



**FY 2008 SECRETARY OF DEFENSE ENVIRONMENTAL AWARDS  
ENVIRONMENTAL AWARD COMPETITION  
NATURAL RESOURCES CONSERVATION  
LARGE INSTALLATION**

**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); Silver Strand Training Complex (SSTC); Naval Outlying Landing Field Imperial Beach (NOLF IB); Remote Training Site Warner Springs (RTSWS); La Posta Mountain Warfare Training Center (La Posta); and San Clemente Island Range Complex (SCIRC). NBC's primary mission is to provide the highest quality logistical support and quality of life services for the operating forces of the US Navy and for the assigned activities and other commands as needed, and to provide the right support at the right time, in the right amount, enabling our operating forces to produce the highest level of combat readiness, I.E. support the fleet, fighter and family.

Two separate Integrated Natural Resources Management Plans (INRMPs) were developed and implemented to manage the NBC's complex natural resources. The following installations are covered and are managed IAW *Naval Base Coronado INRMP*.



NASNI is headquarters for four major military flag officer staffs including Commander Naval Air Forces, and supports 21 squadrons and more than 220 aircraft. Its piers are homeport to two major aircraft carriers, the USS NIMITZ (CVN 68), and the USS RONALD REAGAN (CVN 76). Additionally, the base is home to the Navy's Deep Submergence Unit. With all ships in port, the population of the station swells to more than 36,000 active duty, reserve, and civilian workers.

NAB Coronado is the home to over 30 tenant commands with a population of approximately 5,000 personnel, including major commands such as Commander, Naval Surface Force Pacific (COMNAVSURFPAC); Commander Naval Special Warfare (SPECWAR) Command; Commander Expeditionary Warfare Training Group (EWTG) Pacific; and Commander Naval Surface Force, U.S. Pacific Fleet, responsible for the training, maintenance and crews of the approximately 90 ships of the Pacific Fleet. Also located there are most of the Naval Expeditionary and Naval Special Warfare units of the Pacific Fleet as well as the famed Navy Parachute Team, the Leap Frogs. Additionally NAB Naval Amphibious Base Coronado and its adjacent beaches provide training for Navy SEALs, amphibious insertion and other small units.

NOLF IB is located 14 miles south of San Diego and within the city limits of Imperial Beach. NOLF IB encompasses 1204 acres with 270 of those acres leased out for agricultural purposes and 284 acres leased to the State of California for a wild life refuge. The mission of NOLFIB is to handle the overflow helicopter traffic both VFR and IFR, from North Island. As a result the helicopter squadrons at North Island do a majority of their operations at Imperial Beach. It is also the home of Commander, Maritime Expeditionary Security Group One.



SSTC is a premier training facility for the military's Special Forces. Located on the Imperial Beach / Coronado border, this 450-acre facility provides an excellent training environment with waterborne approaches from both the Pacific Ocean and San Diego Bay sides. The city-like layout of the base also provides a realistic site for critical urban warfare training.

RTSWS is in a remote area near the community of Warner Springs in northeastern San Diego County and is the home for the Navy/Marine Corps west coast Survival, Evasion, Resistance, and Escape [SERE] field school. RTSWS covers 6,100 acres and trains over 1,500 students each year. RTSWS consists of a headquarters area with an administrative building, several staff barracks building, a wastewater treatment plant, and a realistic prisoner of war compound.

La Posta Mountain Warfare Training Facility is a 1,063 acre site located 50 miles east of San Diego, near the city of Campo. This site is exceptionally important because of its unique physical characteristics similar to many foreign countries. Its close proximity to most military bases in San Diego County allows for maximum training time with limited travel time and expense. The unencumbered area around La Posta makes it an ideal location for special reconnaissance training, map and compass training, and other specialized special warfare training. La Posta, like San Clemente Island, is one of the few places that allow Special Forces to train in a real life environment with limited encroachment problems.

*The San Clemente Island INRMP* was developed to manage the vast resources on the SCIRC. The SCIRC, the Navy's only remaining live fire range, is the southernmost Channel Island, covering 57 square miles (equating to 37,000 acres). The SCIRC is the cornerstone of the tactical training ranges supporting the Southern California Operations Area (SOCAL OPAREA). SOCAL supports the largest concentration of naval forces in the world. The SCI land, air, and sea ranges provide the U.S. Navy, U.S. Marine Corps, and other military services space and facilities which they use to conduct readiness training and test and evaluation activities. This integrated set of ranges and operational areas covers approximately 2,620 square nautical miles (nm). The SCIRC consists of more than six dozen ranges and operational areas; the extent of these areas range from the ocean floor to an altitude of 80,000 feet. The primary purpose of the Complex is to provide readiness training for units and personnel who deploy overseas to meet the national strategy of forward presence and global engagement. Among the evolving needs that precipitated the proposed action is the need for more training in: littoral warfare, including mine counter-measures; electronic warfare; missile firing; operations in the shore bombardment area (SHOBA), amphibious operations; and Naval Special Warfare.



### **Background**



**Four Aircraft Carriers at  
NASNI**

The seven NBC 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 (33,182) 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 wetlands there are 135 acres of unique natural areas. SCI hosts a diversity of native and endemic plants. More than 1,700 individual populations of sensitive plant locations have been documented on SCI including 14 endemic species and six federally listed plants. It is apparent that the NBC natural resources program manages some of most diverse ecosystems in the continental United States.

Both of NBC's Integrated Natural Resources Management Plans (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, and in FY 2008 a project to revise both INRMPs were funded and awarded. All projects that support threatened and endangered species are regularly funded. Eighty-six separate projects were funded during the achievement period.

The NBC Installation Commanding Officer leadership is vital to the success of the environmental programs on NBC. He provides guidance on integration of the natural resources requirements with the military mission and management direction to the Public Works Officer (PWO) and the Installation Environmental Program Manager (IEPM). The IEPM, who reports to the PWO, manages the NBC Public Works Office,

Environmental Division whose experienced and capable staff of environmental professionals together manages all aspects of NBC's environmental resources. The natural resources program (NRO) is administered by two wildlife biologists, and an environmental protection specialist (located on SCI) who report to the IEPM. The botany program is administered with support from a botanist assigned to NAVFACSW Environmental Core. Additionally, along with contingent of Navy and contract personnel, the environmental division provides the essential support needed to comply with Federal state and local regulations in a manner consistent with NBC's primary mission.

### **Program Summary**

NBC's conservation program is comprehensive and multifaceted; however the primary focus is the management of federally listed species and their habitats in a manner compatible with military operations. NBC supports 25 federally listed species, which are more than 27 states and the District of Columbia. Success of the program has been manifested by sustained increases in population numbers, of three species, the federally endangered San Clemente Loggerhead Shrike (*Lanius ludovicianus mearnsi*), the federally endangered California least tern (*Sterna antillarum browni*) and the federally threatened western snowy plover (*Charadrius alexandrinus nivosus*), with minimal impact on training requirements. INRMP objectives have been obtained such as:



**San Clemente Loggerhead Shrike**

- ✓ No net loss of the capability of military installation lands to support the military mission of the installation.
- ✓ Enforcement of applicable natural resources laws.
- ✓ Fish and wildlife habitat restoration and/or modifications.
- ✓ Wetland protection, enhancement, and restoration,
- ✓ Integration of, and consistency among, the various activities conducted under the INRMP.
- ✓ Establishment of specific natural resource management goals and objectives and time frames for proposed action (budget).
- ✓ Sustainable use by the public of natural resources to the extent that the use is not inconsistent with the needs of fish and wildlife resources.
- ✓ Public access to the military installation that when appropriate.

### **Accomplishments**

**Awards:** \* FY-07 CNO Environmental Award for Natural Resources Conservation Team. 30 January 2008. \* California Invasive Plant Council "Wildland Weeds" Program Award. 1 October 2007. \* Association of Environmental Professional (AEP) Outstanding Technical Report/Survey Award. 21 September 2007. \*USFSW Region 8 Military Conservation Award 2008. \* National Military Fish & Wildlife Association (NMFWA) Volunteer Award for Volunteer Management Support of Natural Resources to Mr. David Salerno. \* Letter of Appreciation from Commander Naval Installations to Ms. Tamara Conkle (NBC Biologist )for performing Bill Spicer's duties upon his recovery from heart surgery . \* Letter of Appreciation from National Park Service to Ms. Melissa Booker (NBC Biologist) support of the Loggerhead shrike Project

There are so many aspects of our program that deserve recognition; here are but a few.



The San Clemente Island fox (*Urocyon littoralis clementae*) 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. NBC Biologist developed a scientifically robust monitoring program for the San Clemente Island Fox. A cooperative agreement with the Nature Conservancy framed very specific requirements for a thorough scientific assessment of the fox monitoring program. As a result a more robust fox population has been identified, preventing unnecessary listing and impact to essential SCI operations. Additionally the implementation of several new programs has reduced the mortality rate and will continue to ensure a healthy population on SCI. These new programs include San Clemente Island Fox Threat Reduction: Road Side Vegetation Management which is expected to reduce the number of roadside mortalities; Pathology & Veterinary Services that will provide comfort, care and treatment of sick and injured foxes, provide gross diagnostic & necropsy examination (e.g., histology), maintain Fox Morbidity & Mortality Database, and provide vaccination to a subset of the

Island fox population; and a research study on the biology and life history of the island fox is being conducted by Colorado State University. As a result the fox population has been estimated at 1094 foxes; the most robust numbers to date.

The goal of the San Clemente Island Native Habitat Restoration Program is to ensure the long-term viability of island species through the restoration of native plant communities, and to increase the understanding that functioning ecosystems ensure the long-term success of SCI Naval operations. Through FY07 Botanist Collected 154g of seed from 16 native perennial species and one annual species; propagated/maintained ~5,322 plants in the greenhouse; and installed 1,563 out-plantings at five sites (3 new sites, 2 expansions).



The San Clemente loggerhead shrike was listed as endangered on August 11, 1977 due to its declining population size from past habitat degradation, feral predators, and anthropogenic threats. Between 1985 and 1998 the population estimates ranged from 6 (1988) to 16 pairs (1994). After 1998, efforts to increase the distribution and abundance

of the loggerhead shrike were intensified and the San Clemente Recovery Program began to play an important role in

Table 10. San Clemente Island Loggerhead Shrike Breeding Pairs from 1994 to 2007

Year	1994	95	96	97	98	99	2000	01	02	03	04	05	06	07
Pair Estimate	32	29	16	20	14	22	22	49	40	40	55	40	50	48

improving the status of the San Clemente loggerhead shrike. The shrike population increased from four breeding pairs in 1991 to over 40 breeding pairs in 2005. In 2006 and 2007, the numbers of breeding pairs were respectively 50 and 48. The 2008 breeding season monitoring positively identified 77 adults, with the possibility of an additional 6-10 individuals not definitively identified. Breeding success in 2008 was approximately 70%, the highest percentage recorded since the monitoring project began. Similarly to the 2008 success rate, productivity of 2.09 in 2008 exceeded previous observations. The total number of fledglings confirmed alive in 2008 was 183; of which, 146 were confirmed to have survived to independence. Additionally 34 shrikes were released in 2008 and at least 13 had been confirmed persisting by the end of September. While numbers continue to increase adaptive management strategies have reduced the number Shrike nest within SHOBA impact areas. Currently ~ 30% of the population remains within SHOBA.



Finally, as a result of the program successes on SCI a delisting package for San Clemente Island Night Lizard was submitted to the USFW Carlsbad Office. The petition is working its way through the process and we fully expect that the species will be delisted.

### **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 no net 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. In November 2008 we completed a lengthy programmatic level consultation with the FWS service in support of the SOCAL Environmental Impact Statement (ROD expected Jan 09). As a result a Biological Opinion (FWS- LA-09B0027-09F0040) was issued to cover the existing and future operations on SCI. NBC biologist worked very closely with the operational communities affected by this BO and together drafted a list of conservation measures, and terms and conditions that were amendable to both the FWS and the Navy. This action will maintain existing training and enhanced training opportunities by expanding the number and size of amphibious landings, develop 19 additional Naval special Warfare (NSW) Training Areas and Ranges (TARS), increase the number of NSW BUDs training sites, and support ship to shore bombardment operations

### **Overall Conservation Management**

All aspects of our program integrate the military mission and consider land use management as well as outdoor recreation.



## **Other Natural Resources**

NBC does support fishing on NASNI, NAB, and SCI. Fiddler's Cover Marina and RV Park both of which are handicap accessible provide camping along the Silver Strand beaches and boating within San Diego Bay. 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, bird watching and hiking

## **Invasive Species Control and Pest Management**

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.

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 we have made many efforts to improve our education program. We have finalized a brochure for military personnel that direct them on ways to avoid federally listed species during the planning process and training evolution. We also developed handouts and maps for permanent

personnel, transient personnel, as well as recreational users on specific species and our general conservation programs. Interpretative Panels (see above) and signs are used to inform the general public as well as naval personnel on the presence of federally listed species and management techniques. Additionally the NRO staff supported DoD and USFWS Course "Maintaining and Implementing Sustainable INRMPs giving in San Diego, Ca, and (March 2008).

We host the Boy/Girl Scouts at our Morale Welfare and Recreation programs and natural resources conservation is a part of their education lectures, we sponsor several beach clean-up events every year, and sponsored a local children's group (Rescue Rangers) for a weekend on SCI where they learned about the shrike conservation efforts and completed several self-help projects including shoring-up SCI Shrike Release Program building staircase and patio. Lastly, as part of the mainland INRMP we developed a mini-INRMP for our lessee, YMCA Camp Surf, that could be used as an educational tool for the children while benefiting our conservation efforts and complying with the primary INRMP.



## **Community Relations**

During the preparation of the two EISs (SOCAL and SSTC) and one supplemental EIS, NBC reached out to our neighbors, local communities, local environmental groups, educational institutions, political parties, tribes, and all applicable regulatory agencies to gain support and involvement as we developed the documents. 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.

In support of the International Coastal Clean-up Day Naval Base Coronado (NBC) Sailors picked-up trash along the beaches of the Silver Strand Training Complex (South), near YMCA's Camp Surf, located north of the City of Imperial Beach. The event was reported in the Navy compass under the headline "Coronado Sailors participate in International Coastal Clean-up Day" (Written by Emily Butcher 26 September 2008).

Our conservation programs use Cooperative Agreements to access the most knowledgeable and skilled professionals to assist us with the implementation and management of our 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.

The NRO staff members are members of several professional organizations including: The Wildlife Society, national and local Audubon societies, the Cooper Ornithological Society, Bat Conservation International, The Wildlife Conservation Society, California Native Plant Society and the National Military Fish and Wildlife Association.

### **Environmental Enhancement**

NBC, specifically the mainland assets, 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. In addition to our neighbors our management program exposes the sailors and civilians that work on NBC to the benefits of a natural resources stewardship and its benefits.



A Wetlands Restoration Project is in process to recreate a native coastal marsh habitat for native plant and wildlife species in a storm water drainage channel located at the Sea 'n' Air Golf Course in the southeast corner of NASNI. This restoration plan is in accordance with the 2002 Naval Base Coronado Integrated Natural Resource Management Plan (INRMP). Additional efforts include a Burrowing Owl Management



Plan and associated Monitoring. During February and March 2008 a pair of Western Burrowing Owls were relocated from a construction site in Orange County to Naval Base Coronado Naval Air Station North Island. The birds were brought to the installation to enhance its declining burrowing owl population. The release was accomplished through a cooperative effort that included the Navy's Environmental Department, U.S. Fish and Wildlife Service, and California Department of Fish and Game. Finally, we reported the second known successful hybridization in the wild between a Yellow-Crowned Night-Heron (*Nyctanassa violacea*) and Black-crowned Night-Heron (*Nycticorax nycticorax*), and the first with observations of young on the nest. A report was developed by NBC biologist and it will be published in the scientific journal *Western Birds* (issue 39 #4).

### **Natural Resources Compliance Program**

Due to the number of federally listed species that occur on NBC we have several active Biological Opinions from the USFWS. We use our excellent relationship with the regulatory community to work together to resolve conflicts between military operations and the management of federally listed species and their habitats. We meet frequently with the USFWS to update them on our programs and to discuss critical issues. NBC is supported by the CNRSW Oil Spill Response Plan as well as the Emergency Management Plan. Both these documents include guidance on how natural resources, specifically wildlife, are to be handled in the cases of emergencies or disasters that could potentially effect the installation.

During the achievement period NBC received \$3,283,548 in non-labor funds in Fiscal Year (FY) 07 and \$4,458,976 in non-labor funds for FY 08 to support the conservation programs and to implement the INRMPs.