

# ***Appendix K - N***

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# ***Appendix K***

## ***Federal Laws and Executive Orders Relevant to the San Diego National Wildlife Refuge***

# *Appendix K: Federal Laws and Executive Orders Relevant to the San Diego National Wildlife Refuge*

Legal mandates and policies of the U.S. Fish and Wildlife Service (Service) govern the Service’s planning and management of the National Wildlife Refuge System (Refuge System). A description of these legal mandates can be found at the “Division of Congressional and Legislative Affairs, USFWS” Web site (<http://www.fws.gov/laws/Lawsdigest.html>). In addition, the Service has developed policies to guide NWRS planning and management, which can be found at the “NWRS Policies Web site” (<http://www.fws.gov/refuges/policiesandbudget/refugepolicies.html>).

## **Laws and Executive Orders Applicable to the San Diego NWR CCP**

All projects and step-down plans described in a CCP will be required to comply with the National Wildlife Refuge System Improvement Act of 1997 and the National Environmental Policy Act (described in Chapter 1 of the CCP), as well as a variety of other Federal regulations, Executive Orders (Eos), and legislative acts. A brief description of the laws and EOs applicable to the San Diego NWR CCP, as well as a statement indicating how each relates to the CCP, is provided in Table 1.

| <b>Table 1<br/>Applicable Laws and Executive Orders</b>                    |   |  |
|--|---|--|
| <b>Law, Regulation, or Executive Order</b>                                 | <b>Description</b>  | <b>Relation to the CCP</b>   |
| <b>Agency Coordination</b>   |   |  |
| Executive Order No. 12372, Intergovernmental Review of Federal Programs    | Requires that Federal agencies afford other agencies review of documents associated with Federal programs.  | Availability of the EA was advertised in the Federal Register; interested Federal, State, and local agencies and tribes were provided notices.   |
| <b>Human Rights</b>  |   |  |
| Architectural Barriers Act of 1968, as amended (42 U.S.C. §§ 4151 et seq.) | Requires all new federal buildings and facilities constructed or altered with federal funds since 1968 to be accessible to and usable by individuals with disabilities. Also requires that modifications be made to existing facilities to ensure equal access for employees or visitors. | New buildings on the Refuge will comply with these requirements. New trails and outdoor facilities will be laid out and designed per the draft accessibility guidelines for outdoor developed areas. |

| <b>Table 1<br/>Applicable Laws and Executive Orders</b>                   |  |  |
|---|--|--|
| <b>Law, Regulation, or Executive Order</b>                                | <b>Description</b>   | <b>Relation to the CCP</b>   |
| Executive Order 12898, Environmental Justice                              | Mandates Federal agencies to achieve environmental justice by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. | Implementing the CCP will not have a disproportionately high and adverse human health or environmental effect on minority or low-income populations. The CCP promotes compatible uses of the land that protect the natural resources and provide opportunities for wildlife-dependent recreational uses. |
| <b>Effects on the Environment</b>   |  |  |
| National Environmental Policy Act of 1969 (42 USC 4321 et seq.) (NEPA)    | Requires analysis, public comment, and reporting for environmental impacts of Federal actions.   | An EA has been prepared jointly with the draft CCP and the public has been notified of its availability for review and comment.  |
| <b>Biological Resources</b>   |  |  |
| Endangered Species Act of 1973 (16 USC 1531 et seq.), as amended (ESA)    | Provides for protection of plants, fish, and wildlife that have a designation as threatened or endangered.   | An Intra-Service Section 7 biological evaluation has been completed that evaluates the effects of the proposed actions on endangered and threatened species.   |
| Fish and Wildlife Act of 1956 (16 USC 742a-743j, not including 742d-742l) | Provides Secretary of Interior with authority to protect and manage fish and wildlife resources.   | The Service will continue to comply with this Act under the CCP.   |
| Fish and Wildlife Conservation Act of 1980 (16 USC 661-667e), as amended  | Requires the Service to monitor non-game bird species, identify species of management concern, and implement conservation measures to preclude the need for listing under ESA.   | Listed and MSCP-covered species will be monitored per adopted protocols; measures to protect and manage species of concern, along with the conservation of large blocks of native habitat, will assist in conserving trust species.  |
| Fish and Wildlife Coordination Act of 1958                                | Requires equal consideration and coordination of wildlife conservation with other water resource development programs.   | The CCP acknowledges the need to coordinate Refuge actions with the agencies that maintain reservoirs downstream of the Refuge.  |

| <b>Table 1<br/>Applicable Laws and Executive Orders</b>  |   |  |
|--|---|--|
| <b>Law, Regulation, or Executive Order</b>   | <b>Description</b>  | <b>Relation to the CCP</b>   |
| Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds. Jan. 10, 2001. | Instructs Federal agencies to conserve migratory birds in part through the incorporation of strategies and recommendations found in Partners in Flight Bird Conservation Plans, the North American Waterfowl Plan, the North American Waterbird Conservation Plan, and the United States Shorebird Conservation Plan into agency management plans and guidance documents. | The Service has incorporated the strategies and recommendations of the listed management plans into the CCP to conserve migratory birds. The Service will continue to comply with this Order under the CCP.    |
| Executive Order 13112, Invasive Species  | Federal agencies are required to use relevant programs and authorities to prevent, control, monitor, and research invasive species and coordinate complementary, cost-efficient, and effective activities concerning invasive species by relying on existing organizations already in place that address invasive species issues.   | The CCP addresses the need to work with others to address invasive species issues on the Refuge. In addition, an Integrated Pest Management Plan has been prepared for the Refuge in association with the CCP. |
| The Bald and Golden Eagle Protection Act of 1940 (16 USC 668 et seq.)                                  | Provides protection for bald and golden eagles.   | Measures are addressed in the CCP to protect nesting golden eagles on the Refuge.  |
| Migratory Bird Treaty Act of 1918, as amended (MBTA)   | Provides protection for bird species that migrate across state and international boundaries.  | The Service will continue to comply with this Act under the CCP.   |
| Federal Noxious Weed Act of 1990   | Requires the use of integrated management systems to control or contain undesirable plant species, and an interdisciplinary approach with the cooperation of other Federal and State agencies.  | An Integrated Pest Management Plan has been prepared for the Refuge in association with the CCP.   |
| Emergency Wetlands Resources Act of 1986   | Promotes the conservation of migratory waterfowl and offsets or prevent the serious loss of wetlands by the acquisition of wetlands and other essential habitats.   | The CCP includes strategies to protect, restore, and enhance the wetlands that occur on the Refuge.  |

| <b>Table 1<br/>Applicable Laws and Executive Orders</b>  |   |   |
|--|---|---|
| <b>Law, Regulation, or Executive Order</b>   | <b>Description</b>  | <b>Relation to the CCP</b>  |
| <b>Cultural Resources</b>  |   |   |
| Antiquities Act of 1906  | This act authorizes the scientific investigation of antiquities on Federal land. It prohibits and provides penalties for unauthorized search for or collection of artifacts or other objects of scientific interest. The Act also authorizes the President to establish national monuments and cultural areas on Federal lands. | The Service will continue to comply with this Act under the CCP.  |
| Native American Graves Protection and Repatriation Act of 1990 (PL 101-601; 25 USC 3001 et seq.)(NAGPRA) | Regulations for the treatment of Native American graves, human remains, funeral objects, sacred objects, and other objects of cultural patrimony. Requires consultation with Native American Tribes during Federal project planning.  | The San Diego NWR Complex is initiating discussions with the appropriate Native American Tribes to develop an MOU to implement the inadvertent discovery clause of NAGPRA.      |
| Executive Order No. 11593, Protection and Enhancement of the Cultural Environment                        | Requires that if the Service proposes any activities that may affect archaeological or historical sites, the Service will consult with Federal and State Historic Preservation Officers to comply with Section 106 of the National Historic Preservation Act of 1966, as amended.   | Cultural resources that have been identified will be protected, and steps to avoid any inadvertent impacts to subsurface deposits that have yet to be identified will be taken. |
| Executive Order 13007, Indian Sacred Sites. 24 May, 1996   | Provides for access to, and ceremonial use of, Indian sacred sites on Federal lands used by Indian religious practitioners and direction to avoid adversely affecting the physical integrity of such sites.   | The Tribes have been contacted regarding the CCP and have been invited to provide information necessary to protect sacred sites and other resources.                            |

| <b>Table 1<br/>Applicable Laws and Executive Orders</b>  |  |   |
|--|--|---|
| <b>Law, Regulation, or Executive Order</b>   | <b>Description</b>   | <b>Relation to the CCP</b>  |
| Archaeological Resources Protection Act of 1979 (PL 96-95; 93 STAT 722; 16 USC 470aa-47011), as amended (ARPA)         | Protects materials of archeological interest from unauthorized removal or destruction and requires Federal managers to develop plans to locate archaeological resources.   | Cultural resources that have been identified will be protected, and steps to avoid any inadvertent impacts to subsurface deposits that have yet to be identified will be taken. The Service will continue to comply with this Act under the CCP.                            |
| American Indian Religious Freedom Act 1978 (PL 95-341; 92 STAT 469; 42 USC 1996)                                       | Provides for freedom of Native Americans to believe, express, and exercise their traditional religion, including access to important sites.  | The Tribes have been contacted regarding the CCP and have been invited to provide information necessary to protect sacred sites and other resources.  |
| National Historic Preservation Act of 1966 (PL 89-665; 50 STAT 915; 16 USC 470 et seq.; 36 CFR 800), as amended (NHPA) | Requires Federal agencies to consider the effects of any actions or programs on historical properties.   | The EA prepared to accompany the draft CCP addresses the potential effects of the actions proposed in the CCP and includes measure to ensure that no adverse effects to historical properties will occur.   |
| Archaeological and Historic Preservation Act of 1974 (PL 93-291; 88 STAT 174; 16 USC 469)                              | Provides for the preservation of historical buildings, sites, and objects of national significance.  | Potential historical resources have been identified in the CCP and those of national significance will be preserved. The Service will continue to comply with this Act under the CCP.   |
| Curation of Federally-Owned and Administered Archaeological Collections (36 CFR 79)                                    | Requires Federal agencies to ensure proper care of federally owned and administered archaeological collections, including ensuring that significant prehistoric and historic artifacts, and associated records, are deposited in an institution with adequate long-term curatorial capabilities that can provide professional, systematic, and accountable curatorial services on a long-term basis. | Archaeological resources from the San Diego NWR that may become part of a federally owned and administered archaeological collection would be curated at the San Diego Archaeological Center, which accepts for accession archaeological collections from federal agencies. |

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|--|---|--|
| <b>Law, Regulation, or Executive Order</b>   | <b>Description</b>  | <b>Relation to the CCP</b>   |
| <b>Tribal Coordination</b>   |   |  |
| Executive Order 13175, Consultation and Coordination with Indian Tribal Governments                                      | Requires Federal agencies to implement an accountable process to ensure meaningful and timely input by tribal officials as policies are developed that have tribal implications.  | Tribal governments in San Diego County were consulted prior to publication of the Notice of Intent and have continued to be updated on the progress of the CCP.  |
| <b>Paleontological Resources</b>   |   |  |
| Paleontological Resources Preservation Act of 2009 (P.L. 111-11, Title VI, Subtitle D)                                   | Requires the management and protection of paleontological resources on federal lands using scientific principals and expertise; requires the development of plans for the inventory, monitoring, and scientific and educational use of paleontological resources; addresses the collection and curation of resources; identifies prohibited acts, and establishes criminal and civil penalties. | The potential effects of Refuge actions on paleontological resources have been evaluated and there is a low potential for these resources to be present on the Refuge. The Service will however comply with the provision of this Act as applicable under the CCP. |
| <b>Hazardous Materials</b>   |   |  |
| Oil Pollution Act of 1990 (PL 101-380; 33 USC 2701, et seq.)   | Provides oil pollution policies and protections.  | The Service will continue to comply with this Act under the CCP.   |
| Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (PL 96-510; 42 USC 9601, et seq.) (CERCLA) | Provides mechanism for hazardous waste cleanup.   | The CCP proposes continued coordination with the Contaminants Program of the Carlsbad Fish and Wildlife Office when issues related to contaminants are identified in the project area.   |

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|--|---|--|
| <b>Law, Regulation, or Executive Order</b>   | <b>Description</b>  | <b>Relation to the CCP</b>   |
| <b>Water Quality</b>   |   |  |
| The Clean Water Act of 1972, Section 404 (33 USC 1344 et seq.), as amended   | Establishes a program to regulate the discharge of dredged or fill material into waters of the United States (U.S.), including wetlands and requires a permit from the U.S. Army Corps of Engineers before dredged or fill material may be discharged into waters of the U.S. | The CCP requires the implementation of best management practices during ground-disturbing activities to minimize siltation and run-off into adjacent wetlands, as well as during the application of pesticides, all to protect water quality.  |
| Clean Water Act, Section 401   | Requires that an applicant for a federal license or permit provide a certification that any discharges will comply with the Act, including water quality standard requirements.   | A Stormwater Pollution Prevention Plan will be prepared in compliance with the regulations of the California State Water Board for projects requiring grading or other significant land disturbance.   |
| <b>Land and Water Use</b>  |   |  |
| The National Wildlife Refuge System Administration Act of 1966 (16 USC 668dd-668ee), National Wildlife Refuge System Improvement Act of 1997 (PL 105-57) | Administration, management, and planning for National Wildlife Refuges, Amends the National Wildlife Refuge System Administration Act of 1966. Requires development of CCPs for all refuges outside of Alaska.  | The Service determined that hunting, wildlife observation, photography, environmental education, interpretation, research, and recreational trails are compatible with the purposes for which the Refuge was established. Implementation of the CCP will therefore satisfy the intent of this Act. |
| Executive Order No. 11990, Protection of Wetlands  | Provides for the conservation of the natural and beneficial values of wetlands and their associated habitats.   | The CCP includes strategies to protect, restore, and enhance the wetlands that occur on the Refuge.  |

| <b>Table 1<br/>Applicable Laws and Executive Orders</b>   |  |  |
|---|--|--|
| <b>Law, Regulation, or Executive Order</b>  | <b>Description</b>   | <b>Relation to the CCP</b>   |
| Executive Order No. 11988, Floodplain Management  | Provides for the support, preservation, and enhancement of the natural and beneficial values of floodplains.   | Structures, such as trail bridges, that have the potential to influence the movement of floodwater will be designed to take into consideration the hydrology of the site, thus the proposed action is consistent with this Order.                        |
| Executive Order No. 12996, Management and General Public Use of the National Wildlife Refuge System | Directs the Secretary of the Interior to recognize compatible wildlife-dependent recreational activities involving hunting, fishing, wildlife observation and photography, and environmental education/interpretation as priority general public uses on refuges.  | The CCP addresses the compatibility of these uses on the San Diego NWR.  |
| The Refuge Recreation Act of 1962, as amended   | Provides for recreation use that is compatible with the primary purpose of a refuge.   | The Service determined that hunting, wildlife observation, photography, environmental education, interpretation, and recreational trails are compatible with the purposes for which the Refuge was established.  |
| Fish and Wildlife Improvement Act of 1978   | Improves administration of fish and wildlife programs and amends earlier laws including Refuge Recreation Act, NWRS Administration Act, and Fish and Wildlife Act of 1956. Authorizes the Secretary to accept gifts or real and personal property on behalf of the U.S. Also authorizes use of volunteers on Service projects and appropriations to carry out a volunteer program. | The CCP acknowledges the continued acquisition of lands within the approved Refuge boundary and that some parcels may come into the Refuge as a gift or donation. Volunteers will also be an important aspect of Refuge management on the San Diego NWR. |

### **Refuge Policies that Guide Refuge Planning and Management**

Statutory authority for Service management and associated habitat management planning on units of the NWRS is derived from the National Wildlife Refuge System Improvement Act. Section 4(a)(3) of the Improvement Act states, “With respect to the National Wildlife Refuge System, it is the policy of the United States that – (A) each refuge shall be managed to fulfill the mission of the System, as well as the specific purposes for which that refuge was established . . .”

The Improvement Act provides clear standards for management, use, planning, and growth of the NWRS. Its passage followed the promulgation of Executive Order 12996 (April 1996), “Management of Public Uses on National Wildlife Refuges,” reflecting the importance of conserving natural resource for the benefit of present and future generations of people. The Improvement Act recognizes that wildlife-dependent recreational uses involving hunting, fishing, wildlife observation and photography, and environmental education and interpretation, when determined to be compatible with the mission of the NWRS and purposes of the Refuge, are legitimate and appropriate public uses of the Refuge System.

The following policies have been developed to help guide the implementation of the Improvement Act and the administration of Refuge lands.

#### **Compatibility Policy**

The Improvement Act states, “The Secretary shall not initiate or permit a new use of a Refuge or expand, renew, or extend an existing use of a Refuge, unless the Secretary has determined that the use is a compatible use and that the use is not inconsistent with public safety.” The Improvement Act also states that “compatible wildlife-dependent recreational uses [hunting, fishing, wildlife observation and photography, or environmental education and interpretation] are the priority general public uses of the System and shall receive priority consideration in Refuge planning and management; and when the Secretary determines that a proposed wildlife-dependent recreational use is a compatible use within a refuge, that activity should be facilitated, subject to such restrictions or regulations as may be necessary, reasonable, and appropriate.”

In accordance with the Improvement Act, the Service has adopted a Compatibility Policy (*Fish and Wildlife Service Manual, Part 603 FW 2*) that includes guidelines for determining if a use proposed on a NWR is compatible with the purposes for which the refuge was established. A compatible use is defined in the policy as a proposed or existing wildlife-dependent recreational use or any other use of a NWR that, based on sound professional judgment, will not materially interfere with or detract from the fulfillment of the NWRS mission or the purposes for which the Refuge was established. The Policy also includes procedures for documentation and periodic review of existing refuge uses.

When a determination is made as to whether a proposed use is compatible or not, this determination is provided in writing and is referred to as a compatibility determination. An opportunity for public review and comment is required for all compatibility determinations. Compatibility determinations prepared concurrently with a CCP are included in the public review process for the draft CCP and associated NEPA document. The Refuge has completed draft compatibility determinations for hunting, fishing, wildlife observation, photography, interpretation, and environmental education, as well as trail use and research. These compatibility determinations are available for review and comment in Appendix A.

### **Appropriate Use Policy**

Refuges are first and foremost national treasures for the conservation of wildlife. Through careful planning, consistent system-wide application of regulations and policies, diligent monitoring of the impacts of uses on wildlife resources, and preventing or eliminating uses not appropriate to the Refuge System, the conservation mission of the Refuge System can be achieved, while also providing the public with lasting opportunities to enjoy and appreciate the resources protected within the Refuge System. The Appropriate Use Policy (*Fish and Wildlife Service Manual, Part 603 FW 1*) provides a national framework for determining appropriate refuge uses and outlines the procedures refuge managers must follow when deciding if a new or existing use is an appropriate use on the refuge. If an existing use is not appropriate, the refuge manager will eliminate or modify the use as expeditiously as practicable. If a proposed use is not determined to be appropriate, the use will not be allowed and a compatibility determination will not be prepared.

- 1) To be considered appropriate, a proposed or existing use on a refuge must meet at least one of the four conditions described below. All uses determined to be appropriate are also reviewed for compatibility.
  - 2) The use is a wildlife-dependent recreational use as identified in the Improvement Act (i.e., hunting, fishing, wildlife observation and photography, and environmental education and interpretation).
  - 3) The use contributes to fulfilling the refuge purpose(s), the Refuge System mission, or goals or objectives described in an approved refuge management plan.
  - 4) The use involves the take of fish and wildlife under State regulations. (States have regulations concerning take of wildlife that includes hunting, fishing, and trapping. Take of wildlife under such regulations is considered appropriate; however, the refuge manager must determine if the activity is compatible before allowing it on a refuge.)
  - 5) The use has been found to be appropriate after considering the following criteria:
    - a) The Service has jurisdiction over the use. (If the Service does not have jurisdiction over the use or the area where the use would occur, no authority exists to consider the use.)
    - b) The use complies with all applicable laws and regulations (e.g., Federal, State, tribal, and local). (Uses prohibited by law are not appropriate.)
    - c) The use is consistent with applicable Executive Orders and Department and Service policies. (If a use conflicts with an applicable Executive Order or Department or Service policy, the use is not appropriate.)
    - d) The use is consistent with public safety. (If a use creates an unreasonable level of risk to visitors or refuge staff, or if the use requires refuge staff to take unusual safety precautions to assure the safety of the public or other refuge staff, the use is not appropriate.)

- e) The use is consistent with refuge goals and objectives in an approved management plan or other document. (If a use, either itself or in combination with other uses or activities, conflicts with a refuge goal, objective, or management strategy, the use is generally not appropriate.)
- f) The use has been previously considered in a refuge planning process or under this policy and was rejected as not appropriate. (Unless circumstances or conditions have changed significantly, the use need not be considered further.)
- g) The use would not divert management efforts or resources away from the proper and reasonable management of a refuge or the implementation of a wildlife-dependent recreational use. (A use, other than a wildlife-dependent recreational uses [i.e., hunting, fishing, wildlife observation and photography, and environmental education and interpretation], that diverts available resources is generally not appropriate.)
- h) The use will be manageable in the future within existing resources. (If a use would lead to recurring requests for the same or similar activities that will be difficult to manage in the future, then the use is not appropriate. However, if the use can be managed so that impacts to natural and cultural resources are minimal or inconsequential, or if clearly defined limits can be established, then the use may be further considered.)
- i) The use contributes to the public's understanding and appreciation of the refuge's natural or cultural resources, or is beneficial to the refuge's natural or cultural resources. (If this is not the case, such a use would generally be considered not appropriate.)
- j) The use can be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality, compatible, wildlife-dependent recreation into the future. (If this is not the case, such a use would generally be considered not appropriate.)

This Policy also states that if, during preparation of the CCP, a previously approved use can no longer be considered appropriate on the refuge, the reasons for this determination must be clearly explained to the public and a description of how the use will be eliminated or modified must also be provided. The documentation for both appropriateness findings and compatibility determinations are provided in Appendix A.

Although a refuge use may be both appropriate and compatible, the refuge manager retains the authority to not allow the use or to modify the use. For example, on some occasions, two appropriate and compatible uses may be in conflict with each other. In these situations, even though both uses are appropriate and compatible, the refuge manager may need to limit or entirely curtail one of the uses in order to provide the greatest benefit to refuge resources and the public.

#### **Biological Integrity, Diversity and Environmental Health Policy**

Section 4(a)(4)(B) of the Improvement Act states, "In administering the System, the Secretary shall . . . ensure that the biological integrity, diversity, and environmental health of the System are maintained for the benefit of present and future generations of Americans . . ." This

legislative mandate represents an additional directive to be followed while achieving refuge purposes and the NWRS mission. The Improvement Act requires the consideration and protection of a broad spectrum of fish, wildlife, plant and habitat resources found on a refuge. To implement this mandate, the Service has issued the Biological Integrity, Diversity and Environmental Health Policy (*Fish and Wildlife Service Manual, Part, 601 FW 3*), which provides policy for maintaining and restoring, where appropriate, the biological integrity, diversity, and environmental health of the NWRS. This policy provides a refuge manager with an evaluation process to analyze his/her refuge and recommend the best management direction to prevent further degradation of environmental conditions; and where appropriate, and in concert with refuge purposes and the NWRS mission, to restore lost or severely degraded resource components. Within section 3[3.7B] of the policy, the relationships among biological integrity, diversity, and environmental health; the NWRS mission; and refuge purposes are explained as follows, "...each refuge will be managed to fulfill refuge purpose(s) as well as to help fulfill the System mission, and we will accomplish these purposes(s) and our mission by ensuring that the biological integrity, diversity, and environmental health of each refuge are maintained and where appropriate, restored."

When evaluating the appropriate management direction for refuges, refuge managers will use sound professional judgment to determine their refuge's contribution to biological integrity, diversity, and environmental health at multiple landscape scales. Sound professional judgment incorporates field experience, an understanding of the refuge's role within an ecosystem, and the knowledge of refuge resources, applicable laws, and best available science, including consultation with resource experts both inside and outside of the Service.

The priority public uses of the NWRS are not in conflict with this policy when they have been determined to be compatible. The directives of this policy do not envision or necessitate the exclusion of visitors or the elimination of visitor use structures from refuges; however, maintenance and/or restoration of biological integrity, diversity, and environmental health may require spatial or temporal zoning of visitor use programs and associated infrastructures. General success in maintaining or restoring biological integrity, diversity, and environmental health will produce higher quality opportunities for wildlife-dependent recreational uses.

### **Wilderness Stewardship Policy**

The Wilderness Stewardship Policy, described in Part 610 FW 1 – 5 of the Fish and Wildlife Service Manual, provides an overview and foundation for implementing the National Wildlife Refuge System Administration Act of 1966, as amended, and the Wilderness Act of 1964. In the Wilderness Act, Congress called for the establishment of a National Wilderness Preservation System to secure an "enduring resource of wilderness" for the American public. Wilderness, as defined in Section 2(c) of the Wilderness Act, is an area that "... generally appears to have been affected primarily by the forces of nature with the imprint of man's work sustainably unnoticeable . . . has outstanding opportunities for solitude or a primitive and unconfined type of recreation . . . [and] has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition..."

The Wilderness Stewardship Policy provides refuge managers with guidance on conducting wilderness reviews on Refuge System lands to determine if these lands should be recommended for wilderness designation. It also establishes policy for managing wilderness study areas and recommended and proposed wilderness. The Policy also prescribes how refuge managers will preserve the character and qualities of designated wilderness while managing for refuge establishing purpose(s).

Part 610 FW 4 of the Service Manual describes the wilderness review process, a process that must be followed when identifying and recommending for congressional designation Refuge System lands and waters that merit inclusion in the National Wilderness Preservation System. Wilderness reviews are to be conducted as part of a scheduled CCP or CCP revision, but can also be conducted at any time if significant new information becomes available, ecological conditions change (including the restoration of significant acreage to natural conditions so that area now meets the definition of wilderness), or major refuge expansion occurs. The process must include interagency and tribal coordination, public involvement, and NEPA compliance. The wilderness review conducted for the San Diego NWR as part of the CCP process is presented in Appendix I of this document.

# *Appendix L*

## *Wilderness Inventory*

# *Appendix L: Wilderness Inventory*

## **Introduction**

A National Wilderness Preservation System composed of federally owned areas designated by Congress as “wilderness areas” has been created as a result of the passage of the Wilderness Act of 1964 (16 USC 1131-1136, 78 Stat. 890). The purpose of this act is “to secure for the American people of present and future generations the benefits of an enduring resource of wilderness.” Areas designated as wilderness are to be administered “for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness.” No Federal lands are to be designated as “wilderness areas” except as provided for in the act.

Consistent with the intent of the Wilderness Act, wilderness reviews are a required element of CCPs and are conducted in accordance with the refuge planning process outlined in Section 602 FW 1 and 3 of the Service Manual, including public involvement and NEPA compliance. The three phases of the wilderness review are: 1) inventory; 2) study; and 3) recommendation.

If, through the inventory process, a determination is made that a refuge or area on a refuge meets the criteria for wilderness, the area, referred to as a wilderness study area (WSA), is further evaluated as part of the study phase. In the study phase, all values (e.g., ecological, recreational, cultural, economic, symbolic), resources (e.g., wildlife, water, vegetation, minerals, soils), public uses, and refuge management activities within the area are analyzed. This analysis also includes an evaluation of whether the WSA can be effectively managed to preserve its wilderness character. These elements are analyzed through the refuge planning process to determine the most appropriate management direction for the WSA.

The recommendation phase consists of forwarding or reporting recommendations for wilderness designation from the Director through the Secretary of the Interior and the President to Congress in a wilderness study report.

If the inventory does not identify any areas that meet the WSA criteria, these findings are documented in the administrative record for the CCP, fulfilling the planning requirement for a wilderness review. We inventoried the lands and waters within the San Diego NWR and found no areas that meet the eligibility criteria for a WSA as defined by the Wilderness Act. This appendix summarizes the wilderness inventory for the San Diego NWR.

## **Inventory Criteria**

The wilderness inventory is a broad look at the planning area to identify wilderness study areas (WSAs). WSAs are roadless areas that meet the minimum criteria for wilderness identified in Section 2(c) of the Wilderness Act.

*"A wilderness, in contrast with those areas where man and his works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions, and which: (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological or other features of scientific, educational, scenic, or historical value."*

A WSA must be a roadless area or island, meet the size criteria, appear natural, and provide outstanding opportunities for solitude or primitive recreation. The process for identification of roadless areas and islands in the San Diego NWR and application of the wilderness criteria are described in the following sections.

### **Identification of Roadless Areas and Roadless Islands**

Identification of roadless areas and roadless islands required gathering and evaluating land status maps, land use and road inventory data, and aerial photographs for the San Diego NWR.

“Roadless” refers to the absence of improved roads suitable and maintained for public travel by means of motorized vehicles primarily intended for highway use.

### **Evaluation of the Size Criteria**

Roadless areas or roadless islands meet the size criteria if any one of the following standards applies:

- An area with over 5,000 contiguous acres. State and private lands are not included in making this acreage determination.
- A roadless island of any size. A roadless island is defined as an area surrounded by permanent waters or that is markedly distinguished from the surrounding lands by topographical or ecological features.
- An area of less than 5,000 contiguous Federal acres that is of sufficient size as to make practicable its preservation and use in an unimpaired condition, and of a size suitable for wilderness management.
- An area of less than 5,000 contiguous Federal acres that is contiguous with a designated wilderness, recommended wilderness, or area under wilderness review by another Federal wilderness managing agency such as the U.S. Forest Service, National Park Service, or Bureau of Land Management.

### **Evaluation of the Naturalness Criteria**

In addition to being roadless, a WSA must meet the naturalness criteria. Section 2(c) defines wilderness as an area that “... generally appears to have been affected primarily by the forces of

nature with the imprint of man's work substantially unnoticeable." The area must appear natural to the average visitor rather than "pristine." The presence of historic landscape conditions is not required. An area may include some human impacts, provided they are substantially unnoticeable in the unit as a whole. Significant human-caused hazards, such as the presence of unexploded ordnance from military activity, and the physical impacts of refuge management facilities and activities are also considered in evaluation of the naturalness criteria. An area may not be considered unnatural in appearance solely on the basis of the "sights and sounds" of human impacts and activities outside the boundary of the unit.

### **Evaluation of Outstanding Opportunities for Solitude or Primitive and Unconfined Recreation**

In addition to meeting the size and naturalness criteria, a WSA must provide outstanding opportunities for solitude or primitive recreation. The area does not have to possess outstanding opportunities for both solitude and primitive and unconfined recreation, and it does not need to have outstanding opportunities on every acre. Further, an area does not have to be open to public use and access to qualify under this criteria; Congress has designated a number of wilderness areas in the Refuge System that are closed to public access to protect resource values.

Opportunities for solitude refer to the ability of a visitor to be alone and secluded from other visitors in the area. Primitive and unconfined recreation means non-motorized, dispersed outdoor recreation activities that are compatible and do not require developed facilities or mechanical transport. These primitive recreation activities may provide opportunities to experience challenge and risk, self-reliance, and adventure.

These two "opportunity elements" are not well defined by the Wilderness Act but, in most cases, can be expected to occur together. However, an outstanding opportunity for solitude may be present in an area offering only limited primitive recreation potential. Conversely, an area may be so attractive for recreation use that experiencing solitude is not an option.

### **Evaluation of Supplemental Values**

Supplemental values are defined by the Wilderness Act as "...ecological, geological, or other features of scientific, educational, scenic, or historic value." These values are not required for wilderness, but their presence should be documented.

### **Inventory Findings**

As documented here, the lands and waters within the San Diego NWR do not meet the criteria for a WSA.

### **Roadless Areas and Roadless Islands**

Many unpaved and two paved roads extend through the Refuge that are used by the Refuge, San Diego Gas and Electric, Otay Water District, communications facilities, and private landowners. The lands within the Refuge do not meet the criteria for roadless areas.

### **Size Criteria**

The San Diego NWR consists of approximately 11,163 acres of land distributed among five separate areas. Although the largest contiguous area consists of approximately 6,700 acres, this area is traversed by several power transmittal lines and associated maintenance easements, as well as a road that provides access to private property at the top of San Miguel Mountain. None of the areas contain undisturbed land of sufficient size to meet the wilderness size criteria. No islands are included within the San Diego NWR.

### **Naturalness Criteria**

The majority of wetland and upland habitats within the San Diego NWR represent historic, natural coastal foothill, valley, and riparian habitats. However, other portions serve as mitigation (e.g., Palmer's ericameria restoration in uplands adjacent to the Sweetwater River). The restored vernal pools at Shinohara mimic the historic natural conditions of the area. In addition, evidence of past agricultural development is present in various locations throughout the Refuge.

### **Outstanding Opportunities for Solitude or Primitive and Unconfined Recreation**

Much of the San Diego NWR is located adjacent to urban and suburban development, with other areas that are more remote from human activity. Although the Refuge can provide opportunities for escape from the urban environment, the sights and sounds of urbanization are often apparent within the Refuge boundary.

### **Supplemental Values**

The San Diego NWR protects some of what remains of the historic, natural coastal foothill, valley, and riparian habitats, and these areas of the Refuge provide significant scenic value and provide significant ecological benefits to wildlife.

### **Conclusions**

The lands and waters included within the San Diego NWR do not meet the minimum criteria for wilderness as identified in Section 2(c) of the Wilderness Act. No further analysis related to wilderness issues is therefore required.

## ***Appendix M***

### ***Glossary of Terms and Acronyms***

# *Appendix M: Glossary of Terms and Acronyms*

## **1. Acronyms and Abbreviations**

|                 |   |
|-----------------|---|
| ADT             | average daily traffic volumes   |
| APCD            | San Diego Air Pollution Control District  |
| APE             | Area of Potential Effect  |
| APHIS-PPQ       | Animal and Plant Health Inspection Service, Plant Protection and Quarantine unit                                |
| ATV             | all-terrain vehicle   |
| BCR             | Bird Conservation Regions   |
| BLM             | Bureau of Land Management, Department of the Interior   |
| BMPs            | Best Management Practices   |
| CAAQS           | California Ambient Air Quality Standards  |
| Caltrans        | California Department of Transportation   |
| CAPCOA          | California Air Pollution Officers Association   |
| CARB            | California Air Resources Board  |
| CBI             | Conservation Biology Institute  |
| CCP             | Comprehensive Conservation Plan   |
| CDFG            | California Department of Fish and Game (renamed the California Department of Fish and Wildlife in January 2013) |
| CDFW            | California Department of Fish and Wildlife  |
| CEPA            | California Environmental Protection Agency  |
| CEQ             | President's Council on Environmental Quality  |
| CESA            | California Endangered Species Act   |
| CFR             | Code of Federal Regulations   |
| cm              | centimeter  |
| CO              | Carbon monoxide   |
| CO <sub>2</sub> | carbon dioxide  |
| CH <sub>4</sub> | methane   |
| CNDDB           | California Natural Diversity Database   |
| Complex         | San Diego National Wildlife Refuge Complex  |
| County          | County of San Diego   |
| CWA             | Clean Water Act   |
| DOI             | Department of the Interior  |
| EA              | environmental assessment  |
| EIR             | Environmental Impact Report   |
| EIS             | Environmental Impact Statement  |
| EO              | Executive order   |
| ESA             | Federal Endangered Species Act  |
| FC              | Federal Candidate Species   |
| FE              | Federally endangered  |
| FIFRA           | Federal Insecticide, Fungicide, and Rodenticide Act   |
| FR              | Federal Register  |

|                     |  |
|---------------------|--|
| FT                  | Federally threatened   |
| FTE                 | full-time equivalent   |
| FY                  | fiscal year  |
| GHGs                | greenhouse gases   |
| GPS                 | Global Positioning System  |
| GS                  | General Service  |
| GUS                 | Groundwater Ubiquity Score   |
| GWP                 | global warming potential   |
| HUD                 | U.S. Department of Housing and Urban Development   |
| H <sub>2</sub> S    | Hydrogen sulfide   |
| IBP                 | Institute for Bird Populations   |
| Improvement Act     | National Wildlife Refuge System Improvement Act of 1997  |
| IPCC                | Intergovernmental Panel on Climate Change  |
| IPM                 | integrated pest management   |
| kV                  | kilovolt   |
| LCC                 | Landscape Conservation Cooperative   |
| LOS                 | Level of Service   |
| LPP                 | Land Protection Plan   |
| m <sup>2</sup>      | square meter   |
| MAPS                | Monitoring Avian Productivity and Survivorship   |
| MBTA                | Migratory Bird Treaty Act  |
| MCAS                | Marine Corps Air Station   |
| MCLs                | maximum contaminant levels   |
| MHPA                | Multi-Habitat Planning Area, as defined in the City of San Diego's<br>Multiple Species Conservation Program Subarea Plan |
| MOA                 | Memorandum of Agreement  |
| MOU                 | Memorandum of Understanding  |
| mph                 | miles per hour   |
| MRZ                 | Mineral Resource Zones   |
| MSCP                | Multiple Species Conservation Program  |
| MSDS                | Material Safety Data Sheet   |
| MSL                 | mean sea level   |
| NAAQS               | National Ambient Air Quality Standards   |
| NAGPRA              | Native American Graves Protection and Repatriation Act   |
| NCCP                | Natural Community Conservation Planning  |
| NGOs                | non-government organizations   |
| NEPA                | National Environmental Policy Act  |
| NHPA                | National Historic Preservation Act   |
| NO <sub>2</sub>     | Nitrogen dioxide   |
| NOI                 | Notice of Intent   |
| NOx                 | Oxides of nitrogen   |
| N <sub>2</sub> O    | nitrous oxide  |
| NPDES               | National Pollutant Discharge Elimination System  |
| NRHP                | National Register of Historic Places   |
| NVCS                | National Vegetation Classification Standards   |
| NWR                 | National Wildlife Refuge   |
| NWRS                | National Wildlife Refuge System  |
| OEHHA               | Office of Environmental Health Hazard Assessment   |
| PAHs                | polycyclic aromatic hydrocarbons   |
| PCC-grade aggregate | Aggregate that has been naturally sorted, rounded, and polished in<br>rivers and creeks                                  |

|                   |   |
|-------------------|---|
| PC region         | production/consumption region   |
| PCBs              | polychlorinated biphenyls   |
| PM <sub>10</sub>  | particulate matter equal to or less than 10 microns in size                         |
| PM <sub>2.5</sub> | fine particulate matter equal to or less than 2.5 microns in size                   |
| PPE               | personal protective equipment   |
| ppm               | parts per million   |
| ppt               | parts per thousand  |
| PUP               | Pesticide Use Proposal  |
| PUPS              | Pesticide Use Proposal System   |
| ROD               | Record of Decision  |
| RONs              | Refuge Operating Needs System   |
| RTC               | Resolution Trust Corporation  |
| RWQCB             | Regional Water Quality Control Board  |
| SAMMS             | Service Asset Maintenance Management System   |
| SANDAG            | San Diego Association of Governments  |
| SCIC              | California Historical Resources Information System South Coastal Information Center |
| SDG&E             | San Diego Gas & Electric  |
| SDMMP             | San Diego Management and Monitoring Program   |
| SE                | State endangered  |
| Service           | U.S. Fish and Wildlife Service (also, USFWS)  |
| SHPO              | State Historic Preservation Office  |
| SJV               | Sonoran Joint Venture   |
| SJVBCP            | Sonoran Joint Venture Bird Conservation Plan  |
| SO <sub>2</sub>   | Sulfur dioxide  |
| SR                | State Rare  |
| SR-125            | State Route 125   |
| State             | California Department of Fish and Wildlife  |
| SUP               | Special Use Permit  |
| SWRCB             | California State Water Resources Control Board                                      |
| SWPPP             | Storm Water Pollution Prevention Plan   |
| TBT               | tributyltin   |
| TMDLs             | Total Maximum Daily Loads   |
| TNC               | The Nature Conservancy  |
| TRPH              | total recoverable petroleum hydrocarbons  |
| URDS              | Urban Runoff Diversion System   |
| USC               | United States Code  |
| USDA              | U.S. Department of Agriculture  |
| USDA APHIS        | U.S. Department of Agriculture, Animal Plant Health Inspection Service              |
| USEPA             | U.S. Environmental Protection Agency  |
| USFWS             | U.S. Department of the Interior, Fish and Wildlife Service (also, Service)          |
| USGS              | United States Geological Survey   |
| VOC               | volatile organic compounds  |
| WG                | wage grade  |
| WMA               | San Diego Bay Watershed Management Area   |
| WSA               | wilderness study area   |
| WUI               | wildland-urban interface  |
| °C                | degrees Celsius   |
| °F                | degrees Fahrenheit  |

## 2. Glossary of Terms

**Accessibility.** The state or quality of being easily approached or entered, particularly as it relates to complying with the Americans with Disabilities Act.

**Accumulation.** The build-up of a chemical in an organism due to repeated exposure.

**Adaptive Management.** The rigorous application of management, research, and monitoring to gain information and experience necessary to assess and modify management activities. A process that uses feedback from Refuge research and monitoring and evaluation of management actions to support or modify objectives and strategies at all planning levels. Analysis of results help managers determine whether current management should continue as is or whether it should be modified to achieve desired conditions.

**Alluvial.** Clay, silt, sand, gravel, or other sedimentary matter transported and deposited in a delta or riverbed by flowing water.

**Alternative.** A reasonable way to fix an identified problem or satisfy a stated need, or a different set of objectives and strategies or means of achieving Refuge purposes and goals, helping fulfill the Refuge System mission, and resolving issues.

**Approved Acquisition Boundary.** A project boundary that the Director of the Service approves upon completion of the planning and environmental compliance process. An approved acquisition boundary only designates those lands that the Service has authority to acquire or manage through various agreements. The approval of an acquisition boundary does not grant the Service jurisdiction or control over lands within the boundary, and it does not make lands within the Refuge boundary part of the National Wildlife Refuge System. Lands do not become part of the System until the Service buys them or they are placed under an agreement that provides for their management as part of the Refuge System.

**Aquatic.** Pertaining to water, in contrast to land.

**Artifact.** An object used or made by humans, usually in reference to projectile points, tools, utensils, art, food remains, and other products of human activity.

**Benthic.** Refers to organisms associated with the bottom of the ocean, bay, lake, or river.

**Biodiversity (Biological Diversity).** Refers to the full range of variability within and among biological communities, including genetic diversity, and the variety of living organisms, assemblages of living organisms, and biological processes. Diversity can be measured in terms of the number of different items (e.g., species, communities) and their relative abundance.

**Biological Integrity.** Biotic composition, structure, and functioning at the genetic, organism, and community levels consistent with natural conditions, including the natural biological processes that shape genomes, organisms, and communities.

**Biota.** The plant and animal life of a region.

**Categorical Exclusion.** A category of actions that do not individually or cumulatively have a significant effect on the human environment and have been found to have no such effect in procedures adopted by a Federal agency pursuant to the National Environmental Policy Act.

**Compatibility Determination.** A written determination that a proposed or existing use of a national wildlife refuge is a compatible use or is not a compatible use.

**Compatible Use.** A proposed or existing wildlife-dependent recreational use or any other use of a national wildlife refuge that, based on sound professional judgment, will not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System mission or the purposes of the refuge on which the use would occur.

**Comprehensive Conservation Plan (CCP).** A document that describes the desired future conditions of the refuge or planning unit and provides long-range guidance and management direction to achieve the purposes of the refuge, helps fulfill the mission of the Refuge System; maintains and, where appropriate, restores the ecological integrity of each refuge and the Refuge System; helps achieve the goals of the National Wilderness Preservation System; and meets other mandates.

**Concern.** See issue.

**Critical Habitat.** According to Federal law, the ecosystems upon which endangered and threatened species depend.

**Cultural Resource.** The physical remains of human activity (e.g., artifacts, ruins, petroglyphs, etc.) and conceptual content or context of an area such as a traditional sacred site. It includes historically, archaeologically, and architecturally significant resources.

**Cultural Resource Inventory.** A professionally conducted study designed to locate and evaluate evidence of cultural resources present within a defined geographic area. Inventories may involve various levels, including background literature search, comprehensive field examination to identify all exposed physical manifestations of cultural resources, or sample inventory to project site distribution and density over a larger area. Evaluation of identified cultural resources to determine eligibility for the National Register follows the criteria found in 36 CFR 60.4.

**Cultural Resource Overview.** A comprehensive document prepared for a field office that discusses, among other things, its prehistory and cultural history, the nature and extent of known cultural resources, previous research, management objectives, resource management conflicts or issues, and a general statement on how program objectives should be met and conflicts resolved.

**Disturbance.** Significant alteration of habitat structure or composition. May be natural (e.g., fire) or human-caused events (e.g., aircraft overflight). Also see wildlife disturbance.

**Easement.** A privilege or right that is held by one person or other entity in land owned by another.

**Ecological Integrity.** The integration of biological integrity, natural biological diversity, and environmental health; the replication of natural conditions.

**Ecoregion.** A territory defined by a combination of biological, social, and geographic criteria, rather than geopolitical considerations; generally, a system of related, interconnected ecosystems.

**Ecosystem.** A dynamic and interrelating complex of plant and animal communities and their associated non-living environment.

**Ecosystem Approach.** Protecting or restoring the natural function (processes), structure (physical and biological patterns), and species composition of an ecosystem, recognizing that all components are interrelated.

**Ecosystem Management.** Management of natural resources using system-wide concepts to ensure that all plants and animals in ecosystems are maintained at viable levels in native habitats and basic ecosystem processes are perpetuated indefinitely.

**Effect.** A change in a resource caused by a variety of events, including project attributes acting on a resource attribute (direct), not directly acting on a resource attribute (indirect), another project attributes acting on a resource attribute (cumulative), and those caused by natural events (e.g., seasonal change).

**Endangered Species (Federal).** A plant or animal species listed under the Endangered Species Act that is in danger of extinction throughout all or a significant portion of its range.

**Endangered Species (State).** A plant or animal species in danger of becoming extinct or extirpated in California within the near future if factors contributing to its decline continue.

**Environment.** The sum total of all biological, chemical, and physical factors to which organisms are exposed; the surroundings of a plant or animal.

**Environmental Assessment (EA).** A concise public document, prepared in compliance with the National Environmental Policy Act, that briefly discusses the purpose and need for an action and alternatives to such action; it provides sufficient evidence and analysis of impacts to determine whether to prepare an Environmental Impact Statement or Finding of No Significant Impact.

**Environmental Education.** A process designed to develop a citizenry that has the awareness, concern, knowledge, attitudes, skills, motivation, and commitment to work toward solutions of current environmental problems and the prevention of new ones. Environmental education within the National Wildlife Refuge System incorporates materials, activities, programs, and products that address the citizen's course of study goals, the objectives of the refuge or unit, and the mission of the Refuge System.

**Environmental Health.** Abiotic composition, structure, and functioning of the environment consistent with natural conditions, including the natural abiotic processes that shape the environment.

**Environmental Impact Statement (EIS).** A detailed written statement required by Section 102(2)(C) of the National Environmental Policy Act, analyzing the environmental impacts of a proposed action, adverse effects of the project that cannot be avoided, alternative courses of action, short-term uses of the environment versus the maintenance and enhancement of long-term productivity, and any irreversible and irretrievable commitment of resources (40 CFR 1508.11).

**Exotic Species.** Species that have been intentionally introduced to or have inadvertently infiltrated an area in which they are not naturally found. Exotic species compete with native species for food or habitat.

**Federal Trust Resources.** A trust is something managed by one entity for another who holds the ownership. The Service holds in trust many natural resources for the people of the United States of America as a result of Federal acts and treaties. Examples are species listed under the Endangered Species Act, migratory birds protected by the Migratory Bird Treaty Act and other international treaties, and native plant or wildlife species found on the Refuge System.

**Feral.** Animals living in the wild, but descended from domesticated individuals.

**Finding of No Significant Impact (FONSI).** A document prepared in compliance with the National Environmental Policy Act, supported by an environmental assessment, that briefly presents why a Federal action will have no significant effect on the human environment and for which an environmental impact statement, therefore, will not be prepared (40 CFR 1508.13).

**Floodplain.** The relatively flat area along the sides of a river that is naturally subjected to flooding.

**Fluvial.** Pertaining to a river.

**Flyway.** A route taken by migratory birds between their breeding grounds and their wintering grounds. Four primary migration routes have been identified for birds breeding in North America: the Pacific, Central, Mississippi, and Atlantic Flyways.

**Foraging.** The act of feeding; another word for feeding.

**Forb.** A broad-leaved herbaceous plant.

**Fragmentation.** The process of reducing the size and connectivity of habitat patches.

**Gastropod.** Any of a large class of mollusks, usually with a univalve shell or no shell and a distinct head bearing sensory organs, such as snails and slugs.

**Goal.** Descriptive, open-ended, and often broad statement of desired future conditions that conveys a purpose but does not define measurable units.

**Habitat.** Suite of existing environmental conditions required by an organism for survival and reproduction. The place where an organism typically lives.

**Habitat Fragmentation.** The breaking up of a specific habitat into smaller unconnected areas.

**Habitat Restoration.** Management emphasis designed to move ecosystems to desired conditions and processes and/or to healthy ecosystems.

**Habitat Type.** See Vegetation Type.

**Hydrologic Regime.** The local pattern and magnitude of water flow influenced by season.

**Hydrology.** The science dealing with the properties, distribution, and circulation of water on and below the Earth's surface and in the atmosphere. The distribution and cycling of water in an area.

**Impact.** Refer to Effect.

**Integrated Pest Management (IPM).** Methods of managing undesirable species (e.g., weeds), including education, prevention, physical or mechanical methods or control, biological control, responsible chemical use, and cultural methods.

**Interpretation.** Interpretation can be an educational and recreational activity that is aimed at revealing relationships, examining systems, and exploring how the natural world and human activities are interconnected.

**Invasive Species.** Refer to Exotic Species.

**Inversion.** A state in which the temperature of the air increases with increasing altitude and keeps the surface air and pollutants down.

**Invertebrate.** Animals that do not have backbones. Included are insects, spiders, mollusks (clams, snails, etc.), and crustaceans (shrimp, crayfish, etc.).

**Issue.** Any unsettled matter that requires a management decision (e.g., a Service initiative, opportunity, resource management problem, a threat to the resources of the unit, conflict in uses, public concern, or the presence of an undesirable resource condition).

**Landbird.** A category of birds that obtains at least part of their food from the land and nest in mainland areas (though some can also be found on islands). Landbirds include raptors and songbirds, among others.

**Landform.** The physical shape of the land reflecting geologic structure and processes of geomorphology that have sculpted the structure.

**Landowner:** A person or entity indicated as the owner of property on the various ownership maps maintained by the office of the county assessor.

**Lease.** A legal contract by which rights to use land or water are acquired for a specified period of time for a specified rent or compensation.

**Management Alternative.** A set of objectives and the strategies needed to accomplish each objective [FWS Manual 602 FW 1.4].

**Management Concern.** Refer to Issue.

**Marsh Habitat.** Habitat that is characterized by shallow water and emergent vegetation; unless otherwise specified, this term does not apply to similar habitat found in rivers, drains, or canals.

**Migration.** The seasonal movement from one area to another and back.

**Migratory Bird.** A bird that seasonally moves between geographic areas.

**Mitigation.** To avoid or minimize impacts of an action by limiting the degree or magnitude of the action; to rectify the impact by repairing, rehabilitating, or restoring the affected environment; to reduce or eliminate the impact by preservation and maintenance operations during the life of the action.

**Model.** A mathematical formula that expresses the actions and interactions of the elements of a system in such a manner that the system may be evaluated under any given set of conditions.

**Monitoring.** The process of collecting information to track changes of selected parameters over time. Monitoring is necessary to identify, track, and analyze results of management actions at the Refuge so that future management actions may be adapted to obtain the best benefits to wildlife and habitat. See also Adaptive Management.

**National Environmental Policy Act (NEPA).** An act that encourages productive and enjoyable harmony between humans and their environment to promote efforts that will prevent or eliminate damage to the environment and atmosphere and to stimulate the health and welfare of humans. The act also established the Council on Environmental Quality. The act requires all agencies, including the Service, to examine the environmental impacts of their actions, incorporate environmental information, and use public participation in the planning and implementation of all actions. Federal agencies must integrate NEPA with other planning requirements and prepare appropriate NEPA documents to facilitate better environmental decision making.

**National Wildlife Refuge (Refuge or NWR).** A designated area of land or water or an interest in land or water within the Refuge System, including national wildlife refuges, wildlife ranges, wildlife management areas, waterfowl production areas, and other areas (except coordination areas) under Service jurisdiction for the protection and conservation of fish and wildlife.

**National Wildlife Refuge System.** Various categories of areas administered by the Secretary of the Interior for the conservation of fish and wildlife, including species threatened with extinction; all lands, waters, and interests therein administered by the Secretary as wildlife refuges; areas for the protection and conservation of fish and wildlife that are threatened with extinction; wildlife ranges; games ranges; wildlife management areas; or waterfowl production areas.

**National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57).** Under the Refuge Improvement Act, the Service is required to develop 15-year Comprehensive Conservation Plans for all national wildlife refuges outside Alaska. The act also describes the six public uses given priority status within the Refuge System (i.e., hunting, fishing, wildlife observation, photography, environmental education, and interpretation).

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

**Native Species.** Species that normally live and thrive in a particular ecosystem.

**Natural Recruitment.** Plant establishment through natural processes.

**Neotropical Migratory Birds.** Migratory birds that breed in North America and winter in Central and South America.

**No Action Alternative.** An alternative under which existing management would be continued.

**Notice of Intent (NOI).** A notice that is published in the *Federal Register* announcing that an Environmental Impact Statement will be prepared and considered for a specific action.

**Objective.** An objective is a concise target statement of what will be achieved, how much will be achieved, when and where it will be achieved, and who is responsible for the work. Objectives are derived from goals and provide the basis for determining management strategies. Objectives should be attainable and time-specific and should be stated quantitatively to the extent possible. If objectives cannot be stated quantitatively, they may be stated qualitatively.

**One-Hundred-Year Floodplain.** The relatively flat portion of the river channel that has a one percent chance of being inundated by flood water in any given year.

**Opportunities.** Potential solutions to issues.

**Outreach.** Two-way communication between the Service and the public to establish mutual understanding, promote involvement, and influence attitudes and actions, with the goal of improving joint stewardship of our natural resources.

**Overbank Flooding.** River flows that exceed the boundaries of the existing river channel and/or levees and that flood adjacent areas.

**Passerine Bird.** A songbird or other perching bird that is in the order Passeriformes (e.g., blackbirds, crows, warblers, sparrows, and wrens).

**Peak Flow.** The maximum discharge of a stream or river during a specified period of time.

**Perennial.** In reference to a body of water, one that contains water year-to-year and that rarely goes dry.

**Permeability.** The property or capacity of porous rock, sediment, or soil to transmit water.

**Phenology.** The life cycle of particular species.

**Planning Area.** The area upon which a planning effort is focused.

**Planning Team.** A team or group of persons working together to prepare a document. Planning teams are interdisciplinary in membership and function and generally consist of a planning team leader, Refuge manager and staff biologists, a State natural resource agency representative, and other appropriate program specialists (e.g., social scientist, ecologist, recreation specialist).

**Planning Unit or Unit.** A single refuge, an ecologically or administratively related refuge complex, or distinct unit of a refuge. The planning unit also may include lands currently outside refuge boundaries.

**Plant Association.** A classification of plant communities based on the similarity in dominants of all layers of vascular species in a climax community.

**Plant Community.** An assemblage of plant species of a particular composition. The term can also be used in reference to a group of one or more populations of plants in a particular area at a particular point in time; the plant community of an area can change over time due to disturbance (e.g., fire) and succession.

**Pollutant or Contaminant.** Any introduced gas, liquid, or solid that makes a resource unfit for a specific purpose.

**Population.** All the members of a single species coexisting in one ecosystem at a given time.

**Preferred Alternative.** This is the alternative determined by the decision maker to best achieve the Refuge purpose, vision, and goals; it contributes to the Refuge System mission, addresses the significant issues, and is consistent with principles of sound fish and wildlife management.

**Prescribed Fire.** The skillful application of fire to natural fuels under conditions of weather, fuel moisture, soil moisture, etc., that allows confinement of the fire to a predetermined area and produces the intensity of heat and rate of spread to accomplish planned benefits to one or more objectives of habitat management, wildlife management, or hazard reduction.

**Prime Farmland.** Farmland in an area or region that is considered to be the most ideal farmland based on several criteria; usually soil types and land productivity of the land are two of the most important criteria.

**Priority Public Uses.** Compatible wildlife-dependent recreation uses (hunting, fishing, wildlife observation and photography, and environmental education and interpretation).

**Proposed Action.** The Service's proposed action for Comprehensive Conservation Plans.

**Public.** Individuals, organizations, and groups; officials of Federal, State, and local government agencies; Indian tribes; and foreign nations. It may include anyone outside the core planning team. It includes those who may or may not have indicated an interest in Service issues and those who do or do not realize that Service decisions may affect them.

**Public Involvement.** A process that offers impacted and interested individuals and organizations an opportunity to become informed about, and to express their opinions on, Service actions and policies. In the process, these views are studied thoroughly, and thoughtful consideration of public views is given in shaping decisions for Refuge management.

**Public Scoping:** See Public Involvement.

**Purpose(s) of the Refuge.** The purpose of a refuge is specified in or derived from the law, proclamation, Executive order, agreement, public land order, donation document, or administrative memorandum establishing, authorization, or expanding a refuge, refuge unit, or refuge subunit.

**Raptor.** A category of carnivorous birds, most of which have heavy, sharp beaks and strong talons, that take live prey (e.g., peregrine falcon, northern harrier). Also referred to as a bird of prey.

**Record of Decision (ROD).** A concise public record of decision prepared by the Federal agency, pursuant to NEPA, that contains a statement of the decision, identification of all alternatives considered, identification of the environmentally preferable alternative, a statement as to whether all practical means to avoid or minimize environmental harm from the alternative selected have been adopted (and if not, why they were not), and a summary of monitoring and enforcement, where applicable, for any mitigation.

**Recruitment.** The annual increase in a population as determined by the proportion of surviving offspring produced during a specific period (usually expressed per year).

**Refuge Goal.** Refer to Goal.

**Refuge Operating Needs System (RONS).** A national database that contains the unfunded operational needs of each refuge. The Service includes projects required to implement approved plans and meet goals, objectives, and legal mandates.

**Refuge Purposes.** Refer to Purposes of a Refuge.

**Refuge System.** The National Wildlife Refuge System (NWRS).

**Refuge Use.** Any activity on a refuge, except administrative or law enforcement activity, carried out by or under the direction of an authorized Service employee.

**Refuge Vision.** A succinct statement of the unit's purpose and reason for being.

**Restoration.** The return of an ecosystem to an approximation of its former unimpaired condition.

**Revetment.** A facing of stone, concrete, or other material placed on a riverbank to protect it from erosion.

**Rhizomes.** Rootlike stem growing horizontally below the surface. The rhizome is used for food storage and can produce roots and shoots.

**Riparian.** Refers to an area or habitat that is transitional from terrestrial to aquatic ecosystems, including streams, lakes wet areas, and adjacent plant communities and their associated soils, that have free water at or near the surface; or an area whose components are directly or indirectly attributed to the influence of water; of or relating to a river, Specifically applied to ecology, “riparian” describes the land immediately adjoining and directly influenced by streams. For example, riparian vegetation includes any and all plant life growing on the land adjoining a stream and directly influenced by the stream.

**Riparian Area.** A transitional area between terrestrial and aquatic ecosystems, distinguished by gradients in biophysical conditions, ecological processes, and biota; areas through which surface and subsurface hydrology connect water bodies with their adjacent uplands.

**Riparian Habitat.** Gravel bars; sand dunes; non-vegetated riverbanks; herbaceous, scrub, and forested vegetation that provides habitat for plants, macro-invertebrates, fish, and wildlife.

**Riverine.** Freshwater wetlands and deepwater habitats within a channel containing periodically or continuously moving water. It includes wetlands with primarily or mostly submerged vegetation but does not include those wetlands with mostly emergent vegetation or shrubs and trees. This habitat encompasses a river or stream, its channel, and the associated aquatic vegetation. Can also pertain to rivers and floodplains.

**Seiche.** A sudden fluctuation of water levels on a lake or inland sea, potentially the result of an earthquake.

**Sediment.** Any material, carried in suspension by water, which ultimately settles to the bottom of water courses. Sediments may also settle on stream banks or flood plains during high water flow.

**Soil Erosion.** The wearing away of the land's surface by water, wind, ice, or other physical process.

**Songbirds.** A category of birds that includes medium to small perching landbirds. Most are territorial singers and migratory. (Refer also to Passerines.)

**Sound Professional Judgment.** A finding, determination, or decision that is consistent with principles of sound fish and wildlife management and administration, available science and resources, and adherence to the requirements of the Refuge Administration Act of 1966 (16 U.S.C. 668dd-668ee) and other applicable laws. Included in the finding, determination, or decision is a refuge manager's field experience and knowledge of the particular refuge's resources.

**Species.** A distinctive kind of plant or animal having distinguishable characteristics, and that can interbreed and produce young. A category of biological classification.

**Species Composition.** A group of species that inhabit a specific habitat type in its healthy state.

**Species Diversity.** Usually synonymous with "species richness" but may also include the proportional distribution of species.

**Step-down Management Plan.** A plan that provides specific guidance on management subjects (e.g., habitat, public use, fire, safety) or groups of related subjects. It describes strategies and implementation schedules for meeting CCP goals and objectives.

**Strategy.** A specific action, tool, or technique or combination of actions, tools, and techniques used to meet unit objectives.

**Study Area.** The area reviewed in detail for wildlife, habitat, and public use potential. For purposes of this CCP/EIS, the study area includes the land and water within the approved Refuge boundary.

**Submergent Vegetation.** Plants that grows completely submerged except when flowering.

**Subsidence.** Movement to a lower level or elevation.

**Surface Water.** A body of water that has its upper surface exposed to the atmosphere.

**Terminus.** In reference to a stream or river, its end point; where it flows into a lake or other basin.

**Threatened Species (Federal).** Species listed under the Endangered Species Act that are likely to become endangered within the foreseeable future throughout all or a significant portion of their range.

**Tiering.** The coverage of general matters in broader environmental impact statements with subsequent narrower statements of environmental analysis, incorporating by reference the general discussions and concentrating on specific issues.

**Trace Elements.** Metallic elements generally occurring in trace amounts in water, including iron, manganese, copper, chromium, arsenic, mercury, and vanadium.

**Turbidity.** Cloudiness of a water body caused by suspended silt, mud, pollutants, or algae.

**U.S. Fish and Wildlife Service Mission.** “Working with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.

**Understory.** Shrubs and herbaceous plants that typically grow beneath larger trees or shrubs.

**Upland.** An area where water normally does not collect and where water does not flow on an extended basis. Uplands are non-wetland areas.

**Vegetation.** The composition of plant species, their frequency of occurrence, density, and age classes at a specified scale.

**Vegetation Community.** Refer to Plant Community.

**Vegetation Type or Habitat Type.** A land classification system based upon the concept of distinct plant associations.

**Waterfowl.** A group of birds that include ducks, geese, and swans (belonging to the order Anseriformes).

**Watershed.** The entire land area that collects and drains water into a river or river system.

**Wetland.** Land that is transitional between upland (terrestrial) and aquatic systems (greater than about six feet deep) where the water table is usually at or near the surface or the land is covered by shallow water.

**Wetland Habitat.** Habitat provided by shallow or deep water (but less than six feet deep), with or without emergent and aquatic vegetation in wetlands. Wetland habitat only exists when and where a wetland or portion of a wetland is covered with water (visible surface water). Consequently, the size and shape of "wetland habitat" will fluctuate from season to season and year to year, while the size and shape of the "wetland" within which wetland habitat occurs will remain constant from season to season and from year to year.

**Wildfire or Wildland Fire.** A free-burning fire requiring a suppression response; all fire other than prescribed fire that occurs on wildlands.

**Wildlife.** All non-domesticated animal life; included are vertebrates and invertebrates.

**Wildlife Corridor.** A landscape feature that facilitates the biologically effective transport of animals between larger patches of habitat dedicated to conservation functions. Such corridors may facilitate several kinds of traffic, including frequent foraging movement, seasonal migration, or the once-in-a-lifetime dispersal of juvenile animals. These are transition habitats and need not contain all the habitat elements required for long-term survival of reproduction of its migrants.

**Wildlife-Dependent Recreational Use.** "A use of a refuge involving hunting, fishing, wildlife observation and photography, or environmental education and interpretation." These are the six priority public uses of the Refuge System as established in the National Wildlife Refuge System Administration Act, as amended.

# *Appendix N*

## *Distribution List*

# ***Appendix N: Distribution List***

The following Federal, State, local, agencies, Tribes, organizations, media, and interested individuals and entities received notice of the availability of the San Diego National Wildlife Refuge Draft Comprehensive Conservation Plan and Environmental Assessment:

## **U.S. Elected Officials**

Honorable Barbara Boxer, U.S. Senate  
Honorable Dianne Feinstein, U.S. Senate  
Congressman Duncan Hunter, Congressional District 50  
Congressman Juan Vargas, Congressional District 51  
Congressman Scott Peters, Congressional District 52  
Congresswoman Susan Davis, Congressional District 53

## **California State Legislature**

Joel Anderson, Senate District 36  
Marty Block, Senate District 39  
Ben Hueso, Senate District 40  
Brian Jones, 71<sup>st</sup> Assembly District  
Brian Maienschein, 77<sup>th</sup> Assembly District  
Lorena Gonzalez, 80<sup>th</sup> Assembly District

## **Federal Agencies**

Bureau of Land Management  
U.S. Army Corps of Engineers  
U.S. EPA, Region IX  
U.S. Forest Service  
USFWS, Carlsbad Fish and Wildlife Office  
USFWS, Pacific Southwest Regional Office  
USFWS, Region 1 and 8 Cultural Resources Team  
U.S. Geological Survey, San Diego Field Station  
U.S. Customs and Border Protection

## **California State Agencies**

California State Clearinghouse  
California Resources Agency  
California Air Resources Board  
Caltrans, District 11  
California Office of Historic Preservation  
California Department of Conservation  
California EPA  
California Department of Fish and Wildlife  
California Department of Parks and Recreation  
Fish and Game Commission  
Native American Heritage Commission Board  
Wildlife Conservation Board  
RWQCB, Region 9

**Tribes**

Barona Band of Mission Indians  
Campo Band of Mission Indians  
Ewiiapaayp Tribal Office  
Iipay Nation of Santa Ysabel  
Santa Ysabel Band of Mission Indians  
Inaja Band of Mission Indians  
Jamul Indian Village  
Kwaaymii Laguna Band of Mission Indians  
La Jolla Band of Luiseño Indians  
La Posta Band of Mission Indians  
Manzanita Band of the Kumeyaay Nation  
Mesa Grande Band of Mission Indians  
Pala Band of Mission Indians  
Rincon Indian Reservation  
San Pasqual Band of Indians  
Sycuan Band of the Kumeyaay Nation  
Viejas Band of Kumeyaay Indians  
Kumeyaay Cultural Repatriation Committee  
Kumeyaay Diegueno Land Conservancy

**City Governments**

City of San Diego (Mayor's Office, Council District 1, Planning, MSCP)  
City of El Cajon (Mayor's Office, Planning)  
City of Chula Vista (Mayor's Office, Planning, MSCP)

**County Government**

County of San Diego (Planning, Public Works, Parks & Recreation, Trails Coordinator)  
County Supervisor Greg Cox  
County Supervisor Dianne Jacob  
San Diego Air Pollution Control District

**Other Agencies**

San Diego County Water Authority  
San Diego Association of Governments  
Otay Water District  
Sweetwater Authority  
San Diego Gas and Electric  
Grossmont Union High School District  
MTDB

**Local Libraries**

Bonita-Sunnyside Branch Library  
Rancho San Diego Branch Library  
Spring Valley Branch Library  
Carmel Valley Library

**Organizations**

Animal Protection Institute  
Audubon California  
Back Country Land Trust

Backcountry Horseman of California  
Blossom Valley Riders  
Bonita Valley Trails  
Bright Valley Farms, Inc.  
Building Industry Association of San Diego  
California Native Plant Society California  
Center for Biodiversity  
Citizens Coordinate for Century 3  
Conservation Biology Institute  
Crest Dehesa Trails Subcommittee  
Defenders of Wildlife  
Del Mar Mesa Community Planning Board  
Desert Arabian Horse Association  
Endangered Habitats League  
Forest and Wilderness Committee  
Highway 94 Club  
Hunting and Fishing Coalition  
International Mountain Biking Association  
Jamul Trails Council  
Jamul/Dulzura Trails Subcommittee  
Lakeside Community Planning Group  
Lakeside Frontier Riders  
Lakeside Trails Subcommittee  
National Audubon Society  
National Fish and Wildlife Foundation  
National Interagency Fire Center  
National Wildlife Federation  
National Wildlife Refuge Association  
Otay Mesa Planning Committee  
Otay Valley Regional Park Committee  
PETA  
Point Blue Conservation Science  
Ramona Trails Association  
San Diego Audubon  
San Diego Bicycle Coalition  
San Diego County Archaeological Society  
San Diego County Fish and Game Association  
San Diego County Wildlife Federation Advisory Commission  
San Diego Farm Bureau  
San Diego Fish and Game Commission  
San Diego State University  
The Nature Conservancy  
The Wilderness Society  
Wildlife Management Institute

**Interested Public**

Property Owners within 100 feet of Refuge

**Media**

San Diego Business Journal  
San Diego Union Tribune