j), the purpose is ". . . primarily for the production of crops to provide wintering feed for waterfowl and to aid and assist in the control of depredation by waterfowl to commercial crops in the area."

National Wildlife Refuge System Mission:

The mission of the National Wildlife 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 Administration Act of 1966, as amended [16 U.S.C. 668dd-668ee]).

Description of Use:

The Sonny Bono Salton Sea National Wildlife Refuge (NWR or Refuge) receives periodic requests for permission to conduct scientific research on the Refuge. Although research is not identified as a wildlife-dependent recreational use by the National Wildlife Refuge System Improvement Act of 1997, scientific research can benefit Refuge resources and facilitate informed management decisions. In so doing, scientific research conducted on the Refuge would support Refuge purposes and the mission of the National Wildlife Refuge System (Refuge System). The results of some research projects may also assist the Refuge in its inventory and monitoring responsibilities.

Research investigations can be designed to address specific Refuge management questions such as those related to habitat management techniques, wildlife and plant population monitoring, documentation of seasonal wildlife movements and habitat use, wildlife disease, and invasive species control. Pertinent results from research investigations can be incorporated into management plans and actions, and help strengthen the decision-making process.

Requests to conduct scientific research on the Refuge require approval by the Refuge Manager and the issuance of a Refuge Special Use Permit (SUP). SUPs are only issued for research that can contribute to the enhancement, protection, preservation, and management of Refuge plant and wildlife populations and their habitats. For a research project to be approved, the following information about the research proposal must be provided to the Refuge Manager:

- 1) Objectives of the study;
- 2) Justification for the study;
- 3) Detailed study methodology and schedule;
- 4) Potential impacts to Refuge wildlife and/or habitats, including short- and long-term disturbance, injury, and mortality;
- 5) Research personnel required and their qualifications/experience;
- 6) Status of necessary permits (i.e., scientific collecting permits, endangered species permit);
- 7) Costs to Refuge and Refuge staff time requested, if any; and
- 8) Anticipated end products (i.e., reports, publications).

Research proposals are reviewed by Refuge staff or others, as appropriate. The criteria listed below, and others as necessary, are used to assess research proposals.

- 1) Does the research proposal provide data that could contribute to the enhancement, protection, and/or management of migratory birds, listed species, and/or their habitats?
- 2) Will the research address issues relevant to Refuge management, such as effective invasive species control, contaminants, forage crop productivity, water quality, or climate change?
- 3) Does the research have the potential to conflict with other ongoing research, monitoring, or management programs on the Refuge?
- 4) Is this a research project that could just as easily be conducted elsewhere (off-Refuge)?
- 5) What efforts have been made to minimize disturbance through study design (e.g., consideration of location, timing, or scope of the study, study methods, number of participants)?

Research that will contribute to specific Refuge management issues will be given higher priority over other research requests. Research projects that can be accomplished off-Refuge, have the potential to cause undue disturbance (the level and type of disturbance will be carefully evaluated when considering a request), or could conflict with ongoing research, monitoring, and Refuge management programs, are unlikely to be approved. If staffing or logistics make it impossible for the Refuge to monitor researcher activity in sensitive areas, the research request may be denied.

The duration of the project will be considered and agreed upon before approval. Open-ended research projects will not be approved. Suggestions may be made to adjust such things as the location, timing, scope, number of permittees, study methods, and number of study sites. All research projects will be reviewed annually to assess whether they continue to operate as originally proposed and to contribute to the objectives of the study.

The Refuge Manager will issue a SUP for all approved research proposals. The SUP will likely include project-specific conditions to protect trust resources and ensure compatibility with Refuge purposes.

Availability of Resources:

Adequate funding and staff exist to manage some level of scientific research on the Sonny Bono Salton Sea NWR. As always, discretionary use of staff time would be weighed through a cost-benefit analysis.

Direct costs to administer research activities are primarily in the form of staff time. Table 1 describes the level of involvement by Refuge staff that will be required annually to manage and monitor research activities on the Refuge.

Table 1 Annual Staff Involvement Associated with Managing Scientific Research Uses on the Refuge	
Staff Responsibilities	Annual Administrative/Management Staff Time
Refuge Manager – Review and approval of research proposals; approval of SUP	0.02 FTE*
Senior Wildlife Biologist – Assist in review of research proposals; prepare SUP; monitor ongoing research to ensure compliance with the conditions of the SUP; and conduct an annual review of ongoing research activities	0.10 FTE
REQUIRED ANNUAL STAFF TIME	0.12 FTE

*FTE (full time equivalent)

Anticipated Impacts of the Use:

Potential negative direct and indirect effects of research conducted on the Refuge by outside entities relate primarily to disturbance of sensitive habitats, sensitive species, migratory birds, and nesting seabirds. Researcher disturbance could include flushing migratory birds during peak migration periods, causing nesting seabirds to fly off of nests exposing chicks to heat and predation, altering wildlife behavior, tramping sensitive habitat to collect soil, plant, and/or invertebrate samples, or trapping and handling wildlife. Some disturbance can be avoided through SUP conditions that limit where, when, and for how long a researcher can be present in sensitive habitat areas. Other effects would be short in duration such as sampling of such things as water, soils, vegetative litter, plants, and invertebrates required for identification and/or experimentation and statistical analysis and captured and marked wildlife would be released following infield data collection and tagging or banding. Conditions included in SUPs would ensure that the long-term effects of research activities would be negligible.

Conducting management-oriented research will benefit Refuge fish, wildlife, and plant populations and their habitat. Such research will be designed to answer habitat or population management questions, thereby contributing to adaptive management of the Refuge. Expected long-term effects of such research include a growing body of science-based data and knowledge from which to draw upon to implement the best Refuge management possible.

Potential Effects to Listed and Sensitive Species. Human activity can have adverse impacts on listed species, particularly when it disrupts bird nesting or foraging activities (Carney and Sydeman 1999). Of particular concern is the potential for disturbance during the nesting season for the endangered Yuma clapper rail (*Rallus longirostris yumanensis*) and potential impacts to

desert pupfish (*Cyprinodon macularius*). The Yuma clapper rail is supported by the cattail marsh habitat that occurs on the Refuge and the desert pupfish lives in the Salton Sea and some nearby associated drains and wetlands. A prerequisite of approved research would be that it ensures the information gained must contribute to the enhancement, protection, preservation or management of the Refuge's Yuma clapper rail population and on and off-refuge desert pupfish populations.

To minimize disturbance to listed and sensitive bird species, research activities proposed in the vicinity of sensitive foraging and nesting habitat during the breeding season would be scrutinized and appropriate restrictions would be imposed on research activities to ensure that no adverse effects would occur. Including appropriate conditions in SUPs would ensure that no adverse effects to listed or sensitive species would result from the implementation of research projects on the Refuge.

Potential Effects to Migratory Birds. The Salton Sea and its environs are extremely important to migratory birds for foraging, loafing and, to a lesser degree, nesting. Human activity associated with scientific research projects may result in disturbance to these birds. Some level of disturbance is expected with all research activities, because most researchers would be entering areas that are normally closed to the public. Through the SUP process, project specific conditions can be placed on individual research proposals to ensure that the potential for impacts to Refuge resources are minimized.

The conditions at the Salton Sea that make this area a regional significant wetland staging ground for migratory birds is constantly changing due to receding water levels, increasing salinities, and the presence of contaminants that can alter the quality of the water. Research can play a vital role on the Salton Sea landscape to help provide factual information for scientists, land managers, and politicians to help make decisions about how to best manage the Salton Sea into the future. The Refuge will encourage research projects that can contribute to the enhancement, protection, preservation or management of the Salton Sea and Refuge habitats and species.

Public Review and Comment:

Opportunities for scientific research on the Sonny Bono Salton Sea NWR were addressed during the public scoping process for the Sonny Bono Salton Sea NWR Complex Comprehensive Conservation Plan (CCP). To initiate the CCP process, a Notice of Intent was published in the Federal Register on October 15, 2010 (65 FR 39172). At that time, written comments were solicited. In September 2010, two scoping meetings were held, one in Palm Desert and one in Calipatria, to receive input from the public on issues related to the future management of the Sonny Bono Salton Sea and Coachella Valley NWRs. Approximately 20 people attended the scoping meeting held in Palm Desert and 10 people attend the scoping meeting in Calipatria.

A CCP web page (www.saltonsea.fws.gov) was established to provide the public with specific information regarding the topics addressed at the scoping meetings and to present information regarding when and where to provide comments. Two Planning Updates have also been prepared to summarize the progress of the CCP and to discuss specific issues related to the planning process. Planning Updates are distributed to more than 100 individuals and organizations representing interested members of the public, conservation organizations, hunting, fishing and boating organizations, public agencies, municipalities, special districts, Tribes, and adjoining property owners. We received more than 50 letters, emails, and phone calls between October 2010 and March 2012.

This Compatibility Determination for scientific research has been made available for public review and comment as Appendix A of the Sonny Bono Salton Sea National Wildlife Refuge Complex Draft Comprehensive Conservation Plan and Environmental Assessment (USFWS 2013).

Determination:

Use is Not Compatible

Use is Compatible with the Following Stipulations

Stipulations Necessary to Ensure Compatibility:

Concerns about protecting listed and sensitive species, as well as migratory birds and their habitats require that Refuge staff closely review proposed research projects and that research activities and impacts be monitored. To minimize the potential for adverse effects to Refuge resources as a result of scientific research, the following measures would be implemented:

- All research requests will be required to provide a detailed description of the study proposal. At a minimum, the description should address the purpose of the research, the potential benefits to Refuge management and/or Refuge resources, the number of participants, the times of the year in which field studies and/or data collection would occur, how the studies or data collection will be implemented, the areas on the Refuge that would be accessed, any potential impacts to Refuge resources that could occur and the measures that would be implemented to minimize such impacts, and when study results would be made available to the Refuge Manager.
- Approval of research projects on the Refuge will be permitted at the discretion of the Refuge Manager who will consider the compatibility of the proposed research with Refuge purposes, the proximity of research activities to sensitive habitat and known nesting areas, the potential for impacts to Refuge resources, and the availability of Refuge staff to manage and monitor the research activities. All research projects will be conducted under a SUP, which will include project-specific stipulations to avoid or minimize the potential for impacts.
- Highly intrusive or manipulative research will generally not be permitted in order to protect Refuge resources.
- Proposed research methods that have the potential to adversely affect Refuge resources will generally not be permitted. However, if the researcher can adequately demonstrate the need for the research and the overall benefits in terms of achieving Refuge purposes despite the potential for some adverse effects, the Refuge Manager has the discretion to permit such research provided the researcher can identify potential impacts in advance of their occurrence. The researcher will also be required to develop mitigation measures to minimize potential impacts. Mitigation measures will be listed as conditions on the SUP.
- Refuge staff will monitor researcher activities to assess study methods, identify any potential impacts to Refuge resources, and ensure compliance with SUP conditions; this monitoring may include accompanying researchers in the field.
- Researchers will be responsible for acquiring and/or renewing any necessary State and Federal permits prior to beginning or continuing their project.
- Research must adhere to current species protocols for data collection.
- Research that does not involve birds will generally be conducted outside of the breeding season of the avian species using the Refuge.
- The Refuge Manager can suspend or modify conditions or terminate on-refuge research that is already permitted and in progress, should unacceptable impacts or issues arise or be noted.

- SUPs will be valid for one year only. Renewals will be subject to review and approval by the Refuge Manager, who will consider the current status of the study, the researcher's compliance with the conditions outlined in the SUP, and the extent of anticipated or unanticipated impacts, if any, that occurred as a result of the specific research project.
- All data and research results, as well as copies of any reports or articles prepared as a result of the research, shall be provided to Refuge Manager.

Justification:

This program as described is determined to be compatible with the purposes for which the Refuge was established. The anticipated level of research to be conducted on the Refuge at any given time would be compatible because the Refuge Manager would ensure through project-specific conditions in a SUP that all research proposals support the purpose of the Refuge and mission of the Refuge System. In view of the impacts research activities may have on the Service's ability to achieve the Refuge purpose, sufficient restrictions will be placed on the researcher to ensure that disturbance is kept to a minimum and that the research will not materially interfere with or detract from Refuge purposes or the wildlife-dependent recreational uses occurring on the Refuge. Further, well-designed research investigations can directly benefit and support refuge goals and objectives. Management of migratory birds, listed and sensitive species, and other native plants and wildlife can be improved and/or adapted through the application of knowledge gained from research. The implementation of wildlife-dependent, priority public uses (i.e., hunting, fishing, wildlife observation, photography, environmental education, and interpretation) may also be altered to improve conditions for wildlife and their habitats based on the results of research.

Mandatory Re-Evaluation Date:

- Mandatory 15-year Re-Evaluation Date (for priority public uses)
- Mandatory 10-year Re-Evaluation Date (for all uses other than priority public uses)

NEPA Compliance for Refuge Use Decision:

- Categorical Exclusion without Environmental Action Statement
- Categorical Exclusion and Environmental Action Statement
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

References Cited:

Carney, Karen M. and William J. Sydeman. 1999. A Review of Human Disturbance Effects on Nesting Colonial Waterbirds. *Waterbirds: The International Journal of Waterbird Biology* 22(1):68-79.

U.S. Fish and Wildlife Service. 2013. Sonny Bono Salton Sea National Wildlife Refuge Complex Draft Comprehensive Conservation Plan and Environmental Assessment.

Refuge Determination:

Prepared by:

(Signature)

(Date)

Project Leader
Approval:

(Signature)

(Date)

Concurrence:

Refuge Supervisor:

(Signature)

(Date)

Assistant Regional
Director, Refuges:

(Signature)

(Date)

FINDING OF APPROPRIATENESS OF A REFUGE USE

Written Justification

Refuge Name: Sonny Bono Salton Sea National Wildlife Refuge

Use: Research

Justification for Determining that this Use is an Appropriate Use for the Refuge:

Although scientific research is not identified as a wildlife-dependent recreational use, the information provided as a result of selectively permitting such use on the Refuge can benefit Refuge resources and facilitate informed management decisions. Based on the Refuge proposes, priority would be given to scientific research that contributes to the enhancement, protection, and management of migratory birds, listed species, and their habitats. All research applications would be reviewed to ensure that the research objectives and justification, study methodology, schedule, and anticipated end products would provide useful information to assist with resource management on the Refuge. Additionally, all proposals would be reviewed to ensure that implementation of the research proposal would not result in significant disturbance or other impacts to Refuge resources. Because sufficient restrictions can be placed on the researcher to ensure that disturbance and other potential impacts are kept to a minimum, in my professional judgment scientific research is an appropriate use on the Refuge.

Refuge Manager: _____ Date: _____

Refuge Supervisor: _____ Date: _____

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: Sonny Bono Salton Sea National Wildlife Refuge

Use: Research

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	✓	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	✓	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	✓	
(d) Is the use consistent with public safety?	✓	
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	✓	
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	✓	
(g) Is the use manageable within available budget and staff?	✓	
(h) Will this be manageable in the future within existing resources?	✓	
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	✓	
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	✓	

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will **generally** not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate _____ **Appropriate**

Refuge Manager: _____ Date: _____

If found to be **Not Appropriate**, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found **Not Appropriate** outside the CCP process, the refuge supervisor must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence.

Refuge Supervisor: _____ Date: _____

Appendix A-6

***Environmental Education
Compatibility Determination***

Coachella Valley National Wildlife Refuge

Compatibility Determination
(Draft, May 2013)

Use: Environmental Education

Refuge Name: Coachella Valley National Wildlife Refuge

Establishing and Acquisition Authorities:

The Coachella Valley National Wildlife Refuge, located in Riverside County, California was established on August 28, 1985 under the authority of the Endangered Species Act of 1973 (87 Stat. 884) as amended, and the Land and Water Conservation Fund Act, dated Sept. 3, 1964 (78 Stat. 897). Additional lands have been added as a part of the active land acquisition program carried out in cooperation with the Nature Conservancy. Currently, the Refuge is composed of 3,577 acres.

Refuge Purposes:

The Refuge purpose for the Coachella Valley NWR is:

“To conserve (A) fish and wildlife which are listed as endangered species or threatened species . . . or (B) plants...” (Endangered Species Act of 1973).

National Wildlife Refuge System Mission:

The mission of the National Wildlife 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 Administration Act of 1966, as amended [16 U.S.C. 668dd-668ee]).

Description of Use:

The Coachella Valley National Wildlife Refuge (NWR or Refuge) will host college and other interested groups from throughout the Coachella Valley to participate in limited guided educational walking tours of the Refuge. Coordination will be accomplished through the Center for Natural Lands Management (CNLM) at the Coachella Valley Preserve and University of California, Riverside (UCR), Palm Desert campus staff to ensure groups are able to meet certain educational goals when they visit the Refuge. Approximately 300 students and interested individuals are expected to visit the Refuge each year to gain a familiarity and understanding of the Refuge’s place in the natural and human community. Visits will typically originate from 38th Avenue and proceed onto the Refuge where excellent examples of remaining active dune habitat can be observed. There is also the potential to observe some of the species endemic to this habitat. The activities generally occur late fall through spring and occasionally into early summer to coincide with cooler weather conditions and species activity patterns.

Availability of Resources:

Direct costs to administer the current environmental education program are in the form of staff time. Coordinating and communicating with CNLM and UCR staff requires little time as they are both very knowledgeable and trained in the local ecosystem and habitat management issues that are discussed during program visits. Costs to the Refuge are less than \$5,000 per year.

Anticipated Impacts of the Use:

Potential impacts associated with the continued implementation of environmental education on the Coachella Valley NWR include disturbance to wildlife and trampling or damage to sensitive plant and animal species and their habitats. These types of impacts would be minimized through appropriate program design, adequate Refuge oversight, and supervision on the site by trained guides.

Potential Effects to Listed and Sensitive Species. Human activity can have adverse impacts to listed species, particularly when reptile and native plant reproduction activities are disrupted. Of particular concern is potential disturbances to the federally threatened Coachella Valley fringe-toed lizard (*Uma inornata*), the federally endangered Coachella Valley milk-vetch (*Astragalus lentiginosus var. coachellae*), and several other sensitive species identified in the Coachella Valley Multiple Species Habitat Conservation Plan (CVAG 2007), which are supported by the active dune and other aeolian sand habitats present on the Refuge.

Some negative effects would be expected as small groups of people travel through the Refuge's dune habitat, especially where groups are entering the active dunes. This disturbance could include altering wildlife behavior and damaging vegetation as a result of not following leader instructions or not staying within a specified path. To minimize such effects, participants in the guided tours are briefed on how and where to walk within the dune habitat to minimize the potential for trampling of lizards or other sensitive species and guides monitor participant actions during the tour to ensure compliance. Coachella Valley milk-vetch is easily identified so with appropriate instruction, group participants can avoid stepping on this and other native plant species.

The long-term effects of these guided walks are expected to be negligible. However to ensure that no significant adverse effects to listed or sensitive species are occurring, the Refuge will periodically monitor how these guided walks are being conducted, as well as evaluate the results of annual species monitoring, to determine if changes to the program are necessary to better protect sensitive species and/or to address changes in population size or distribution within the areas affected by the walks. In addition, Refuge staff would ensure education discussions contribute to the familiarity and understanding of the Refuge's place in the natural and human community.

Public Review and Comment:

Opportunities for environmental education on the Coachella Valley NWR were addressed during the public scoping process for the Sonny Bono Salton Sea NWR Complex Comprehensive Conservation Plan (CCP). To initiate the CCP process, a Notice of Intent was published in the Federal Register on October 15, 2010 (65 FR 39172). At that time, written comments were solicited. In September 2010, two scoping meetings were held, one in Palm Desert and one in Calipatria, to receive input from the public on issues related to the future management of the Sonny Bono Salton Sea and Coachella Valley NWRs. Approximately 20 people attended the scoping meeting held in Palm Desert and 10 people attend the scoping meeting in Calipatria.

A CCP web page (www.salttonsea.fws.gov) was established to provide the public with specific information regarding the topics addressed at the scoping meetings and to present information regarding when and where to provide comments. Two Planning Updates have also been prepared to summarize the progress of the CCP and to discuss specific issues related to the planning process.

Planning Updates are distributed to more than 100 individuals and organizations representing interested members of the public, conservation organizations, hunting, fishing and boating organizations, public agencies, municipalities, special districts, Tribes, and adjoining property owners. We received more than 50 letters, emails, and phone calls between October 2010 and March 2012.

This Compatibility Determination for environmental education conducted on the Coachella Valley NWR has been made available for public review and comment as Appendix A of the Sonny Bono Salton Sea National Wildlife Refuge Complex Draft Comprehensive Conservation Plan and Environmental Assessment (USFWS 2013).

Determination:

Use is Not Compatible

Use is Compatible with the Following Stipulations

Stipulations Necessary to Ensure Compatibility:

To minimize the potential for adverse effects to Refuge resources from activities associated with the Refuge's environmental education program, the following measures would be implemented:

- All guided walks conducted on the Refuge by other partners must receive prior approval from Refuge staff to ensure that the number of participants will be manageable, adequate supervision will be provided, and that the frequency of guided walks is limited to no more than four walks per month to minimize disturbance to listed and sensitive species.
- Prior to entering the Refuge, all participants in guided walks will be briefed on the importance of staying with their guides at all times while on the dunes, as well as how and where to walk within the dune habitat to minimize the potential for trampling of lizards or other sensitive species.
- Guides will be responsible for ensuring that all participants act responsibly while on the Refuge.
- To ensure that no significant adverse effects to listed or sensitive species are occurring, the Refuge will periodically monitor how guided walks are being conducted, as well as evaluate the results of annual species monitoring, to determine if changes to the program are necessary to better protect sensitive species and/or to address changes in population size or distribution within the areas affected by the walks.

Justification:

As a wildlife-dependent recreational use, environmental education receives enhanced consideration in the Comprehensive Conservation Planning process. Environmental education can provide students with the joy of experiencing wildlife on their public lands, and as such, helps fulfill the mission of the National Wildlife Refuge System. The implementation of the stipulations presented here will ensure continued compatibility with Refuge purposes, and by limiting the size of groups and frequency of the walks, the use would be expected to result in only minor disturbance to sensitive species.

Allowing environmental education activities to occur on select areas of the Refuge under the stipulations described above will not materially detract from or interfere with the purposes for which this Refuge was established. In addition, as the public engages in these types of activities, many will go away with a greater understanding of the importance of protecting unique habitats

and the specialized species that rely on these habitats for their continued existence. The overall benefit of facilitating environmental education activities on the Refuge is the development of public support for and appreciation of the actions implemented on the Refuge and throughout the Refuge System to manage, conserve, and protect fish and wildlife resources.

Mandatory Re-Evaluation Date:

- Mandatory 15-year Re-Evaluation Date (for priority public uses)
- Mandatory 10-year Re-Evaluation Date (for all uses other than priority public uses)

NEPA Compliance for Refuge Use Decision:

- Categorical Exclusion without Environmental Action Statement
- Categorical Exclusion and Environmental Action Statement
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

References Cited:

Coachella Valley Association of Governments (CVAG). 2007. Final Recirculated Coachella Valley Multiple Species Habitat Conservation Plan. Sept.

U.S. Fish and Wildlife Service. 2013. Sonny Bono Salton Sea National Wildlife Refuge Complex Draft Comprehensive Conservation Plan and Environmental Assessment.

Refuge Determination:

Prepared by:

(Signature)

(Date)

Project Leader
Approval:

(Signature)

(Date)

Concurrence:

Refuge Supervisor:

(Signature)

(Date)

Assistant Regional
Director, Refuges:

(Signature)

(Date)

Appendix A-7

Research Compatibility Determination and Finding of Appropriateness

Coachella Valley National Wildlife Refuge

Compatibility Determination
(Draft, January 2013)

Use: Research

Refuge Name: Coachella Valley National Wildlife Refuge

Establishing and Acquisition Authorities:

The Coachella Valley National Wildlife Refuge, located in Riverside County, California was established on August 28, 1985 under the authority of the Endangered Species Act of 1973 (87 Stat. 884) as amended, and the Land and Water Conservation Fund Act, dated Sept. 3, 1964 (78 Stat. 897). Additional lands have been added as a part of the active land acquisition program carried out in cooperation with the Nature Conservancy. Currently, the Refuge is composed of 3,577 acres.

Refuge Purposes:

The Refuge purpose for the Coachella Valley NWR is:

“To conserve (A) fish and wildlife which are listed as endangered species or threatened species . . . or (B) plants...” (Endangered Species Act of 1973).

National Wildlife Refuge System Mission:

The mission of the National Wildlife 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 Administration Act of 1966, as amended [16 U.S.C. 668dd-668ee]).

Description of Use:

Two provisions of the National Wildlife Refuge System Improvement Act are to “maintain biological integrity, diversity and environmental health” and to conduct “inventory and monitoring.” Research investigations are designed to address these provisions by answering specific management questions. These include, but are not limited to, evaluation of vegetation and wildlife response to habitat management techniques, wildlife and plant population monitoring, documentation of seasonal wildlife movements and habitat use, wildlife disease investigations, and development of invasive species management techniques. Pertinent results from research investigations are incorporated into management plans and actions, and help strengthen the decision-making process.

Coachella Valley National Wildlife Refuge (NWR) receives periodic requests for permission to conduct scientific research on the Refuge. Although research is not identified as a wildlife-dependent recreational use by the National Wildlife Refuge System Improvement Act of 1997, scientific research can benefit Refuge resources and facilitate informed management decisions. In so doing, scientific research conducted on the Refuge would support Refuge purposes and the mission of the National Wildlife Refuge System. The results of some research projects may also assist the Refuge in its inventory and monitoring responsibilities.

Requests to conduct scientific research on the Refuge require approval by the Refuge Manager and the issuance of a Refuge Special Use Permit (SUP). SUPs are only issued for research that can contribute to the enhancement, protection, preservation, and management of Refuge plant and wildlife populations and their habitats. For a research project to be approved, the following information about the research proposal must be provided to the Refuge Manager:

- 1) Objectives of the study;
- 2) Justification for the study;
- 3) Detailed study methodology and schedule;
- 4) Potential impacts to Refuge wildlife and/or habitats, including short- and long-term disturbance, injury, and mortality;
- 5) Research personnel required and their qualifications/experience;
- 6) Status of necessary permits (i.e., scientific collecting permits, endangered species permit);
- 7) Costs to Refuge and Refuge staff time requested, if any; and
- 8) Anticipated end products (i.e., reports, publications).

Research proposals are reviewed by Refuge staff or others, as appropriate. The criteria listed below, and others as necessary, are used to assess research proposals.

- 1) Does the research proposal provide data that could contribute to the enhancement, protection, and/or management of migratory birds, listed species, and/or their habitats?
- 2) Will the research address issues relevant to Refuge management, such as effective invasive species control, contaminants, forage crop productivity, water quality, or climate change?
- 3) Does the research have the potential to conflict with other ongoing research, monitoring, or management programs on the Refuge?
- 4) Is this a research project that could just as easily be conducted elsewhere (off-Refuge)?
- 5) What efforts have been made to minimize disturbance through study design (e.g., consideration of location, timing, or scope of the study, study methods, number of participants)?

Research that will contribute to specific Refuge management issues will be given higher priority over other research requests. Research projects that can be accomplished off-Refuge, have the potential to cause undue disturbance (the level and type of disturbance will be carefully evaluated when considering a request), or could conflict with ongoing research, monitoring, and Refuge management programs, are unlikely to be approved. If staffing or logistics make it impossible for the Refuge to monitor researcher activity in sensitive areas, the research request may be denied.

The duration of the project will be considered and agreed upon before approval. Open-ended research projects will not be approved. Suggestions may be made to adjust such things as the location, timing, scope, number of permittees, study methods, and number of study sites. All research projects will be reviewed annually to assess whether they continue to operate as originally proposed and to contribute to the objectives of the study.

The Refuge Manager will issue a SUP for all approved research proposals. The SUP will likely include project-specific conditions to protect trust resources and ensure compatibility with Refuge purposes.

Availability of Resources:

Adequate funding and staff exist to manage some level of scientific research on the Coachella Valley NWR. As always, discretionary use of staff time would be weighed through a cost-benefit analysis. Direct costs to administer research activities are primarily in the form of staff time. Table 1 describes the level of involvement by Refuge staff that will be required annually to manage and monitor research activities on the Refuge.

Table 1 Annual Staff Involvement Associated with Managing Scientific Research Uses on the Refuge	
Staff Responsibilities	Annual Administrative/Management Staff Time
Refuge Manager – Review and approval of research proposals; approval of SUP	0.02 FTE*
Senior Wildlife Biologist – Assist in review of research proposals; prepare SUP; monitor ongoing research to ensure compliance with the conditions of the SUP; and conduct an annual review of ongoing research activities	0.15 FTE
REQUIRED ANNUAL STAFF TIME	0.17 FTE

*FTE (full time equivalent)

Anticipated Impacts of the Use:

Potential negative direct and indirect effects of research conducted on the Refuge by outside entities relate primarily to disturbance of sensitive habitats and sensitive species and potential damage to or loss of sensitive plants and wildlife. Researcher disturbance could alter wildlife behavior, tramping sensitive habitat to collect soil, plant, and/or invertebrate samples, or trapping and handling wildlife. Some disturbance can be avoided through SUP conditions that limit where, when, and for how long a researcher can be present in sensitive habitat areas. Other effects would be short in duration such as sampling of such things as water, soils, vegetative litter, plants, and invertebrates required for identification and/or experimentation and statistical analysis and captured and marked wildlife would be released following infield data collection and tagging or banding. Conditions included in SUPs would ensure that the long-term effects of research activities would be negligible.

Conducting management-oriented research will benefit Refuge wildlife and plant populations and their habitat. Such research will be designed to answer habitat or population management questions, thereby contributing to adaptive management of the Refuge. Expected long-term effects of such research include a growing body of science-based data and knowledge from which to draw upon to implement the best Refuge management possible.

Endangered and Threatened Species. Human activity can have adverse impacts to listed species, particularly when disturbance occurs in harsh environments such as the aeolian sand habitats present on the Refuge. Of particular concern are potential disturbances to the endangered Coachella Valley milk-vetch (*Astragalus lentiginosus var. coachellae*) and the threatened Coachella Valley fringe-toed lizard (*Uma inornata*). Both species are supported by the active desert dune habitat that occurs on the Refuge, as are a number of other sensitive species identified in the Coachella Valley Multiple Species Habitat Conservation Plan (CVAG 2007). A prerequisite of approved research would be that it ensures the information gained will contribute to the enhancement, protection, preservation, or management of these species.

Public Review and Comment:

Opportunities for scientific research on the Coachella Valley NWR were addressed during the public scoping process for the Sonny Bono Salton Sea NWR Complex Comprehensive Conservation Plan (CCP). To initiate the CCP process, a Notice of Intent was published in the Federal Register on October 15, 2010 (65 FR 39172). At that time, written comments were solicited. In September 2010,

two scoping meetings were held, one in Palm Desert and one in Calipatria, to receive input from the public on issues related to the future management of the Sonny Bono Salton Sea and Coachella Valley NWRs. Approximately 20 people attended the scoping meeting held in Palm Desert and 10 people attend the scoping meeting in Calipatria.

A CCP web page (www.saltonsea.fws.gov) was established to provide the public with specific information regarding the topics addressed at the scoping meetings and to present information regarding when and where to provide comments. Two Planning Updates have also been prepared to summarize the progress of the CCP and to discuss specific issues related to the planning process. Planning Updates are distributed to more than 100 individuals and organizations representing interested members of the public, conservation organizations, hunting, fishing and boating organizations, public agencies, municipalities, special districts, Tribes, and adjoining property owners. We received more than 50 letters, emails, and phone calls between October 2010 and March 2012.

The draft Compatibility Determination for scientific research conducted on the Coachella Valley NWR has been made available for public review and comment as Appendix A of the Sonny Bono Salton Sea National Wildlife Refuge Complex Draft Comprehensive Conservation Plan and Environmental Assessment (USFWS 2013).

Determination:

Use is Not Compatible

Use is Compatible with the Following Stipulations

Stipulations Necessary to Ensure Compatibility:

Concerns about protecting listed and sensitive species and their habitats require that Refuge staff closely review proposed research projects and that research activities and impacts be monitored. To minimize the potential for adverse effects to Refuge resources as a result of scientific research, the following measures would be implemented:

- All research requests will be required to provide a detailed description of the study proposal. At a minimum, the description should address the purpose of the research, the potential benefits to Refuge management and/or Refuge resources, the number of participants, the times of the year in which field studies and/or data collection would occur, how the studies or data collection will be implemented, the areas on the Refuge that would be accessed, any potential impacts to Refuge resources that could occur and the measures that would be implemented to minimize such impacts, and when study results would be made available to the Refuge Manager.
- Approval of research projects on the Refuge will be permitted at the discretion of the Refuge Manager who will consider the compatibility of the proposed research with Refuge purposes, the proximity of research activities to sensitive habitat and areas known or believed to support listed or sensitive species, the potential for impacts to Refuge resources, and the availability of Refuge staff to manage and monitor the research activities. All research projects will be conducted under a SUP, which will include project-specific stipulations to avoid or minimize the potential for impacts.
- Highly intrusive or manipulative research will generally not be permitted in order to protect Refuge resources.

- Proposed research methods that have the potential to adversely affect Refuge resources will generally not be permitted. However, if the researcher can adequately demonstrate the need for the research and the overall benefits in terms of achieving Refuge purposes despite the potential for some adverse effects, the Refuge Manager has the discretion to permit such research provided the researcher can identify potential impacts in advance of their occurrence. The researcher will also be required to develop mitigation measures to minimize potential impacts. Mitigation measures will be listed as conditions on the SUP.
- Refuge staff will monitor researcher activities to assess study methods, identify any potential impacts to Refuge resources, and ensure compliance with SUP conditions; this monitoring may include accompanying researchers in the field.
- Researchers will be responsible for acquiring and/or renewing any necessary State and Federal permits prior to beginning or continuing their project.
- Research must adhere to current species protocols for data collection.
- The Refuge Manager can suspend or modify conditions or terminate on-refuge research that is already permitted and in progress, should unacceptable impacts or issues arise or be noted.
- SUPs will be valid for one year only. Renewals will be subject to review and approval by the Refuge Manager, who will consider the current status of the study, the researcher's compliance with the conditions outlined in the SUP, and the extent of anticipated or unanticipated impacts, if any, that occurred as a result of the specific research project.
- All data and research results, as well as copies of any reports or articles prepared as a result of the research, shall be provided to Refuge Manager.

Justification:

This program as described is determined to be compatible. The anticipated level of research to be conducted on the Refuge at any given time would be compatible because the Refuge Manager would ensure through project-specific conditions in a SUP that all research proposals support the purpose of the Refuge and mission of the System. In view of the impacts research activities may have on the Service's ability to achieve the Refuge purpose, sufficient restrictions will be placed on the researcher to ensure that disturbance is kept to a minimum and that the research will not materially interfere with or detract from the purposes for which the Refuge was established. Further, well-designed research investigations can directly benefit and support refuge goals and objectives. Management of listed and sensitive species, and other native plants and wildlife can be improved and/or adapted through the application of knowledge gained from research. The implementation of wildlife-dependent, priority public uses (i.e., hunting, fishing, wildlife observation, photography, environmental education, and interpretation) may also be altered to improve conditions for wildlife and their habitats based on the results of research.

Mandatory Re-Evaluation Date:

- Mandatory 15-year Re-Evaluation Date (for priority public uses)
- Mandatory 10-year Re-Evaluation Date (for all uses other than priority public uses)

NEPA Compliance for Refuge Use Decision:

- Categorical Exclusion without Environmental Action Statement
- Categorical Exclusion and Environmental Action Statement
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

References Cited:

Coachella Valley Association of Governments (CVAG). 2007. Final Recirculated Coachella Valley Multiple Species Habitat Conservation Plan. Sept.

U.S. Fish and Wildlife Service. 2013. Sonny Bono Salton Sea National Wildlife Refuge Complex Draft Comprehensive Conservation Plan and Environmental Assessment.

Refuge Determination:

Prepared by: _____
(Signature) (Date)

Project Leader
Approval: _____
(Signature) (Date)

Concurrence:

Refuge Supervisor: _____
(Signature) (Date)

Assistant Regional
Director, Refuges: _____
(Signature) (Date)

FINDING OF APPROPRIATENESS OF A REFUGE USE

Written Justification

Refuge Name: Coachella Valley National Wildlife Refuge

Use: Research

Justification for Determining that this Use is an Appropriate Use for the Refuge:

Although scientific research is not identified as a wildlife-dependent recreational use, the information provided as a result of selectively permitting such use on the Refuge can benefit Refuge resources and facilitate informed management decisions. Based on the Refuge proposes, priority would be given to scientific research that contributes to the enhancement, protection, and management of listed and MSCHP-covered species and their habitats. All research applications would be reviewed to ensure that the research objectives and justification, study methodology, schedule, and anticipated end products would provide useful information to assist with resource management on the Refuge. Additionally, all proposals would be reviewed to ensure that implementation of the research proposal would not result in significant disturbance or other impacts to Refuge resources. Because sufficient restrictions can be placed on the researcher to ensure that disturbance and other potential impacts are kept to a minimum, in my professional judgment scientific research is an appropriate use on the Refuge.

Refuge Manager: _____ Date: _____

Refuge Supervisor: _____ Date: _____

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: Coachella Valley National Wildlife Refuge

Use: Research

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	✓	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	✓	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	✓	
(d) Is the use consistent with public safety?	✓	
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	✓	
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	✓	
(g) Is the use manageable within available budget and staff?	✓	
(h) Will this be manageable in the future within existing resources?	✓	
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	✓	
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	✓	

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will **generally** not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate _____ **Appropriate**

Refuge Manager: _____ Date: _____

If found to be **Not Appropriate**, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found **Not Appropriate** outside the CCP process, the refuge supervisor must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence.

Refuge Supervisor: _____ Date: _____

Appendix A-8

Equestrian/Hiking Trail Compatibility Determination and Finding of Appropriateness

Coachella Valley National Wildlife Refuge

Compatibility Determination
(Draft, May 2013)

Use: Equestrian/Hiking Trail

Refuge Name: Coachella Valley National Wildlife Refuge

Establishing and Acquisition Authorities:

The Coachella Valley National Wildlife Refuge, located in Riverside County, California was established on August 28, 1985 under the authority of the Endangered Species Act of 1973 (87 Stat. 884) as amended, and the Land and Water Conservation Fund Act, dated Sept. 3, 1964 (78 Stat. 897). Additional lands have been added as a part of the active land acquisition program carried out in cooperation with the Nature Conservancy. Currently, the Refuge is composed of 3,577 acres.

Refuge Purposes:

The Refuge purpose for the Coachella Valley NWR is:

“To conserve (A) fish and wildlife which are listed as endangered species or threatened species . . . or (B) plants...” (Endangered Species Act of 1973).

National Wildlife Refuge System Mission:

The mission of the National Wildlife 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 Administration Act of 1966, as amended [16 U.S.C. 668dd-668ee]).

Description of Use:

In 1989, the Bureau of Land Management (BLM) prepared an Environmental Assessment to evaluate the potential effects of a system of public equestrian and hiking trails in the southern portion of the Coachella Valley Preserve. This trail system was proposed by the Ivey Ranch Equestrian Center and the Coachella Valley Association of Governments (CVAG) (BLM 1989). The proposed trail system included several trail alignments that crossed lands included within the Coachella Valley National Wildlife Refuge (NWR or Refuge). After evaluating various alignments that would provide trail access through the Refuge, BLM identified a preferred trail alignment consisting of a north/south trail segment along a portion of the Refuge’s western boundary and east/west trail segment that would extend through the northern portion of the Refuge (Figure 1). The proposed alignment was presented to the U.S. Fish and Wildlife Service (Service) for evaluation.

In 1990, the Service issued a biological opinion stating that the implementation of BLM’s preferred alternative was not likely to jeopardize the continued existence of the Coachella Valley fringe-toed lizard, provided that the following reasonable and prudent measures were implemented:

- Trail users limited their activities to the designated trail;
- No pets are permitted on the trails; and
- Trail use is monitored for potential adverse effects to the fringe-toed lizard or its habitat and to implement corrective measures, if required.

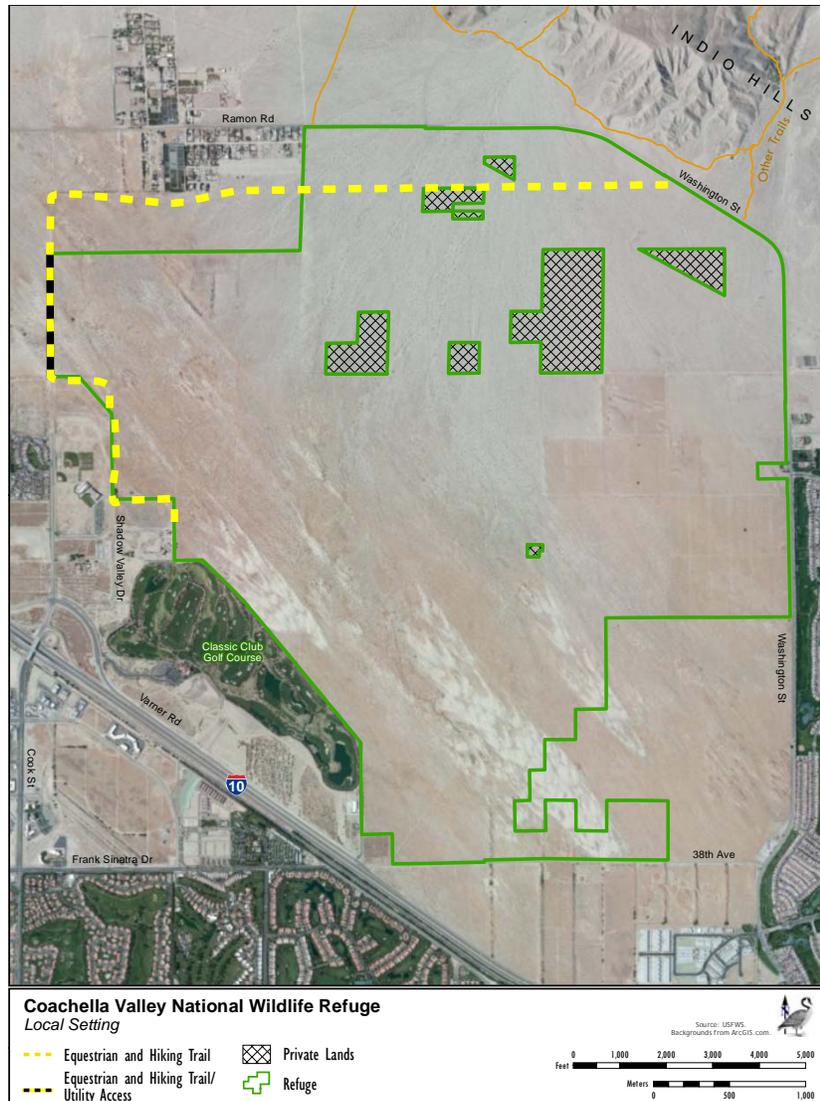


Figure 1. Equestrian/Hiking Trail - Coachella Valley NWR

BLM’s trail plan was subsequently approved and the trail was established on the Refuge. This trail is now part of the non-motorized transportation plan for the Coachella Valley, which was completed in 2001 and updated in 2010 (CVAG 2010). Although trail use is not considered a wildlife-dependent recreational use, the trail does provide opportunities for wildlife observation and photography, which are two of the six wildlife-dependent recreational uses identified by the National Wildlife Refuge System Improvement Act of 1997 (16 United States Code [USC] 668dd-668ee) (the Act).

The approved trail alignment is located well to the north of the Refuge’s sensitive active dune areas, as indicated in Figure 1. Over the years, the trail has received a moderate level of use, with activity levels slightly lower in 2013 than in 1990s. Monitoring of trail activity indicates that users typically adhere to the requirement to stay on the trail while traversing the Refuge. Most trail users are traveling through the Refuge to connect with other portions of the regional trail system, rather than coming specifically to ride on the Refuge.

Availability of Resources:

Trail maintenance requirements are low and overall trail use is limited, therefore, adequate funding is currently available to address limited maintenance needs within the trail corridor. Staffing is available to conduct at least semi-annual monitoring of trail activities and conditions on and surrounding the trail. The Refuge would however benefit from the proposal in the Sonny Bono Salton Sea NWR Complex Comprehensive Conservation Plan to increase current staffing levels within the Complex to include a dual function refuge manager/Federal wildlife officer. As of FY 2013, law enforcement activities on the Refuge are provided by the Service’s Southern California Federal Wildlife Zone Officer, who is also responsible for law enforcement related activities on several other Refuges in southern California. The new dual function position would provide a greater Service presence on the Refuge, facilitate increased monitoring of trail activity, and increased monitoring of the effects of trail activity on refuge resources.

Table 1 Annual Staff Involvement Associated with Managing Trail Use on the Refuge	
Staff Responsibilities	Annual Administrative/Management Staff Time
Refuge Manager [†] – Oversight of activities on the Refuge	0.01 FTE*
Wildlife Refuge Specialist – Periodically monitor activities and conditions on and surrounding the trail corridor	0.10 FTE
Southern California Federal Wildlife Zone Officer [†] – Enforce regulations related to trail use on the Refuge	0.09 FTE
REQUIRED ANNUAL STAFF TIME	0.20 FTE

*FTE (full time equivalent) [†] If a dual function Refuge Manager/Federal Wildlife Officer is added as a position for the Complex, these responsibilities would be combined and require 0.10 FTE for the dual function position

Anticipated Impacts of the Use:

The potential adverse effects of trail use on the Refuge include disturbance (e.g., noise, human and horse movement) to birds and other wildlife species that occupy the creosote bush scrub habitat adjacent to the trail; trampling of reptiles and invertebrates that may be present on the trail; and disturbance to and trampling of plants and wildlife elsewhere on the Refuge due to unauthorized off-trail activities (Purdy et al. 1987, Pomerantz et al. 1988, Knight and Cole 1995). The potential effects of disturbance on the species supported by the Refuge due to trail use are not however considered significant because the vast majority of the Refuge is closed to public use, providing significant acreage of undisturbed habitat to support native plants and wildlife. Also, because the trail is not heavily traveled, the potential for direct mortality to reptiles and invertebrates is low.

Access onto the Refuge via the designated trail corridor does provide the opportunity for unauthorized off-trail activities. Such activities can result in disturbance to wildlife and disturbance to native soils. Soil disturbance within native habitat areas can contribute to the spread of invasive, non-native weeds by creating conditions favorable to seed germination (USFWS 2013). Periodic monitoring of the trail and adjacent habitat areas has not to date identified significant issues related to off-trail activity. However, if this situation were to change, measures such as the installation of additional regulatory signage, fencing, and/or additional surveillance of trail activities would be implemented.

Potential Effects to Listed and Sensitive Species. Human activity can have adverse impacts to listed species, particularly when disturbance occurs in harsh environments such as the aeolian sand habitats present on the Refuge. Of particular concern are potential disturbances to the endangered Coachella Valley milk-vetch (*Astragalus lentiginosus var. coachellae*) and the threatened Coachella Valley fringe-toed lizard (*Uma inornata*). Both species are supported by the active desert dune habitat that occurs on the Refuge, as are a number of other sensitive species identified in the Coachella Valley Multiple Species Habitat Conservation Plan (CVAG 2007). The fact that the trail is situated well to the north of the Refuge's sensitive dune habitat minimizes the potential for any significant adverse effects to listed and sensitive species supported by aeolian sand habitats.

One factor that could affect core habitat for listed and sensitive species is the introduction of invasive plants into the area. A variety of studies have shown that non-native plant seeds will germinate in the laboratory after digestion by horses (Gower 2008, Quinn et al. 2008), which raises concern regarding the potential effect of equestrian activity on the Refuge. Observations by Refuge staff of the existing trail corridor do not indicate an increased presence of invasive plants along the edges of the trail, and according to the available literature, little research has been done to determine the extent to which non-native plant seeds distributed along a trail via horse manure actually germinate (Quinn et al. 2008, Gower 2008). Continued monitoring by Refuge staff will enable early detection of potential invasive plant concerns along the trail corridor. If weeds become an issue along the trail, the compatibility of equestrian use on the Refuge would require reevaluation.

Public Review and Comment:

The existing trail on the Coachella Valley NWR was addressed during the public scoping process for the Sonny Bono Salton Sea NWR Complex Comprehensive Conservation Plan (CCP). To initiate the CCP process, a Notice of Intent was published in the Federal Register on October 15, 2010 (65 FR 39172). At that time, written comments were solicited. In September 2010, two scoping meetings were held, one in Palm Desert and one in Calipatria, to receive input from the public on issues related to the future management of the Sonny Bono Salton Sea and Coachella Valley NWRs. Approximately 20 people attended the meeting held in Palm Desert and 10 people attended the Calipatria meeting.

A CCP web page (www.saltonsea.fws.gov) was established to provide the public with specific information regarding the topics addressed at the scoping meetings and to present information regarding when and where to provide comments. Two Planning Updates have also been prepared to summarize the progress of the CCP and to discuss specific issues related to the planning process. Planning Updates are distributed to more than 100 individuals and organizations representing interested members of the public, conservation organizations, hunting, fishing and boating organizations, public agencies, municipalities, special districts, Tribes, and adjoining property owners. We received more than 50 letters, emails, and phone calls between October 2010 and March 2012.

This Compatibility Determination for the continued use of an equestrian/hiking trail on the Coachella Valley NWR has been made available for public review and comment as Appendix A of the Sonny Bono Salton Sea National Wildlife Refuge Complex Draft Comprehensive Conservation Plan and Environmental Assessment (USFWS 2013).

Determination:

Use is Not Compatible

Use is Compatible with the Following Stipulations

Stipulations Necessary to Ensure Compatibility:

To minimize the potential for adverse effects to Refuge resources from activities associated with the equestrian/hiking trail that extends through the Refuge, the following measures would be implemented:

- Enforce the reasonable and prudent measures outlined in the biological opinion for this trail including restricting all trail use to the designated corridor, clearly marking the trail corridor by posting signs every 250 feet, prohibiting dogs and other pets within the Refuge boundary, and periodically monitoring trail use for compliance of these regulations.
- Maintain bollards or other barriers, as well as fencing, when necessary, to prohibit off-road vehicle access onto the Refuge from the trail.
- Periodically patrol the trail and assess the area around the trail to determine if unauthorized activity is occurring off trail; if so, implement appropriate measures (e.g., signage, fencing, trail closure) to minimize off trail impacts from hikers and equestrians.
- Periodically assess the extent of invasive plants occurring along the trail corridor and implement control as necessary to prevent the spread of invasive weeds further into the Refuge.
- If monitoring identifies impacts from the trail that are resulting in adverse effects to Refuge resources, work with CVAG and others to identify an alternative alignment for the trail that does not traverse Refuge lands.

Justification:

The existing trail corridor on the Refuge has received moderate use by equestrians and hikers since the early 1990s. Ongoing monitoring of this portion of the Refuge indicates no adverse effects to native habitat areas as a result of this use. The trail corridor will continue to be monitored to ensure that the activities occurring on the trail are not adversely affecting the listed and sensitive species supported on the Refuge. The implementation of the stipulations presented here will ensure continued compatibility with Refuge purposes. In addition, the trail provides the public with opportunities to experience the open desert habitat protected on the Refuge, as well to observe some of the Refuge's native plants and wildlife. Through these experiences, the public can gain a greater understanding of the importance of protecting native desert habitats and their associated wildlife species.

The overall benefit of facilitating this use on the Refuge is the development of public support for and appreciation of the actions implemented on the Refuge and throughout the Refuge System to manage, conserve, and protect fish and wildlife resources. As such, this use, as described, is determined to be compatible, as it is not materially interfering with or detracting from the purposes for which the Refuge was established.

Mandatory Re-Evaluation Date:

Mandatory 15-year Re-Evaluation Date (for priority public uses)

Mandatory 10-year Re-Evaluation Date (for all uses other than priority public uses)

NEPA Compliance for Refuge Use Decision:

- Categorical Exclusion without Environmental Action Statement
- Categorical Exclusion and Environmental Action Statement
- Environmental Assessment and Finding of No Significant Impact
- Environmental Impact Statement and Record of Decision

References Cited:

Bureau of Land Management (BLM). 1989. Final Environmental Assessment Coachella Valley Preserve Public Equestrian and Hiking Trail System. Prepared for the Coachella Valley Preserve Steering Committee. April.

Coachella Valley Association of Governments (CVAG). 2007. Final Recirculated Coachella Valley Multiple Species Habitat Conservation Plan. Sept.

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Knight, R. L. and D. N. Cole. 1995. Wildlife responses to recreationists. In *Wildlife and recreationists*, edited by R. L. Knight and K. J. Gutzwiller. Covelo, California: Island Press.

Pomerantz, G. A., D. J. Decker, G. R. Goff, and K. G. Purdy. 1988. Assessing impact of recreation on wildlife: A classification scheme. *Wildlife Society Bulletin* 16:58-62.

Purdy, K. G., G. R. Goff, D. J. Decker, G. A. Pomerantz, and N. A. Connelly. 1987. A guide to managing human activity on national wildlife refuges. Ft. Collins, Colorado: Office of Information Transfer, U.S. Fish and Wildlife Service.

Quinn, L, M. Kolipinski, V. Coelho, B. Davis, J. Vianney, O. Batjargal, M. Alas, and S. Ghosh. 2008. Germination of Invasive Plant Seeds after Digestion by Horses in California. *Natural Areas Journal*, 28(4):356-362.

U.S. Fish and Wildlife Service. 2013. Sonny Bono Salton Sea National Wildlife Refuge Complex Draft Comprehensive Conservation Plan and Environmental Assessment.

Refuge Determination:

Prepared by:

(Signature)

(Date)

Project Leader
Approval:

(Signature)

(Date)

Concurrence:

Refuge Supervisor:

(Signature)

(Date)

Assistant Regional
Director, Refuges:

(Signature)

(Date)

FINDING OF APPROPRIATENESS OF A REFUGE USE

Written Justification

Refuge Name: Coachella Valley National Wildlife Refuge

Use: Equestrian/Hiking Trail

Justification for Determining that this Use is an Appropriate Use for the Refuge:

Although trail use is not identified as a wildlife-dependent recreational use, trails do provide opportunities for the public to participate in a number of wildlife-dependent recreational uses including wildlife observation, photography, interpretation, and environmental education. The regional trail that extends through the Coachella Valley NWR provides the public with a rare opportunity to observe from a distance the significant sand dune and sand field habitats protected on the Refuge. Providing the public with such opportunities when they do not compromise habitat quality or species recovery helps to build support for protecting important habitats, as well as to promote an appreciation for the unique habitats found within the larger Coachella Valley Preserve area. Sufficient restrictions related to the uses permitted on the trail and the prohibition of off-trail use have and will continue to minimize the potential for disturbance to listed and sensitive species and their habitats, therefore, in my professional judgment the existing trail that extends through the Refuge is an appropriate use.

Refuge Manager: _____ Date: _____

Refuge Supervisor: _____ Date: _____

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: Coachella Valley National Wildlife Refuge

Use: Equestrian/Hiking Trail

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	✓	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	✓	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?	✓	
(d) Is the use consistent with public safety?	✓	
(e) Is the use consistent with goals and objectives in an approved management plan or other document?	✓	
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	✓	
(g) Is the use manageable within available budget and staff?	✓	
(h) Will this be manageable in the future within existing resources?	✓	
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?	✓	
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?	✓	

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will **generally** not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes No

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate _____

Appropriate

Refuge Manager: _____

Date: _____

If found to be **Not Appropriate**, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found **Not Appropriate** outside the CCP process, the refuge supervisor must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence.

Refuge Supervisor: _____

Date: _____