

US EPA ARCHIVE DOCUMENT



Naval Base Ventura County

EPA's Federal Environmental Leader

Naval Base Ventura County (NBVC) manages a highly successful, award-winning environmental program that balances stewardship of its extensive natural and cultural resources with its critical mission as a major aviation shore command and Naval Construction Force mobilization base.

NBVC is composed of three operating facilities, each with its own unique environmental challenges: Point Mugu and Port Hueneme, both located along the Pacific coastline in southwestern Ventura County, Calif., and San Nicolas Island (SNI), located 65 miles offshore. Its environmental footprint is varied, from the wetlands at Point Mugu, the unique species at SNI, to landmark achievements in energy savings at Port Hueneme.



Mugu Lagoon, as seen from Laguna Peak during a high tide, is the dominant landscape feature at NBVC Point Mugu. Mugu Lagoon is the coastal termination point of the Calleguas Creek Watershed, which drains approximately 343 square miles of Ventura County. (California).

NBVC is a major aviation shore command and Naval Construction Force mobilization base, providing airfield, seaport and base support services to fleet operating forces and shore activities. Its objectives are to provide environmental services that enhance mission readiness and are protective of the environment by:

- 1) Coordinating and minimizing environmental constraints to military mission;
- 2) Ensuring compliance with environmental regulatory requirements;
- 3) Providing sound stewardship of natural and cultural resources; and
- 4) Working closely with the local community.

NBVC plans and executes strategies to protect the environment, along with its threatened and endangered species and to comply with environmental regulations in support of military operations, readiness, and quality of life.

In addition to managing current projects and their environmental aspects, the NBVC Environmental Division also reviews all new projects for any possible environmental impacts. Such aspects may include air and water quality, natural and cultural resources, and potential for spills and releases associated with projects that manage hazardous substances or generate hazardous waste.



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NBVC has implemented the Environmental Management System and has self-declared as fully conformed to the ISO 14001:2004 standards. In support of the EMS, NBVC's success depends on continual improvement as outlined in the objectives of the Environmental Policy and those within the Environmental Division. NBVC has won several Navy and Defense Department awards for its efforts to conserve and restore natural resources. Successful environmental goals that have been achieved at NBVC include the following achievements:

- Harbor Dredging Project – From initiating the Environmental Planning process in November 2007, through the engineering design to construction, the Port Hueneme Dredging Project project was completed in only 21 months in July 2009. The project finished ahead of schedule and approximately \$1.0 million under budget. The project used a Confined Aquatic Disposal (CAD) cell to isolate the contaminated sediment, which was the first time a CAD method was used in southern California.



Naval Base Ventura County Point Mugu encompasses approximately 890 hectare (ha) of jurisdictional delineated wetlands, with one of the largest remaining salt marsh plant communities in Southern California. The estuarine coastal salt marsh provides habitat for numerous invertebrate, fish, bird, and plant species, including one of the largest populations of federally endangered Salt Marsh Bird's-Beak (*Cordylanthus maritimus maritimus*).

- Partnerships – NBVC formed a partnership with the Calleguas Creek Watershed Committee to address regional surface water contamination including the Mugu Lagoon at NBVC. The Total Maximum Daily Load (TMDL) program is used to clean up the entire watershed. The TMDL program is projected to last at least 30 years and includes monitoring, special studies, hot spot cleanup, and implementation of best management practices to remedy pesticide, PCB, metals, toxicity, sedimentation, and bacterial contamination. In return, the Navy projects to save \$34.5M, which is primarily due to: 1) A LA Water Board concurrence to use natural attenuation and ongoing source removal to remedy Mugu lagoon (~\$25M in CERCLA savings) and 2) A cost share proration policy for watershed monitoring that is based on each parties pollutant contribution rather than geographically, which reduced the Navy's share from ~20% to ~1% (~\$9.5M in savings).
- Migratory Bird Monitoring and Mist Netting Program – In FY09, a total of 107 individuals of 35 species were captured under NBVC's migratory bird banding program. Three species previously undocumented on base were captured including the federally and state endangered



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Least Bell's Vireo. Since FY01, 6 to 12 basewide shorebird surveys have been conducted per year. The baseline data provides information on declining and sensitive bird species and may help provide species specific data for future military operations.

- Eelgrass Restoration Program – After declining and disappearing from Mugu Lagoon in the mid-1980s, an attempt was made to re-establish an eelgrass population. In FY10, five sites in the estuary were re-planted with eelgrass. Once established, the eelgrass will restore a missing piece of the lagoon's ecology and also provide valuable habitat for a diverse assemblage of fish and invertebrate species.
- Marine Mammals – One of only a few mainland haul outs for Pacific harbor seals in Southern California, NBVC offers a unique refuge for a resident population ranging from 250-500 seals at Point Mugu and about 81,000 adult elephant seals, California sea lions, and Pacific harbor seals at SNI.
- Although impacts to wetland resources from military operations and base development are sometimes unavoidable, NBVC strives for continuous habitat improvement. Approximately 35 acres of wetlands have been restored at Point Mugu and applied to a wetland mitigation bank to support Navy projects. NBVC initiated preparation for a wetland mitigation bank, which will contain current and future restored wetlands to offset future impacts to wetland resources.



Saltwater intake beach wells were constructed on the Coast Guard Beach at San Nicolas Island to ensure a sufficient water supply was available for the reverse osmosis plant, which is the primary source of potable water for the island. Due to the unique design of the saltwater intake wells and the absence of a California Department of Water Resources construction standard for saltwater intake beach wells, the Environmental Division at Naval Base Ventura County had to work closely with the California Department of Public Health and the County of Ventura to obtain well design waivers and the required permits. The successful installation of the seven saltwater intake beach wells increased the water supply availability by 200%.

Much as with environmental goals, NBVC has been a proactive leader for the Navy in water conservation and energy reduction. The work done by the Energy Program Office has enabled NBVC to exceed the reduction rates required by Executive Order 13423.

- NBVC has achieved a 22.95% reduction in energy intensity as of the end of 2010 when compared to the 2003 baseline. This reduction exceeds the required EO 13423 goal of 15% for the end of 2010. The 25.1% reduction in energy intensity equates to a 24,931,000 KWH annual reduction in electricity and a 43,502 MBTU annual reduction in gas usage as compared to the



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FY2007 baseline. As of 2010 NBVC has solar photovoltaic systems at 7 facilities. These 7 facilities combine to 720 kilowatts of generation capacity. This equates to 1,440,000 kilowatt hours of annual generation. In addition to solar photovoltaic, NBVC has installed solar thermal water heating systems at both the Port Hueneme and Point Mugu swimming pools. Combined these system generate 7,079 MBTU worth of heating annually.

- NBVC has achieved a 52.1% reduction in water usage as of the end of 2010 when compared to the 2007 baseline. This reduction exceeds the required EO 13423 goal of 6% for the end of 2010. The 53.3% reduction in annual water usage equates to a savings of 332,552,000 gallons per year as compared to the FY2003 baseline.
- NBVC has earned Platinum Level of Achievement for the Secretary of the Navy (SECNAV) Energy and Water Management Award for 9 of the last 10 years. This honor was earned through such projects as replacing lighting in a highbay warehouse, gymnasium and hangar with T8 fixtures and spectrally enhanced lamps, along with automated lighting controls. Water reduction initiatives included new underground irrigation systems and evapo-transpiration (weather-based) controllers that save 52 million gallons of water annually.
 - Annual NBVC Energy Reduction compared to 2007 baseline: 24,931,000 KWH (\$3.24 Million)
 - Annual NBVC Green Energy Generated: 1,440,000 KWH (\$187 Thousand)
 - Annual NBVC Water Reduction compared to 2003 baseline: 333 million-gallons (\$1.59 Million)

Fulfilling our mission in an environmentally sound manner is of fundamental importance, and complete support from all is necessary to help create a healthier and safer environment for all persons at NBVC.

For more information, visit <http://www.navyregionsouthwest.com/go/doc/4275/1178103/>.