



# Secretary of Defense FY04

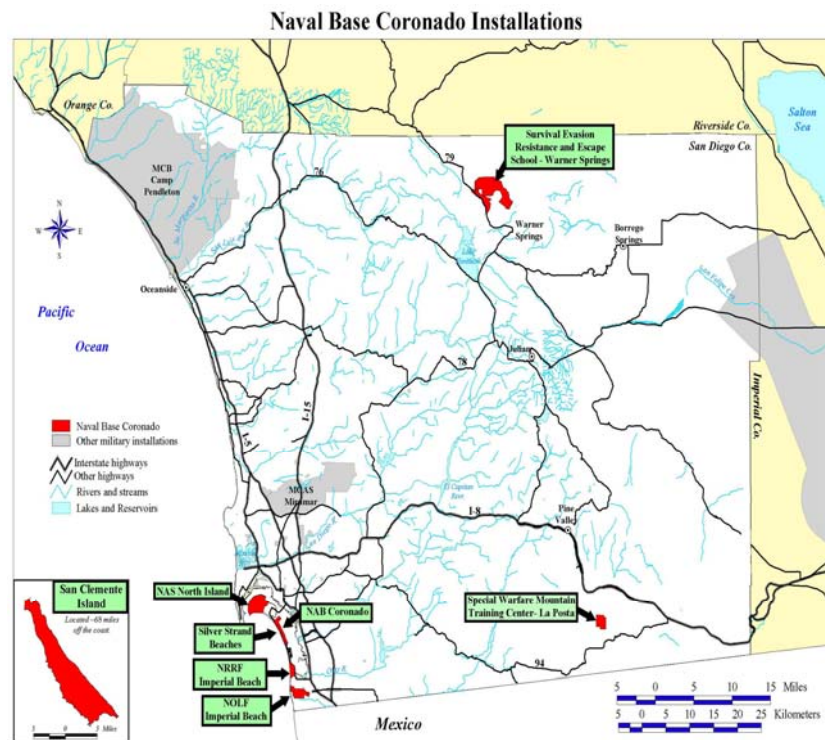


## Large Installation Natural Resources Conservation Award Naval Base Coronado, CA

### 1. Introduction.

The Commanding Officer of Naval Base Coronado (NBC) is responsible for seven geographically separate installations including: Naval Air Station North Island (NASNI); Naval Amphibious Base Coronado (NAB); Naval Radio Receiving Facility Imperial Beach (NRRF); Naval Outlying Landing Field Imperial Beach (NOLF IB); Survival Evasion Resistance and Escape (SERE) Training School Warner Springs; La Posta Mountain Warfare Training Center (La Posta); and San Clemente Island (SCI). The mission of NBC is to equip, maintain, train and support Naval surface and aviation units of the Pacific Fleet and other operational forces in order to conduct military operations in support of the Navy's operational commanders. NBC supports 140 tenant commands including Naval Air Force, U.S. Pacific Fleet; Carrier Groups One and Seven; Cruiser Destroyer Group One; Naval Surface Force, U. S. Pacific Fleet; Commander Naval Special Warfare Command, U. S. Pacific Fleet (SPECWAR); Naval Expeditionary units as well as the famed Navy Parachute Team, the Leap Frogs. NBC assets support all critical components of Naval training in the Pacific Fleet including being the home to over 230 types of aircraft and three major aircraft carriers (see below); the USS John C. Stennis, the USS Nimitz, and the most recently commissioned USS Ronald Reagan. With all the ships in port, NBC day-to-day operations, training, and management are accomplished by 28,723 military personnel and 7,246 civilians.

To support this mission our conservation program manages some of most diverse ecosystems in the continental United States with the most unique being SCI. The seven installations represent 42,573 acres of land and water and are distributed over an area of 3,380



square miles in San Diego and Los Angeles Counties in southern California. Of the total acreages 6,005 acres developed or improved, 2510 acres are semi-improved, 128 acres are used for agriculture, approximately 748 acres of wetlands or Waters of the U.S., and the remainder is managed for wildlife and/or plant communities while supporting operational requirements. SCI also supports more than a dozen range and operational areas that are clustered within a 60 mile radius of the island.

In addition to the wetlands there are 135 acres of unique natural areas. Native trees are not common in southern California, therefore there is not a forestry program on NBC. Due to the proximity to local communities and the sensitive operational requirements hunting is not authorized on NBC. Portions of leased land that are used for military training are used for grazing and hunting, but these programs are managed by U.S. Forest Service and/or the Bureau of Land Management.



**San Clemente Island**

SCI and the 54 acres of off-shore islands and rocks support some of the most significant geological features found on NBC. The volcanic and sedimentary rock that form the bulk of SCI have been dated back to the Miocene-age. Marine terraces are the dominant island landforms and are some of the most developed along the southern California coast. Both active and stabilized sand dunes are found on SCI and in smaller numbers on NASNI.

Due to urbanization around mainland activities and the isolation of SCI, more than 1,700 individual populations of sensitive plants have been documented on SCI, including 14 endemic species and six federally listed plants. Some of the oldest records of human habitation in North America are found on the California Channel Islands, including SCI. Over 3500 archeological sites have been documented on SCI and radiocarbon dating has verified some sites to be as old as 8,000 years Before Present.

## **2. Background.**

Due to its complexity NBC developed two Integrated Natural Resources Management Plans (INRMPs), one for the mainland installations and one for SCI. Both INRMPs were completed in May 2002 and have become the standard of excellence for the Navy due their integration of ecosystem management and evaluation of no net loss of the military mission. The INRMPs have been implemented as funds have become available. All projects that support threatened and endangered species are regularly funded. Sixty three separate projects were funded during the achievement period.

The natural resources program is managed by two wildlife biologists, one botanist, and site manager on SCI with support from contract personnel. Part-time assistance is provided by our Compliance Manager, Water Program Manager and various support personnel. Natural Resources Office (NRO) staff members report to the Environmental Operations Director. The NRO is a small component of the Environmental Department, which is led by a Regional Program Manager under Commander Navy Region Southwest (CNRSW). In addition, natural and cultural resources personnel work closely with and take direction from the Commanding Officer of NBC as well as the Public Works Officer (PWO).

### 3. Program Summary.

NBC's conservation program is comprehensive however the primary focus is the management of federally listed species and their habitats. NBC supports 25 federally listed species, which is more than 27 states and the District of Columbia. The sustained increases in population numbers, of three species, the federally endangered San Clemente Loggerhead Shrike, the federally endangered California least tern and the federally threatened western snowy plover, while supporting training requirements has been the keystone of our program.



**San Clemente  
Loggerhead Shrike**

### 4. Accomplishments.



**San Clemente Island Fox**

There are many aspects of the program that deserve recognition, but three exceptional efforts stand out. First, the San Clemente Island fox was recently listed by the U.S. Fish and Wildlife Service (USFWS) on four of the eight Channel Islands, but it was not listed on SCI due to proactive management by the Navy. Due to these efforts the mortality rate over the last two years had decreased approximately 33% to 50%.

Second, SCI boasts a successful Island Native Habitat Restoration Program to ensure the long-term viability of island species through the restoration of native plant communities and long-term sustainability of Naval operations on the island. The program includes all phases of plant community restoration, including seed collection, propagation at the SCI native plant nursery, out-planting of propagated material, maintenance of installed plants and monitoring.

Lastly, the Navy created a 7.8 acre island south of NAB as part of aircraft carrier home porting project that created both sub-tidal and inter-tidal habitats from the dredged material taken from San Diego Bay. In 2003 site monitoring began and determined the island was structurally stable and provides excellent roosting and loafing habitat for a number of marine birds including various species of gulls, terns, cormorants and the federally endangered California brown pelican

### Overall Conservation Management

All aspects of the NBC NR program integrate the military mission and consider land use management as well as outdoor recreation. NBC programmed and requested all projects as described in the appropriate INRMP. Not all projects were funded and therefore were reprogrammed to ensure implementation. In addition NBC funded baseline natural resources inventories on NASNI, NOLF IB, NRRF, and SERE Training School during the achievement period. With communication and education the NRO has become integrated in the planning process for all projects on NBC that require natural and cultural resources review. The NBC PWO and our office have established clear procedures for project review, which reduces conflicts and ensures proper planning. This assists us with developing proper funding support for non-programmed NRO projects.

## **Ecosystem Management**

In compliance with DoD and Navy instructions, the NBC and SCI INRMPs and the NBC conservation program follow the principles of ecosystem management. Management strives to cross boundaries relating to federal and listed species management. NBC NR works with the USFWS Refuges, California, San Diego, and the Port of San Diego on consistent strategies.

## **Land Use Management**

NBC mainland supports over 16 ecological communities with over 250 documented plant species, including 22 sensitive species. SCI has 13 documented ecological communities. There are 447 known species of plants on SCI, including 14 SCI endemics, and 29 Channel Island endemics. Eight of these are federally listed, including the SCU Indian Paintbrush, SCI larkspur, SCI woodland star, SCI Broom, SCI bush mallow, Santa Cruz Island rock cress, and salt march bird's beak. A vegetation trend analysis program on SCI monitors plant communities status. Surveys are done every two years.

Erosion control on NBC is primarily managed through Construction Storm Water Pollution Prevention Plans (SWPPPs). SWPPPs prevent erosion and sediment from entering storm drains and the San Diego Bay and the Pacific Ocean.

Water Quality Protection is ensured through the CNRSW Storm Water Management Program. This program was implemented to meet San Diego Regional Water Quality goals and safeguard storm water discharges from Navy industrial facilities. Best Management Practices prevent or minimize the contact of potential pollutants with storm water and/or authorized non-storm water discharges. The Clean Marina Program was established at the NAB marina to ensure clean water practices. Due to the remote location of SCI and limited water resources NBC established a recycled water program on the island. The Navy uses recycled water produced at the SCI Waste Water Treatment Plant as a restricted supply for construction projects.

NBC NR works with the PWO to develop standards for using native or xeric landscaping in order to reduce costs and reduce the spread of non-natives. On SCI, NRO and SPECWAR have teamed together to landscape the SCI Maritime Operational facility with native shrubs. Approximately 100 plants have been installed to date.

## **Forest and Fire Management**

NBC does not have a forest management program due to the lack of native trees and habitats. However, NBC supports a fire management program on SCI based on a fire danger rating system. SCI program includes the maintenance of fuel breaks and fire roads and helicopter support for fires developing on the island.

## **Fish and Wildlife Management**

The mainland installations support a variety of species including 50 sensitive or rare species. SCI hosts over 600 species of fish and other wildlife. Both NBC mainland and SCI are in the Pacific Flyway therefore a large number of birds are documented on our installations. Over 250 bird species have been documented on the installations on the mainland and SCI has documented 150 species of birds and 24 resident species. NBC supports 18 federally listed species including white abalone, San Diego fairy shrimp, quino checkerspot butterfly, arroyo

southwestern toad, island night lizard, western snowy plover, California least tern, Light footed clapper rail, California brown pelican, San Clemente Loggerhead shrike, San Clemente Sage Sparrow, southwestern willow flycatcher, the least Bell' vireo, blue whale, humpback whale, sperm whale, and finback whale. The shrike, tern and plover are the most abundant in operational areas and therefore are the most closely managed.

The shrike population has increased dramatically since 2000, from a minimum of about 16 shrikes to a minimum of 80 in 2004. Over the last several years there have been record numbers of breeding pairs and offspring produced. The shrike population has also expanded away from the SCI Shore Bombardment Area. Today, only 33% of the shrike population is located within SHOBA. In March 2004, CNRSW submitted a petition to the USFWS to delist the Island Night Lizard, whose population on SCI remains high (approximately 20 million individuals) and stable. The threatened sage sparrow population continues to stabilize. A population viability analysis conducted on the sage sparrow in 2004 indicates that the species is highly resistant to environmental perturbations and there is a very high probability of long-term persistence.

The terns and plovers are primarily found on NAB Coronado and NASNI. Both of these species have flourished on NBC in the past several years. Due to proactive monitoring, regular site maintenance, site specific studies, predator control efforts, and restricting non-military personnel access the tern population has increased 9,130% since 1977 and the plover population has increased 866% since 1992. Critical habitat for the plover is also found on NBC and has not been effected by management or training.

## **Other Natural Resources**

Due to the diverse training mission and urban environment in which mainland facilities are located as well as the restricted access of SCI NBC has limited outdoor recreation programs. However, NBC does support fishing on the mainland and SCI. NAB Coronado also supports Fiddler's Cover Marina and RV Park both of which are handicap accessible. In addition, the Navy co-manages land with USFWS Refuges adjacent to the Tijuana Slough National Wildlife Refuge and allows full access for recreational opportunities including horseback riding, birdwatching and hiking.

## **Pest Management**

The CNRSW Pest Management Plan includes a process for reviewing and approving pesticide usage to reduce pesticide applications. Applicators are required to submit information on all current and new pesticide applications to technical specialists that review the data for compliance with integrated pest management concepts. The focus of the plan is on safe, environmentally sound and cost-effective control of pests through Integrated Pest Management (IPM). IPM depends on education, survey of pests, non-chemical and chemical control methods, and individual responsibility for pest prevention.

Natural Resources pest control operations include programs to control non-native invasive weeds, predatory animals, and birds. These programs are primarily completed through the NRO and include programs in non-native/invasive weed control, predator management/animal damage control, invasive species prevention, habitat restoration, BASH and agriculture outlease. One good example of the agricultural outlease program is the use of 128 acres of at NOLF Imperial Beach for purely organic farming, rather than conventional farming.

Our Botany Program has worked to eradicate invasive exotic plant species on NBC. Efforts have targeted over 20 of the most invasive species, focusing on those which have the greatest potential to contribute to the degradation of habitat for federally listed and other sensitive plant and animal species.

### **Conservation Education**

In the past several years NBC has improved our education program. We finalized a brochure for military personnel instructing them on how to avoid listed species during the training evolutions. We also developed handouts and maps for base personnel on specific species and our general conservation programs. Signs inform the general public as well as naval personnel on the presence of federally listed species. We host Boy and Girl Scouts at our MWR programs and natural resources conservation is a part of their education lectures.

### **Community Relations**

During INRMP preparation, NBC reached out to our neighbors, local communities, local environmental groups, and others to gain support and involvement.. We also regularly participate and provide access to our installations for national efforts such as the Christmas Bird Count and local efforts like the San Diego Natural History Museum's Bird and Plant Atlas.

Our conservation programs use Cooperative Agreements to access the most skilled and knowledgeable professionals to assist with management of NBC programs. We work with the San Diego Zoological Society, the US Department of Agriculture, San Diego Natural History Museum as well as a variety of schools and institutions to support our conservation goals.

### **Environmental Enhancement**

NBC mainland provides some of the only undisturbed coastline and coastal habitats in southern California. Without the land that we manage and the species that are found on our installations some of our surrounding communities would not be exposed to the diversity of nature that is found in San Diego Bay and on the Channel Islands.

### **Natural Resources Compliance Program**

NBC has several active Biological Opinions from the USFWS. Our relationship with the regulatory community is very good and we work together to resolve conflicts between military operations and the management of federally listed species and their habitats. In addition, in order to foster relationships with our counterparts in the regulatory arena we meet twice a year. NBC is supported by the CNRSW Oil Spill Response Plan as well as the Emergency Management Plan.

### **Mission Enhancement**

Our stewardship efforts are directly related to the mission in that we are directed by the Sikes Act Improvement Act to address a not less loss to the military mission in our INRMPs. The simple fact that our programs are flourishing on some of the most active Navy ranges, and the only Shore Bombardment Facility in the Navy is a testament to our success.