



DEPARTMENT OF THE NAVY  
NAVAL BASE VENTURA COUNTY  
311 MAIN ROAD, SUITE 1  
POINT MUGU, CA 93042-5033

IN REPLY REFER TO:

5090  
Ser N46VCS/1084  
18 Sep 13

Mr. Ejigu Solomon  
Storm Water Compliance and Enforcement  
Los Angeles Regional Water Quality Control Board  
320 West 4<sup>th</sup> Street, 200  
Los Angeles, CA 90013

RECEIVED  
SEP 20 2013  
DIVISION OF WATER QUALITY

Dear Mr. Solomon:

Enclosed is the Naval Base Ventura County (NBVC) San Nicolas Island (SNI) Compliance Plan as required by the State Water Resources Control Board Resolution No. 2012-0031 amending the General Exception to the California Ocean Plan for Selected Discharges into Areas of Special Biological Significance, including Special Protections for Beneficial Uses.

NBVC SNI is participating in regional Areas of Special Biological Significance monitoring program in southern California.

If you have questions regarding this submittal, please contact our Ms. Alicia Thompson at (805) 982-2969.

Sincerely,

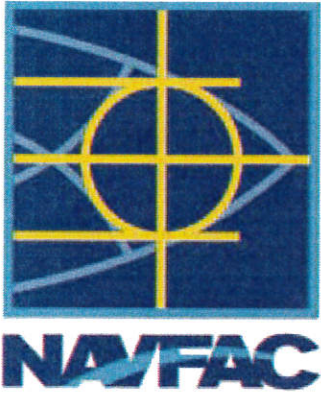
D. T. SHIDE  
Environmental Program Director  
By direction of the  
Commanding Officer

Enclosures: 1. Naval Base Ventura County San Nicolas Island  
Compliance Plan

Copy to:  
Dr. Mariela Carpio-Obeso  
Division of Water Quality  
Ocean Standards Unit  
State Water Resources Control Board  
P.O. Box 100  
Sacramento, CA 95812-0100

**ENCLOSURE (1)**

**NBVC SNI  
COMPLIANCE PLAN**



**Areas of Special Biological Significance  
Compliance Plan for San Nicolas Island &  
Begg Rock (ASBS 21)**

**Naval Base Ventura County  
San Nicolas Island, Ventura, California**

**September 18, 2013**

**Prepared by:**

**Alicia Thompson  
Water Quality Program Manager  
Naval Base Ventura County  
Port Hueneme, California**

## ACRONYMS AND ABBREVIATIONS

ASBS	Areas of Special Biological Significance
ACSCE	Annual Comprehensive Site Compliance Evaluation
BMP	Best management practice
DA	Drainage area
Navy	U.S. Navy
NBVC	Naval Base Ventura County
NEPA	National Environmental Policy Act
RWQCB	Regional Water Quality Control Board
SMARTS	Storm Water Multiple Application and Report Tracking System
SNI	San Nicolas Island
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	California State Water Resources Control Board
SCCWRP	Southern California Coastal Water Research Project
TBD	To Be Determined

## 2.0 COMPLIANCE PLAN MAP

[Figure 1](#) depicts surface water drainage routes including areas of possible sheet flow runoff and the priority discharge at NBVC SNI outfall SNI015. The map also shows the storm water conveyances in relation to other features such as the airport terminal and airfield, barge landing, hazardous waste storage facility, Nictown (contains service areas), power plant, waste water treatment plant, and other areas prone to erosion.

The Navy and SWRCB have agreed on the number and locations of ASBS core, receiving water, and visual monitoring locations at NBVC SNI. Sampling and visual monitoring locations are identified on [Figure 1](#).

The SWPPP contains procedures for updating the ASBS compliance plan and compliance plan map when changes are made to the storm water conveyance facilities. The requirement to update the plan and map and submit the revised compliance plan to SWRCB, concurrent (or within 90 days if new discharges are identified) with annual storm water reporting, is also included in the SWPPP.



#### 4.0 STORM WATER DISCHARGES (WET WEATHER FLOWS)

The Navy identified and delineated thirteen drainage areas with industrial activities at NBVC SNI. These are described in the SWPPP ([Navy 2013](#)). The drainage areas were delineated based on topography; some, but not all, discharge to the Pacific Ocean.

Many of the drainage channels that connect with the Pacific Ocean start atop the plateau. Because the distance from the plateau to the ocean is significant, most surface flow eventually dissipates, infiltrates into the soil, or ends up as sheet flow across vegetated areas. For those drainages that contain defined channels that connect to the Pacific Ocean, storm water runoff rarely reaches the ocean because of natural BMPs such as infiltration and vegetative filtration along the drainage route.

Surface water runoff calculations were conducted on drainage areas identified by the SWRCB as potential priority discharges. Based on soil properties, topography, vegetation, and the precipitation record for NBVC SNI, surface runoff calculations revealed that the most common type of runoff event (a 0.25 to 0.5-inch storm) occurs under initially dry soil conditions and only generates runoff from paved areas, with the exception of over-steep marine terraces in ravines and canyons, such as above the barge landing. Sparsely vegetated, oversteep ravines and canyons with exposed marine terraces are expected to contribute the majority of solids loading. Comparatively minimal erosion is expected from grassland/scrub areas due to extensive vegetative cover and gentle topography, with discharge from urban/industrial areas a minor contributor, based on the small urban/industrial acreage and location on the gently sloped grassland/scrub plateau. Watershed-wide runoff is limited to a few large storms a year, or a series of smaller storms. With the exception of oversteep ravines and canyons, storms that could generate runoff that would reach the ocean are uncommon and may occur at a frequency of every 2 to 3 years for a 1.5-inch storm, and up to every 53 years for the largest storms on record. The Navy is developing a surface water runoff prediction model that will be submitted to the SWRCB in fall 2013. In accordance with SWRCB requirements for storm water discharges into an ASBS, storm water samples from selected sites (as described below), are analyzed for core discharge monitoring; some sites are monitored visually and sampled if runoff is sufficient and sampling is achievable ([Figure 1](#)) ([SWRCB 2012](#)). Storm water samples from selected sites are analyzed and compared to samples collected at the selected ocean water receiving reference site on the west side of the island, and more importantly, from the regional Bight reference values derived from Southern California Coastal Water Research Project (SCCWRP). The 2012-2013 regional reference values are yet to be determined, due to insufficient storms in the 2012-2013 season. It is anticipated that SCCWRP will publish the 2012-2014 reference values by 2015. In addition, for the purposes of Navy review and oversight, the California Ocean Plan's ([SWRCB 2009](#)) water quality objectives for the protection of marine aquatic life are also used to identify potential contaminants that may affect the ocean environment in ASBS 21.

[Figure 1](#) shows all ASBS monitoring sites as well as drainage area boundaries. The SWPPP details the Navy's ongoing compliance with surface water discharges that may reach the Pacific Ocean. Since NBVC SNI is not a heavy industrial-use area, and much of the use is related to military testing and training, potential contaminant and anthropogenic discharges to the Pacific Ocean are minimal.

The barge landing has been identified as the primary priority ASBS discharge area, and was selected by the Navy and Regional Water Quality Control Board (RWQCB) as the one location where receiving water would be sampled as part of the 2012-2013 ASBS monitoring program. The barge landing is located at the southern end of Beach Road and is the staging area for the transport of materials on and off the island from the pier ([Figure 1](#)). As identified in the SWPPP, the barge landing is located in Drainage

these locations is on Beach Road or East NAVFAC Road, with nearby beach tidelines ranging from 140 to 1000 feet from the points of discharge. The outfalls are not manmade, and are natural, steeply eroded canyons that end abruptly at the beach back dunes. During rain events, it is nearly impossible to access these sites and potentially unsafe for personnel to observe flow. Surface water run-off modeling was performed at each of these drainages and found that due to the high permeability of the soils and sands at the points of discharge, rarely does surface water runoff make it to the ocean (report in progress). The Navy will attempt to observe these areas during rain events if circumstances allow, but at present, no additional BMPs are needed at the source areas of these drainages other than what is already specified in the 2013 revised SWPPP (Navy 2013).

has been identified for visual monitoring and discharges from an open canyon on the south side of the NBVC SNI airfield. However, most of the runway run-off drains to the northwest of SNI014. The Navy and the SWRCB agreed to visually observe this site during rain events but no observations were able to be performed to date due to unpredictable rapid rain events. The Navy will continue to perform core and receiving water monitoring at the barge landing and observe storm water flows at SNI014 to continue to implement BMPs that will prevent anthropogenic sedimentation into the nearby ocean.



**TABLE 1: LIST OF BMPS IMPLEMENTED AT NBVC SAN NICOLAS ISLAND**

<b>BMP No.</b>	<b>BMP Title</b>
001	Label All Drums, Cans, Containers, Tanks, and Valves
002	Restrict Access to Area and Equipment
003	Perform Regular Cleaning
004	Avoid Hosing Down the Site
005	Perform Regular Pavement Sweeping
006	Control Spills
007	Place Trash Receptacles at Appropriate Locations
012	Construct Berm or Dike Around Critical Areas
013	Pave Bermed Areas
014	Provide Valve for Outlet Pipe in Containment Area
015	Recycle
016	Store Waste and Recycling Materials in Proper Containers
017	Limit Significant Materials Inventory
018	Provide Roof to Cover Source Area
021	Reduce Waste
026	Routinely Clean Catch Basins and Outfalls
028	Keep Equipment and Vehicles Clean
029	Maintain Equipment in Good Condition
033	Check Vehicles and Equipment for Leaks
036	Park Vehicles or Equipment Indoors or Under a Roof
037	Park Vehicles on an Impervious Surface
038	Designate Special Areas for Draining or Replacing Fluids
042	Discharge Wash Water to a Sanitary Sewer
044	Use Drip Pans Under Leaking Equipment
045	Perform Equipment Maintenance at Designated Areas
047	Conduct Maintenance within a Building or Covered Area
048	Reduce the Amount of Liquid Cleaning Agents Used
049	Centralize Liquid Solvent Cleaning to One Location
054	Properly Store Containers
057	Do Not Store Used Parts or Containers Directly on Ground
058	Store Batteries in a Secondary Container
059	Do Not Allow Open Flames Near Flammable Material
061	Employ Proper Handling Procedures to Transport Materials and Waste
061B	Store Liquids and Significant Materials within a Building or Covered Area
064	Monitor Major Fueling Operations
066	Eliminate Topping Off Tanks
069	Restrict Access to Tanks
070	Lock Fuel Tanks When Not in Use or on Standby
071	Keep Tanks, Piping, and Valves in Good Condition
072	Protect Tanks from Being Damaged by Vehicles
098	Construct Oil/Water Separator
111	Regularly Inspect and Test Equipment
113	Conduct Personnel Training Regarding the SWPPP
115	Store Containers Inside Secondary Containment
118	Routinely Report Any Observed Non-Storm Water Discharges

*Notes:*

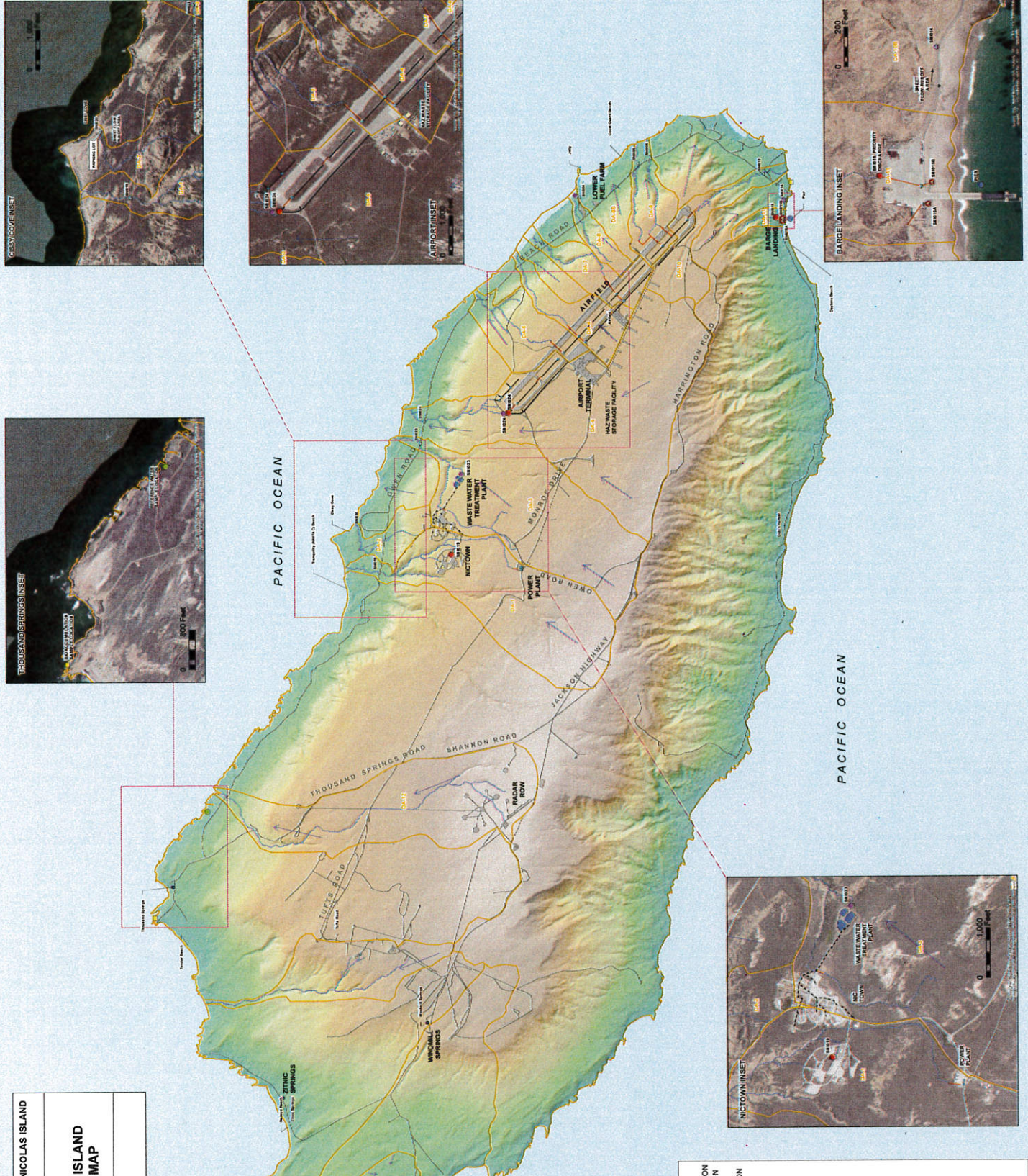
BMP Best Management Practices  
 SWPPP Storm Water Pollution Prevention Plan

## 7.0 REFERENCES

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- SWRCB. 2009. *California Ocean Plan*. State Water Resources Control Board, California Environmental Protection Agency.
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- URS. 2009. ASBS Bight'08 Sampling, Second Storm Event – March 2009.
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- Vedder, J. G., and R. M. Norris. 1963. "Geology of San Nicolas Island." U.S. Geological Survey Professional Paper 369:1-65. U.S. Government Printing Office, Washington, D.C.



**FIGURE 1  
ASBS 21 SAN NICOLAS ISLAND  
COMPLIANCE PLAN MAP**



**LEGEND**

- REFERENCE WATER SAMPLE LOCATION
- RECEIVING WATER SAMPLE LOCATION
- CORE SAMPLE LOCATION
- BIOACCUMULATION SAMPLE LOCATION
- VISUAL MONITORING
- SPRING
- CATCH BASIN
- OUTFALL

**STORM DRAINAGE**

- CONCRETE LINED DITCH
- CULVERT (UNDERGROUND)
- DIRT LINED DITCH
- SURFACE WATER DRAINAGE
- DRAINAGE DIRECTION
- SANITARY SEWER

**DACT**

- DRAINAGE AREAS
- WASTE WATER PONDS
- BUILDINGS
- PAVED AREAS
- WATER

0 2,000 Feet

DATE: 08/2015  
DRAWN BY: [Name]  
CHECKED BY: [Name]