

VANDENBERG AIR FORCE BASE



Storm Water Management Plan

December 2009

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BASIC PLAN

REFERENCES:

a. Air Force Directives Requiring this Plan.

Air Force Instruction (AFI) 32-7041, *Water Quality Compliance*, 10 December 2003, which implements Air Force Policy Directive (AFPD) 32-70, *Environmental Quality*, 20 July 1994

AFI 90-801, *Environment, Safety, and Occupational Health Councils*, 25 March 2005

Department of Defense (DoD) Directive 4715.10, *Environmental Security*, 24 February 1996

b. Other Plans Supported by this Plan.

Draft *Wastewater Management Plan*, January 2009

Draft *Storm Water Pollution Prevention Plan*, January 2009

c. Other Documents Supporting this Plan.

Water Pollution Control Act of 1972 (Clean Water Act, or CWA), Title 33, United States Code (U.S.C.) 1251 and Section 402(p)

Water Quality Order (WQO) No. 2003-0005-DWQ, *National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000004, Waste Discharge Requirements (WDRs) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems* (Small MS4 General Permit) State Water Resources Control Board (SWRCB), 30 April 2003
Central Coast Water Quality Control Plan (Basin Plan), Central Coast Regional Water Quality Control Board (CCRWQCB), 8 September 1994 (Under revision)

Porter-Cologne Water Quality Control Act, Title 23, California Code of Regulations (CCR)

Phase II Storm Water Final Rule, Title 40, Code of Federal Regulations (CFR), Parts 9, 35, 122, 123, 124, and 131

Notification to Traditional, Small MS4s on Process for Enrolling Under the State's General Permit for Storm Water Discharges, CCRWQCB, 15 February 2008

Vandenberg AFB 2008 General Plan, 2008

Water Quality Control Plan Ocean Waters of California, State Water Resources Control Board, 2005

Municipal Stormwater Program Effectiveness Assessment Guide, California Stormwater Quality Association, 2007

1. **SITUATION.** Execution of this plan will ensure continued operation of the mission through compliance with applicable laws and regulations and Air Force policy for the management and control of municipal storm water discharges from Vandenberg Air Force Base (AFB).

2. MISSION. This plan establishes base policy for managing discharges to the Vandenberg AFB municipal separate storm sewer system (MS4) including the Santa Ynez Peak Optical Site and Anderson Peak Optical Site. This plan also assigns responsibility for operation, monitoring, and reporting requirements in support of the Storm Water Management Program.

3. EXECUTION.

a. Purpose. This Storm Water Management Plan (SWMP) was prepared by the Air Force pursuant to the State Water Resources Control Board (SWRCB)-adopted NPDES General Permit No. CAS000004, *WDRs for Storm Water Discharges from Small MS4s* (Small MS4 General Permit [SWRCB 2003]), provided in Appendix 1. This SWMP will:

- (1) Provide a framework for identifying, assigning, and implementing best management practices (BMPs) intended to reduce the discharge of pollutants from the Vandenberg AFB MS4 and to protect water quality.
- (2) Serve as a planning and guidance document to be used by military personnel, civilian staff, contractors, and members of the general public at Vandenberg AFB who have authority to access the base.
- (3) Function as a living document that is amended to address changes in the Small MS4 General Permit requirements, Air Force organizational structure, responsibilities, and goals.
- (4) Identify techniques and measurable goals for measuring BMP effectiveness.
- (5) Define a 5-year schedule for Storm Water Management Program implementation to comply with the requirements of the Small MS4 General Permit.

b. Regulatory Background. The United States Environmental Protection Agency (U.S. EPA) administers the federal Water Pollution Control Act of 1972 (33 U.S.C. 1251-1387), or CWA. In 1987, the CWA was amended to add Section 402, which established a framework under the NPDES Program for regulating discharges from MS4s to waters of the United States. Phase I federal storm water regulations promulgated in 1990 began the implementation of Section 402 regulations by establishing permit application requirements for discharges from a MS4 serving a population of 100,000 or more. Phase II federal storm water regulations promulgated in 1999 expanded the existing Phase I program by addressing storm water discharges from small MS4s for communities with a population less than 100,000. As established by the Porter-Cologne Water Quality Control Act of 1962 and regulated under Title 23 of the CCR, the SWRCB administers Phase I and Phase II programs in California and adopted the Small MS4 General Permit in 2003. Management and administration of the MS4 storm water program is the responsibility of nine Regional Water Quality Control Boards (RWQCBs).

- (1) The SWRCB identified Vandenberg AFB as a “non-traditional” (e.g., public campuses, military bases, and prison and hospital complexes) small municipal separate storm sewer system (MS4) requiring coverage under the Small MS4 General Permit.

Vandenberg AFB and two of three geographically separate units (GSUs), Santa Ynez Peak Optical Site (OS) and Anderson Peak OS, fall under the jurisdiction of the CCRWQCB, Region 3, located in San Luis Obispo, California. The third GSU, Pillar Point Air Force Station (AFS), is under the jurisdiction of the San Francisco Bay RWQCB (SFBRWQCB), Region 2. A map of the Vandenberg AFB MS4 is provided in Appendix 2 (Figure 1).

(2) In a letter dated 15 February 2008, entitled *Notification to Traditional, Small MS4s on Process for Enrolling Under the State's General Permit for Storm Water Discharges* (CCRWQCB 2008), the CCRWQCB defines a newly established process for SWMP approval and described expectations for SWMP content necessary for compliance with the Small MS4 General Permit (refer to Appendix 3 for letter). The CCRWQCB directs MS4s, including Vandenberg AFB, to develop BMPs in the SWMP to achieve four additional water quality protection conditions not specifically defined within the Small MS4 General Permit. These conditions and their associated implementation requirements are as follows:

(a) Maximize Infiltration of Clean Storm Water, and Minimize Runoff Volume and Rate. This condition directs the Air Force to present a schedule for developing and adopting control standards for hydromodification. Hydromodification control standards include:

1 Numeric criteria for controlling storm water runoff volume and rates from new development and redevelopment;

2 Numeric criteria for stream stability required to protect downstream beneficial uses and prevent physical changes to downstream channels that would adversely affect the physical structure, biologic condition, and water quality of streams;

3 Specific applicability criteria, land disturbance acreage thresholds, and exemptions;

4 Performance criteria for hydromodification control BMPs and an inspection program to ensure proper long-term functioning; and

5 Education requirements for appropriate municipal staff regarding hydromodification and low-impact development.

(b) Protect Riparian Areas, Wetlands, and Their Buffer Zones. This condition directs the Air Force to present a strategy to adopt and implement BMPs and/or other control measures to establish and maintain a minimum 30-foot buffer zone for riparian areas and wetlands.

(c) Minimize Pollutant Loading. This condition directs the Air Force to develop a strategy to reduce pollutant loading through the use of BMPs and/or other control measures including volume- and/or flow-based treatment criteria.

(d) Provide Long-Term Watershed Protection. This condition directs the Air Force to present a strategy to develop a watershed-based Hydromodification Management Plan (HMP). The CCRWQCB recommends the incorporation of Low Impact Development (LID) strategies within the HMP, with the goal of post-construction storm water management that achieves an effective impervious area of no more than 3 to 10 percent of watershed area within Vandenberg AFB boundaries, depending on local conditions.

c. Vandenberg AFB Overview. Vandenberg AFB encompasses 99,579 acres on the south-central California coast, approximately 275 miles south of San Francisco and 140 miles northwest of Los Angeles, within Santa Barbara County. The base is home to the 30th Space Wing and is used primarily for missile testing and satellite launches. Launch operations involve a combination of civilian, military, and commercial interests. Approximately 80 percent of the base is undeveloped (Vandenberg AFB 2008 General Plan).

(1) Geographically Separate Units (GSU). Launch activities at Vandenberg AFB are currently supported by two active GSUs: Pillar Point AFS and Santa Ynez Peak OS. Historical operations were conducted at Anderson Peak OS; however, the Air Force is in the process of relinquishing control of the property. The Air Force is also in the process of acquiring a small piece of land from the United States Coast Guard at Point Conception which is to be used as an OS in the future. Since this facility is not currently Air Force property, it is not discussed further in this document. Brief descriptions of Pillar Point AFS, Santa Ynez Peak OS, and Anderson Peak OS are provided below.

(a) Pillar Point AFS, owned and operated by the US Air Force, is located on a small peninsula near Half Moon Bay, California, approximately 23 miles south of San Francisco, at an elevation of approximately 165 feet above sea level. The site encompasses approximately 44 acres. The station has a normal daily population of approximately 15 employees. On-site facilities include offices, antenna and radar equipment, and storage buildings.

(b) Santa Ynez Peak OS, operated by the US Air Force under a Special Use Permit, is located approximately 42 miles southeast of Vandenberg AFB at an elevation of 4,133 feet above sea level. The site is approximately an acre in size and only occasionally staffed. The site is operated under a Memorandum of Understanding between the Federal Aviation Administration, the Western Space and Missile Center, and a Special Use Permit from the Department of Agriculture through the U.S. Forest Service. Land surrounding the site is part of the Los Padres National Forest.

(c) Anderson Peak OS, leased by the US Air Force from the US Forest Service, is located approximately 106 miles north-northwest of Vandenberg AFB at an elevation of approximately 4,020 feet above sea level. The site is less than an acre and is in "caretaker" status and is not staffed.

(2) Land Use. Land use on Vandenberg AFB is characterized by an urbanized cantonment area (approximately 2,397 acres) on North Vandenberg AFB; a small semi-urbanized cantonment area on South Vandenberg AFB; launch, test, and tracking facilities on North and South Vandenberg AFB; and open land on the remainder of the base. Land use types on the base includes industrial (space launch facilities, hazardous waste collection facility, scrap recycling yard, landfill, airfield, and transportation facility), light industrial (offices, space launch support), residential (approximately 800 homes, dormitories), commercial (restaurants, shopping, etc.), recreational (sports centers, golf course, equestrian center, shooting range, off-road vehicle area, lakes), and agricultural (livestock grazing, leased agricultural fields). There are 1,661 acres of cropland, and 28,296 acres of land are leased for grazing.

(3) Climate. Vandenberg AFB is located in a dry subtropical climate zone that experiences semi-wet winters, dry summers, and mild temperatures throughout the year. Vandenberg AFB experiences coastal weather including ocean winds, fog and cloudiness, and marine inversions due to the proximity to the Pacific Ocean. The climate from November through April is generally wet and cool, while May through October is often dry and warm. The annual average temperature is 57 degrees Fahrenheit, ranging from a low of 21 degrees Fahrenheit to a high of 104 degrees Fahrenheit. Most precipitation falls during the winter and is generally produced by frontal systems transiting the area. Rainfall between May and October is rare. The average annual precipitation ranges from 13 to 16 inches. Prominent prevailing winds blow from the northwest.

(4) Population Demographics and Growth. Vandenberg AFB supports an approximate daytime population of approximately 12,500 (military, civilians, family members, contractors, and civilian employees), which fluctuates with regular business hours and mission requirements. The General Plan (U.S. Air Force 2008) describes both the potential for population growth as well as population decline, based on numerous factors. Potential population growth in the future would likely to be due to new Air Force missions or continuation of growth of existing programs. Potential population decline may also occur due to reduced funding, demolition of military housing units and the privatization of military housing that may lower the number of on-base residents, aging of the workforce, mission change, or a decrease in building due to anti-terrorism or environmental constraints.

(5) Hydrology. Vandenberg AFB contains or is adjacent to approximately 42 miles of coastline, 166 miles of perennial and ephemeral streams, 5,000 acres of wetlands, vernal pools, and 4 recreational lakes of either natural or anthropogenic origin. The base lies along the westernmost portion of three primary hydrologic units (HUs); listed from north to south, these are San Antonio Creek HU, Santa Ynez River HU, and South Coast HU. Vandenberg AFB comprises 36 percent of the San Antonio Creek HU, 5 percent of the Santa Ynez River HU, and 9 percent of the South Coast HU. The HUs discharge to the Pacific Ocean within Vandenberg AFB boundaries. Figure 2 in Appendix 2 provides an overview of the boundaries for each HU.

(6) **Surface Waters.** Surface waters located on Vandenberg AFB include Shuman Creek, San Antonio Creek, Santa Ynez River, Bear Creek, Cañada Honda Creek, and Jalama Creek. There are also numerous unnamed minor drainage basins which contain seasonal and ephemeral streams. The four man-made, recreational lakes are Punch Bowl Lake and Upper, Middle, and Lower Pine Canyon Lakes. Other small ponds/lakes that exist on base are MOD III Lake, ABRES-A Lake, Bear Creek Pond, and Spring Canyon Pond, Mitchell Pond, El Rancho Pond, and Lompoc-Casmalia Pond.

(7) **Water Quality Monitoring.** Selected surface water bodies on Vandenberg AFB are monitored monthly as part of the Vandenberg AFB Ambient Water Quality Program. Visual observations, *in situ* parameters, and grab samples are collected monitoring sites, flow permitting, to obtain baseline water quality data and to detect deviations from normal values. The program is in the data collection phase, and a thorough analysis of the monitoring results has not been performed to date. Future sampling, while dependent on the availability of funds, will be used in to assess the Air Force contribution of pollutants of concern to applicable receiving waters. Monitoring will also be utilized to support BMP, MCM, and program effectiveness assessments. Additional testing/monitoring programs are implemented throughout the base for the purpose of analyzing drinking water quality and determining industrial wastewater disposition.

(8) **Water Quality Challenges.** Vandenberg AFB is located at the westernmost portion of three HUs. Impaired water bodies within the jurisdictional limits of Vandenberg AFB are discussed below.

(a) The *2006 CWA Section 303(d) List of Water Quality Limited Segments Requiring TMDLs* (303[d] List) prepared in coordination between the SWRCB and the US EPA, identifies impaired water bodies that do not meet water quality standards defined within the regional *Water Quality Control Plan for the Central Coast Basin*, otherwise known as a Basin Plan (Central Coast Regional Water Quality Control Board 2004). Determinations are made based on results of state and regional monitoring efforts and after the minimum required levels of pollution control technology have been installed at point sources of pollution. The following water bodies on Vandenberg AFB are included on the 2006 list:

- 1 Shuman Creek, impaired for sediment/siltation;
- 2 San Antonio Creek from Rancho del las Flores Bridge at State Highway 135 to the Railroad Bridge downstream, impaired for boron, ammonia, and nitrite;
- 3 Santa Ynez River from the area downstream of Lompoc through the estuary at the Pacific Ocean, impaired for nitrate, salinity/dissolved solids/chlorides, and sedimentation/siltation; and
- 4 The Pacific Ocean off the coast of Jalama Beach, impaired for fecal and total coliform (bacterial indicators).

(b) The Air Force was notified by the SWRCB on 21 October 2004 of an alleged California Ocean Plan (SWRCB 2005) violation arising from the discharge of storm water from Pillar Point AFS into the James V. Fitzgerald Marine Reserve (San Mateo County), which the California Ocean Plan designates as an Area of Special Biological Significance (ASBS). The California Ocean Plan prohibits the discharge of a “waste,” including urban runoff, to an ASBS. The SWRCB notification required the Air Force to cease the discharge or file a temporary request of exception to the prohibition. 30 CES/CEAN filed a letter indicating the intent to file for an exception in order to comply with the SWRCB’s timeline. While awaiting guidance from the SWRCB regarding the exception application, 30 CES/CEAN funded a storm water outfall engineering feasibility study in August 2006 to determine the most appropriate and feasible method for ceasing the discharge of storm water runoff into the ASBS. 30 CES/CEAN is currently preparing the appropriate National Environmental Policy Act documentation for retrofit of the site using low impact development practices. The discharge of storm water to an ASBS is regulated by the California Ocean Plan and alleged violations must be addressed; therefore, Pillar Point AFS cannot be adequately incorporated into this plan until the requirements at the site are fully assessed and characterized.

(c) Table 1 lists Pollutants of Concern at Vandenberg AFB, cross-referenced with the applicable BMPs presented in this SWMP to mitigate for them.

d. Storm Water Management Plan Organization. This SWMP describes a 5-year program to reduce pollutants in storm water discharges to the maximum extent practicable.

(1) Minimum Control Measures. The Small MS4 General Permit specifies that a program must address the requirements of six minimum control measures (MCMs) through implementation of storm water BMPs. This plan is organized according to the six MCMs and describes the BMPs to be implemented to address potential pollutants, implementation schedule, and measurable goal(s) (e.g., milestones) for each BMP. The MCMs are:

- (a) Public Education (PE);
- (b) Public Participation (PP);
- (c) Illicit Discharge Detection and Elimination (ID);
- (d) Construction Site Storm Water Runoff Control (CS);
- (e) Post-Construction Storm Water Management (PC); and
- (f) Pollution Prevention/Good Housekeeping for Municipal Operations (GH).

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Table 1
Pollutants of Concern and BMP Cross Reference Table

Land Use	Generating Site	Potential Pollutant Activities/Source	POC Groups	BMP Cross-Reference
Residential	<ul style="list-style-type: none"> • Military Family Housing • Dorms • Temporary Lodging Facility/Quarters 	<ul style="list-style-type: none"> • Driveway and sidewalk cleaning • Dumping/spills • Landscape maintenance • Irrigation • Sewer system maintenance • Illicit connections • Painting • Household hazardous waste • Pet waste • Carpet cleaning • Pest control • Vehicle washing 	<ul style="list-style-type: none"> • Sediment • Nutrients (P, N, NO₃, NO₂) • Pathogens (indicator bacteria) • Hydrocarbons (oil and grease, vehicle/equipment fluids) • Pesticides • Gross pollutants (litter, trash, debris) • Toxics (e.g., organics, hazardous waste) • Surfactants 	<ul style="list-style-type: none"> • PE-1, PE-3, PE-4, PE-5, PE-7, • PP-2, PP-4 • ID-1, ID-2, ID-4, ID-6, ID-7, ID-8 • PC-2, PC-3, PC-6 • GH-1, GH-2, GH-3, GH-4, GH-5, GH-7, GH-8
Industrial & Commercial	<ul style="list-style-type: none"> • AAFES Gas station • Laundry facilities, dry cleaning • Restaurants, dining facilities • Automated car wash facilities • Distribution centers • Landfill • Airfield, SLCs, LFs • Consolidated CAP • Industrial Wastewater Treatment Plant • Hydrazine Storage Facility • Various 	<ul style="list-style-type: none"> • Process wastewaters • Loading and unloading area • Parking lot, road, runway, and building maintenance • Landscape maintenance • Material/waste storage and handling • Illicit connections • Sump dewatering • Rocket launches 	<ul style="list-style-type: none"> • Sediment • Nutrients (P, N, NO₃, NO₂) • Pathogens (indicator bacteria) • Hydrocarbons (oil and grease, vehicle/equipment fluids) • Pesticides • Metals • Gross pollutants (litter, trash, debris) • Toxics (e.g., organics, hazardous waste) 	<ul style="list-style-type: none"> • PE-1, PE-2, PE-5, PE-6, PE-7 • PP-1, PP-2, PP-3, PP-4 • ID-1, ID-2, ID-3, ID-4, ID-5, ID-6, ID-7, ID-8 • PC-3 • GH-1, GH-2, GH-3, GH-4, GH-5, GH-6, GH-7, GH-8, GH-9

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Table 1 (Continued)
Pollutants of Concern and BMP Cross Reference Table

Land Use	Generating Site	Potential Pollutant Activities/Source	POC Groups	BMP Cross-Reference
Municipal	<ul style="list-style-type: none"> Storage yards Streets, parking areas Fire department Police and security Sanitary sewer system Drinking water system Hospital Classrooms/AETC campus, library, child development center, youth center Utility vaults Car wash fundraisers 	<ul style="list-style-type: none"> Operations and maintenance Sanitary sewer overflows Process wastewaters Sump dewatering Material/waste storage and handling Landscape maintenance Street paving Painting/coating 	<ul style="list-style-type: none"> Sediment Surfactants Pathogens (indicator bacteria) Metals Oil and grease Vehicle/equipment fluids Hazardous materials Surfactants Toxics Concrete Concrete curing compounds Asphalt sealant Solvents 	<ul style="list-style-type: none"> PE-1, PE-2, PE-5, PE-6, PE-7 PP-1, PP-2, PP-3, PP-4 ID-1, ID-2, ID-3, ID-4, ID-5, ID-6, ID-7, ID-8 PC-3 GH-1, GH-2, GH-3, GH-4, GH-5, GH-6, GH-7, GH-8, GH-9
Recreational	<ul style="list-style-type: none"> Marshallia Ranch Golf Course Shooting range Paintball range Off-road vehicle area Vandenberg AFB Saddle Club Swimming pool Parks, outdoor eating areas 	<ul style="list-style-type: none"> Landscape maintenance Unpaved roads Outdoor horse stabling, manure waste Pool cleaning/maintenance 	<ul style="list-style-type: none"> Pesticides Metals Nutrients Sediment Chlorine, salts Trash Pathogens (indicator bacteria) 	<ul style="list-style-type: none"> PE-1, PE-2, PE-5, PE-7 PP-2, PP-3, PP-4 ID-1, ID-2, ID-3, ID-4, ID-7, ID-8 PC-5 GH-2, GH-3, GH-4, GH-5, GH-6, GH-7, GH-8
Agricultural	<ul style="list-style-type: none"> Irrigated agriculture Dry-farmed agriculture Grazing 	<ul style="list-style-type: none"> Pesticide and fertilizer loading, mixing, application Unpaved roads Agricultural tailwater Animal pens and stables Manure 	<ul style="list-style-type: none"> Pesticides Nutrients Sediment Pathogens (indicator bacteria) 	<ul style="list-style-type: none"> PE-1, PE-7 PP-2, PP-3, PP-4 ID-4, ID-7, ID-8 PC-5 GH-2, GH-6, GH-7

Table 1, Page 2 of 3

Table 1 (Continued)
Pollutants of Concern and BMP Cross Reference Table

Land Use	Generating Site	Potential Pollutant Activities/Source	POC Groups	BMP Cross-Reference
Other/all	<ul style="list-style-type: none"> • Construction sites • IRP/cleanup sites • Open space 	<ul style="list-style-type: none"> • Grading, structural work, demolition work, paving, coating • Equipment fueling, washing, maintenance and staging • Material waste storage and handling • Illicit connections • Contaminated groundwater 	<ul style="list-style-type: none"> • Sediment • Metals • Hazardous materials • Toxics • Concrete • Concrete curing compounds • Asphalt sealant • Solvents • Hydrocarbons 	<ul style="list-style-type: none"> • PE-1, PE-2, PE-5, PE-6, PE-7 • PP-1, PP-2, PP-3, PP-4 • ID-8 • CS-1, CS-2, CS-3, CS-4 • PC-1, PC-2, PC-3, PC-4, PC-5, PC-6 • GH-1, GH-2, GH-3, GH-4, GH-5, GH-6, GH-7, GH-8, GH-9

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(2) **Measurable Goals.** The BMPs for each MCM are associated with both indirect and direct measurable goals. Indirect measurable goals are based on the assumption that the use of specific BMPs is indirectly effective in the overall reduction of storm water pollution and the future protection of water quality (e.g., public education and participation). Direct measurable goals focus primarily on specific and direct impacts to receiving waters (e.g., street sweeping and illicit discharge elimination).

(3) **Responsible Parties.** BMP implementation will require the support and coordination of multiple organizations on Vandenberg AFB. A lead organization will be responsible for oversight of each BMP. Support organizations may be involved in implementation or coordination activities. The lead and support organizations (“tasked organizations”) will be listed in the *Measurable Goals* section of this SWMP for each BMP.

(4) **Implementation Year.** Each BMP is associated with an implementation year in which the BMP shall be initiated or continued. In some cases, BMP implementation is ongoing (e.g., performing inspections), and in some cases it consists of a one-time task that may only require maintenance or review and update in the future (e.g., development of a storm water logo).

(5) **Outcome Level.** Each BMP has an associated outcome level which will help to categorize and describe the desired results or goals of programs and control measures. The outcome levels are: Level 1 – documenting activities, Level 2 – raising awareness, Level 3 – changing behavior, Level 4 – reducing loads from sources, Level 5 – improving runoff quality, and Level 6 – protecting receiving water quality. Identifying these outcome levels for each BMP will support future program effectiveness assessments, further described in Section 3.e.(5).

e. **Storm Water Management Plan Implementation.** The General Permit requires the Air Force to develop and implement a SWMP for the Vandenberg AFB MS4 with the goal of reducing the discharge of pollutants to the maximum extent practicable through the selection and implementation of BMPs.

(1) **Maximum Extent Practicable.** The Maximum Extent Practicable (MEP) is the performance standard specified in Section 402(p) of the CWA. The MEP will be determined on a situational basis and in consideration of such factors as (1) conditions and uses of receiving waters, (2) specific local concerns, (3) the Air Force’s ability to implement BMPs (economic and technological feasibility), and (4) the scale and context of the base within the hydrologic units.

(2) **Timeline.** On 10 March 2003, the Air Force submitted a Notice of Intent (NOI), and the initial version of Vandenberg AFB SWMP to the CCRWQCB. The initial SWMP was revised and resubmitted along with a revised NOI on 30 April 2004 (See Appendix 1, Figure 1-2). This SWMP supercedes any prior versions and prescribes a 5-year schedule for implementation in accordance with the Small MS4 General Permit and based on program priorities and capabilities.

(3) Best Management Practices. Based on guidance from the State of California and U.S. EPA for achieving MEP through the selection and implementation of BMPs, stakeholder input, a review of other Phase I and Phase II Storm Water Management Plans, and a review of various technical manuals and BMP lists, the Air Force has identified a selection of BMPs and measurable goals to achieve a reduction in pollutant load to the MEP. The following were also considered in selection of BMPs (1) existing ambient water quality of local streams, including the “impairments” identified in Section 3.c.(8)(a), (2) BMP applicability to known pollutants, (3) local geographic and hydrologic factors, (4) land use, (5) planned effectiveness, and (6) technical and economic feasibility.

(4) Legal Authority and Enforcement Policy. This Plan is considered to be 30th Space Wing policy. Observed Small MS4 General Permit and/or SWMP violations may be reported to the 30th Civil Engineer Squadron Natural Resources Management Flight (30 CES/CEAN) via the Storm Water Hotline (see BMP ID-8). Violations may also be observed by 30 CES/CEAN or 30th Security Forces personnel (30 SFS/CC) and subsequently staff and coordinated appropriately.

(a) Contractor noncompliance will result in 30 CES/CEAN requesting the construction site manager to initiate prompt corrective action. If the contractor fails to correct the issue, the Contracting Officer will be notified. The Contracting Officer will ask the construction site manager to initiate prompt corrective action. If the contractor fails to correct the issue, the Contracting Officer may use a stop work order or a contract setoff action (a monetary penalty). If the contractor still fails to correct the noncompliance issue, the matter will be elevated to the 30 SW/CC. The 30 SW/CC has the authority to have the contractor escorted from the base and barred from entering Vandenberg AFB in the future. Under the Federal Acquisition Regulations, the Air Force can prohibit a contractor from bidding on a contract if a history of violation of environmental laws or regulations is discovered. Legal action may include a civil action or criminal prosecution. 30 CES/CEAN will respond to all public inquiries and notifications regarding construction site activities and compliance within 48 hours.

(b) Air Force civilian and military employees are subject to the civil and criminal enforcement provisions under federal law and regulations; however; there are also various personnel administrative tools for disciplinary action. For military members, the Uniform Code of Military Justice provides non-judicial and judicial enforcement options. For civilians, federal courts (Magistrate or District) are available if an action is criminal; but if the action is not criminal, there are various employee disciplinary measures available. If the civilian’s action was especially egregious the Base Commander could issue a barment order which would prohibit base access.

(c) Balfour Beatty Communities (BBC) is responsible for operations within residential Military Family Housing areas. BBC may issue notices for violations of obligations under the Lease or the Resident Guide. For more serious violations, a

termination of the lease may occur without previously issuing notices of violation. Based on the nature of the incident and any other documentation contained within the resident's file, the Community Manager will determine the appropriate action. Typically, an enforcement letter is issued and the resident is given 2 days to correct the issue. Failure to do so results in further action. The BBC enforcement actions are (in order of increasing severity): (1) Discrepancy Notice, issued for minor violations such as failing to maintain the backyard, place trash in proper areas, or parking violations; (2) Letter of Caution, issued for a resident's first major violation including Small MS4 General Permit violations; (3) Letter of Warning, issued for a resident's second violation of any nature; and (4) Letter of Termination of Residency, issued for a resident's third offense of any nature. Upon receipt of a Letter of Termination, the resident is given 30 days to vacate the home at resident's expense. Serious violations will be reported to the Base Commander and the resident's chain of command.

f. Monitoring Progress and Reporting. Program monitoring will be conducted via coordination and communication between all Air Force organizations involved with SWMP implementation. Each Air Force organization will be responsible for tracking BMPs for which they have been given responsibility. For military security reasons, names and/or contact information of individuals participating in courses, meetings, or events on Vandenberg AFB will not be provided as specified in DoD Operation Security (OpSec). However, numbers of attendees and basic demographic information may be retained and provided upon request. Results of BMP implementation and success measures will be documented by each responsible party and communicated to 30 CES/CEAN for evaluation and consideration. BMPs and their associated measurable goals may be adjusted if necessary. Any proposed changes to the SWMP will be presented to the CCRWQCB, along with justification for the change. No changes will be implemented without prior approval from the CCRWQCB and compliance with Small MS4 General Permit requirements.

g. Related and Supporting Documents. Several existing plans and programs at Vandenberg AFB support storm water pollution prevention and water quality protection. The following sections summarize these plans and programs and their relationships to this SWMP.

(1) *Wastewater Management Plan (WMP)*, 30 SW Plan 32-7041-A, U.S. Air Force 2009. The WMP establishes base policy and assigns responsibility for wastewater system oversight, operation, monitoring, and reporting to meet the requirements of the federal Water Pollution Control Act, Porter-Cologne Water Quality Control Act, and associated regulations, including applicable sections of the City of Lompoc Ordinance 1376(92). The WMP applies to domestic and non-domestic (e.g., municipal or industrial) wastewater treatment and pretreatment systems, including but not limited to collection systems, septic tanks, industrial wastewater treatment, and oil/water separators. The WMP provides specific guidance for disposition of accumulated waters including storm water (e.g., secondary containment, flame ducts, retention basins).

(2) *Storm Water Pollution Prevention Plan (SWPPP)*, 30 SW Plan 32-7041-B, U.S. Air Force 2009. The 30 SW SWPPP establishes base policy, assigns responsibility for storm

water pollution prevention, and lists BMPs to be implemented at six industrial facilities located on Vandenberg AFB. The SWPPP was developed and is implemented in accordance with *Water Quality Order No. 97-03-DWQ NPDES General Permit No. CAS000001, Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities* (Industrial Storm Water General Permit) adopted by the SWRCB on 19 November 1991 and amended on 17 April 1997. The six Vandenberg AFB facilities covered by the Industrial Storm Water General Permit are:

- (a) Sanitary Landfill;
- (b) Consolidated Collection Accumulation Point (CAP);
- (c) Airfield;
- (d) Defense Reutilization and Marketing Office (DRMO) and the Materials Diversion Center (MDC);
- (e) 30th Logistics Readiness Squadron (LRS) Vehicle Maintenance Facility; and
- (f) Space Launch Complex (SLC) 2. (Permit coverage for SLC 6 and SLC 8 has been obtained by the site contractors.)

(3) *Vandenberg Air Force Base 2008 General Plan, U.S. Air Force* (General Plan). The General Plan is the primary comprehensive planning document for the base. It is a summary document which allows the Installation Commander to logically and thoroughly analyze a variety of factors prior to making decisions that affect the future growth and development of the base and the surrounding community. It presents a concise picture of the composition and character of the base, including its facilities, environment, and infrastructure, and how these relate to the present and future capability of the base to support and accommodate its mission. The General Plan accounts for site constraints to, and opportunities for, development of the base so that the most suitable areas available for new uses or reuse can be identified. Constraints addressed within the General Plan include wetlands, floodplains, and the coastal zone.

(4) *Facilities Excellence Standards*. U.S. Air Force 2008. The *Facilities Excellence Standards* describe the minimum acceptable results for design and construction projects, demand consistency in quality and application, and mandate the use of best practices in facility design and construction, renovations of existing facilities, interior architecture and furnishings, site development, and protection of the environment. A Sustainability/Green Building section, which addresses base-wide sustainability goals and water quality and efficiency actions, is a component of this document.

(5) Draft *Integrated Natural Resources Management Plan*, U.S. Air Force 2008. The purpose of the *Integrated Natural Resources Management Plan* (INRMP) is to provide a 5-year planning direction and an adaptive management approach to ecosystem and

natural resources management in accordance with AFI 32-7064 and the Sikes Act Improvement Amendments of 1997 (16 U.S.C. 670 (a)(1)(A)).

(6) *Hazardous Materials Emergency Response Plan (HMERP)*, 30 SW Plan 32-4002-A, U.S. Air Force 2004. The HMERP, maintained by 30 CES/CEAN, is a procedural guide for the detection, response to, and management of releases of hazardous materials.

(7) *Spill Prevention, Control, and Countermeasures (SPCC) Plan*, 30 SW Plan 32-4002-C, U.S. Air Force 2004. The 30 SW SPCC Plan describes the policies and procedures that will be implemented at Vandenberg AFB to prevent the discharge of harmful quantities of oil-in any kind or form-into the navigable waters of the United States in accordance with the provisions of 40 CFR, Part 112, *Oil Pollution Prevention*.

(8) Construction Site Storm Water Management. Construction sites disturbing greater than 1 acre of land at Vandenberg AFB are covered by *NPDES General Permit No. CAS000002 WDRs for Discharges of Storm Water Associated with Construction Activities* (Construction Storm Water General Permit). Construction contractors are responsible for developing site-specific construction SWPPPs, filing the Notice of Intent (NOI) for permit coverage, implementing on-site BMPs, maintaining BMPs, attending training sessions, performing inspections, and submitting an annual report. The Air Force, as the landowner, signs the NOI, provides oversight of construction contractors to track permit coverage and compliance, and signs the Notice of Termination. 30 CES/CEAN verifies site stabilization before a Notice of Termination (NOT) is signed.

h. Minimum Control Measures. The following sections address each of the six minimum control measures (MCMs). These include Public Education, Public Participation, Illicit Discharge Detection and Elimination, Construction Site Storm Water Runoff Control, Post-Construction Storm Water Management, and Pollution Prevention/Good Housekeeping for Municipal Operations. For each MCM a description of the storm water BMPs, including associated implementation schedule and measurable goals, are presented. This information is further summarized for each MCM into a BMP table at the end of each section. In accordance with the Small MS4 General Permit, the Air Force is required to implement BMPs that will collectively reduce or eliminate pollutants in storm water to the MEP. To achieve this, BMPs in this SWMP were selected based on technical feasibility, cost, effectiveness, and public acceptance.

(1) Public Education (PE). The goal of this MCM is to encourage greater public awareness of and compliance with the Vandenberg AFB storm water management program. This MCM provides information and learning opportunities for the public regarding the importance of protecting storm water quality for the benefit of the environment and human health.

(a) Vandenberg AFB Public. Provision D.2.a. of the Small MS4 General Permit states, "For non-traditional Permittees, the employee/user population may serve as the 'public' to target for outreach and involvement." The Vandenberg AFB public consists of military personnel, civilian employees, long-term contractors (e.g., space

program operations, security-related), short-term contractors (e.g., service, construction-related), and residents (dorms, BBC housing).

(b) **Public Education Small MS4 Permit Requirements.** The Small MS4 General Permit requires the Air Force to implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff.

(c) **Public Education BMPs.** The Public Education BMPs and the related measurable goals which follow are also summarized in Table 2.

1 PE-1, Media Campaign.

a 30th Space Wing Public Affairs (30 SW/PA) represents media operations at Vandenberg AFB. A variety of news sources exist to reach the public. These media sources will be utilized to disseminate information to the public about the Vandenberg AFB Storm Water Program, educate the public regarding common urban runoff issues (i.e., proper handling of trash and hazardous materials, pet waste management, proper fertilizer and chemical use, riparian vegetation protection), and to provide methods for preventing storm water pollution.

b **Intranet Link: 30 CES/CEAN Portal Site.** The 30 CES/CEAN Portal Site includes a water quality protocol section containing information on municipal, construction, and industrial storm water, as well as details regarding the discharge to grade program and domestic and industrial wastewater programs. An internal, base link (not accessible to public without network authorization and credentials) to relevant training, including construction storm water training and industrial storm water training is provided. 30 CES/CEAN will annually update the Water Quality Protocol of the 30 CES/CEAN Portal Site to account for changes to the Air Force operations, permits, regulations, and protocols. A copy of the Storm Water Management Plan and related storm water pollution prevention materials will also be posted on the site.

c **Internet Link: Vandenberg AFB Public Website.** 30 SW/PA maintains an up-to-date public website with Vandenberg AFB current news and events, photos, and contact information (Vandenberg AFB public website address: <http://www.vandenberg.af.mil/>). 30 CES/CEAN will develop and upload to the Vandenberg AFB public website relevant storm water program and pollution prevention content.

d **Television Ad: Channel 2, Team Vandenberg Network.** All base cable subscribers, including billeting facilities and some offices, receive the Team Vandenberg Network, Channel 2. The station is operated by 30 SW/PA and provides news programming, an electronic bulletin board, and

free classified ads for base personnel. It is estimated Channel 2 is available to 50% of the general public. 30 CES/CEAN will develop storm water program and pollution prevention content and provide to 30 SW/PA for the Channel 2 bulletin board.

e Newspaper Article: *Space Country Times*. The weekly base newspaper presents news, information, and activities. The newspaper is distributed to base work areas and base housing 50 weeks per year. It is estimated the newspaper will reach approximately 90% of the general public. Annually develop and publish one storm water article for publication in the *Space Country Times* through coordination with 30 SCS/SCBR/NG and 30 SW/PA.

f Base Newsletter Articles: *Vandenberg Base Bulletin*. The *Vandenberg Base Bulletin* is a weekly 30th Space Communications Squadron, Information Management (30 SCS/SCBP/NG) newsletter. The publication's audience is military, resident contractor, and tenant employees and the focus is variable. It is estimated 70% of the target audience will receive the bulletin. The *EnviroVision* publication is a quarterly newsletter that targets facility managers and environmental coordinators. It is estimated 70% of the facility managers and environmental coordinators will receive the *EnviroVision*. 30 CES/CEAN will annually develop and publish one storm water article for publication in the each of the newsletters through coordination with 30 SCS/SCBR/NG and 30 SW/PA.

g Consumer Confidence Report Quick Tips. The Air Force develops an annual drinking water Consumer Confidence Report, which provides information about drinking water quality of potable water supplied on Vandenberg AFB. The report is directly mailed to every resident and resident contractor on base and is made available to the public through a variety of distribution locations. Pollution prevention quick tips are included for the recipient of the Consumer Confidence Report. Storm water pollution prevention quick tips will be included in future editions of the annual report. It is estimated the CCR will be reach 100% of base residents and contractors on base, and 70% of the remaining public.

h Balfour Beatty Communities Housing Newsletter Article: *Twilight Times*. BBC publishes a monthly newsletter, the *Twilight Times*, in which information is disseminated to residences. 30 CES/CEAN will provide BBC one article annually for incorporation into the monthly newsletter. It is estimated 95% of all BBC residents will receive the newsletter.

i All outreach efforts will reference applicable website and storm water hotline information. 30 CES/CEAN will assess community-based social

marketing strategies and incorporate them into the Media Campaign where appropriate.

j Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Years 1–5: Annually update the Water Quality Protocol of the 30 CES/CEAN Portal Site (intranet) to account for changes to the Air Force operations, permits, regulations, and protocols. Post a copy of the Storm Water Management Plan and related storm water pollution prevention materials on the site.

[2] 30 CES/CEAN and 30 SW/PA, Year 2: Develop storm water program and pollution prevention content for the Vandenberg AFB public website (Internet). Upload information directly to the website or provide a link to the storm water information.

[3] 30 CES/CEAN, Year 3: Develop storm water program and pollution prevention content and provide to 30 SW/PA for the Channel 2 bulletin board. Air the content and update annually.

[4] 30 CES/CEAN, Years 1–5: Annually develop and publish one storm water article for publication in each of the quarterly newsletters, *Vandenberg Base Bulletin* and *EnviroVision*, and the community news publication, *Space Country Times*, through coordination with 30 SCS/SCBR/NG and 30 SW/PA.

[5] 30 CES/CEAN, Years 1–5: Develop “P2 Quick Tips” annually for inclusion in the drinking water Consumer Confidence Report. Distribute the Consumer Confidence Report to all residences and dormitories, and provide copies at the office of 30 CES/CEAN.

[6] 30 CES/CEAN, Years 1–5: Develop one storm water article annually for submission to BBC for publication in the monthly newsletter, *Twilight Times*.

2 PE,-2 New Employee (Newcomer) Brief.

a All new employees at Vandenberg AFB are required to attend the “Newcomer’s Brief” in which base policies and regulations are presented by speakers chosen by the Commander’s Action Group (30 MSG/CCX). A video is also shown related to the operations, activities, requirements, and prohibitions at Vandenberg AFB. The 30 MSG/CCX coordinates updates to the presentation materials. The Newcomer’s Brief is scheduled every Tuesday in the 30th Medical Group Auditorium by Personnel Customer Service (30 FSS/FSMPS).

b 30 CES/CEAN will coordinate with 30 MSG/CCX to add a briefing segment or incorporate storm water information into the training video regarding policy (this SWMP), pollution prevention, and illicit discharge detection and elimination. 30 CES/CEAN will also incorporate discussion of common urban runoff issues and associated preventative measures into the training video. The applicable website and storm water hotline information will be referenced within the video.

c Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Year 2: Develop and incorporate a storm water pollution prevention segment into the Newcomer's Brief video.

[2] 30 CES and 30 FSS/FSMPS Years 2–5: Present the briefing to 100 percent of new employees and retain sign-in sheets.

[3] 30 CES/CEAN and 30 FSS/FSMPS, Years 3–5: Review content for updates annually and amend presentation accordingly.

3 PE-3, Residential Storm Water Education.

a Residential areas of the base consist of BBC housing, dormitories, and temporary lodging facilities, located in the main cantonment area. The dormitories and temporary lodging facilities are operated and maintained by the Capital Asset Management (30 CES/CEAC). Policy has been developed for the residential community that greatly reduces the potential for storm water pollution. An outside contractor performs landscape maintenance of areas around the dormitories, the majority of front yards of BBC housing units, and common areas. Irrigation runoff is minimal due to the implementation of the Vandenberg AFB watering policy (in BBC housing, odd numbered houses are watered on odd days, even numbered houses on even days, and a maximum of 45-minute intervals is encouraged).

b BBC Housing. BBC provides tenants with a "Newcomer Kit" containing the *Resident Guide*, which outlines various rules, regulations, and information about the base, including the base recycling program and contact phone numbers.

[1] The BBC *Resident Guide* states that only two pets per household are permitted within the unit and, "Residents are responsible for removing their pets' solid wastes throughout all areas." Vehicle maintenance is not permitted in residential areas. Vehicle washing is permitted within BBC housing, although the *Resident Guides* states, "It is recommended washing of vehicles be accomplished at the AAFES Auto Care Center Car Wash on base and not within the community because the water containing soap and detergent, residues from exhaust

fumes, brake pads, gasoline and motor oil washes off the vehicles, flows off the pavement and into nearby storm drains, which can have an adverse environmental impact.”

[2] In addition, BBC maintains a website (<http://vandenbergfamilyhousing.com>) and provides residents with a monthly newsletter, *Twilight Times*. Monthly residential newcomer orientations are also provided and serve as a forum for distributing information regarding programs at Vandenberg AFB. New residents at Vandenberg AFB are required to participate in the orientations.

c Educational brochures have been developed by 30 CES/CEAN that target residential sources of storm water pollution, such as vehicle washing and landscaping runoff. Brochures have been provided for BBC and Capital Asset Management (30 CES/CEAC) for distribution. 30 CES/CEAN will review brochure content annually and ensure common urban runoff issues (i.e., proper handling of trash and hazardous materials, pet waste management, proper fertilizer and chemical use, and protection of riparian vegetation) are appropriately addressed. BBC will continue to incorporate the brochure into the Newcomer Kits and 30 CES/CEAC will continue to distribute the brochures throughout the dormitories and temporary lodging facilities.

d All 30 CES/CEAN outreach materials will reference applicable website and storm water hotline information. 30 CES/CEAN will assess community-based social marketing strategies and incorporate them into the Media Campaign where appropriate.

e Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Year 1: Coordinate with BBC and 30 CES/CEAC for distribution of the residential-specific storm water pollution prevention brochure.

[2] 30 CES/CEAN, Years 2–5: Review brochure content annually for potential enhancements and/or updates related to storm water issues. Coordinate with BBC and 30 CES/CEAC to resupply brochures when necessary.

4 PE-4, Children’s Educational Materials.

a Children of military personnel attend Crestview Elementary School (grades kindergarten through 5) and Vandenberg Middle School (grades 6 through 8). Crestview Elementary School has an enrollment of approximately 600 students. The curriculum incorporates the water cycle during grades three and five. Vandenberg Middle School has an

enrollment of approximately 600 to 800 students. Erosion and sedimentation principles are presented in the seventh grade.

b A program will be developed to provide student storm water pollution prevention education and encourage participation. The program will be supplemented by age-appropriate materials such as crossword puzzles, games, and stickers promoting storm water pollution prevention and fostering an understanding of the importance of water quality. If available, educational materials that increase awareness of common urban runoff issues (i.e., proper handling of trash and hazardous materials, pet waste management, proper fertilizer and chemical use, riparian vegetation protection) will be acquired for distribution. The materials will be provided to Crestview Elementary School and Vandenberg Middle School for distribution during appropriate times in the curriculum. Children's storm water pollution prevention materials will also be provided to the Vandenberg AFB Library. All outreach efforts will reference applicable website and storm water hotline information.

c Measurable Goals.

[1] 30 CES/CEAN, Year 1: Coordinate with Crestview Elementary School and Vandenberg Middle School staff to determine age-appropriate storm water education materials.

[2] 30 CES/CEAN, Year 2: Obtain children's educational materials promoting water quality and will increase awareness of common urban runoff issues.

[3] 30 CES/CEAN, Years 2–5: Submit storm water educational materials for distribution at the schools and Library.

5 PE-5, Storm Drain Labels.

a To increase public awareness of storm water conveyance systems, labels will be affixed to storm drains throughout the cantonment areas on North and South Vandenberg AFB, including BBC Housing, the National Aeronautics and Space Administration (NASA) buildings, the Vandenberg Tracking Station, and the airfield. A program will be developed to inspect and replace missing or damaged labels.

b Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Years 2 and 4: Conduct "windshield surveys" of storm drains and identify labels needing replacement.

[2] 30 CES/CEAN, Years 2 and 4: Replace damaged/missing labels.

6 PE-6, Audience-Specific Storm Water Guides.

a To reduce the contribution of pollutants discharged to the MS4 by known sources, 30 CES/CEAN will prepare detailed storm water pollution prevention guides for the following target audiences: industrial, automotive, construction, landscape maintenance, and commercial/restaurant. The guides will include information about federal, state, and local storm water requirements, site-specific pollution prevention techniques, and references to additional educational materials. Common urban runoff issues such as the proper handling of trash (with special attention to plastic debris) and hazardous materials, pet waste management, proper fertilizer and chemical use, and protection of riparian vegetation will be thoroughly addressed within the applicable guides. All audience-specific storm water guides will reference applicable website and storm water hotline information. 30 CES/CEAN will assess community-based social marketing strategies and incorporate them into the Media Campaign where appropriate.

b Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Year 1-5: Develop one audience-specific guide per year to address either industrial, automotive, construction, or commercial/restaurant activities on a rotating schedule.

[2] 30 CES/CEAN, Years 2–5: Distribute the storm water guides during applicable inspection programs (see BMPs ID-1, CS-3, and GH-9). Track the quantity of guides distributed.

[3] 30 CES/CEAN, Years 3–5: Review guide content annually for potential updates.

7 PE-7, Water Resources Logo.

a A water resources logo will be developed to provide simple and definite recognition of the Vandenberg AFB water quality program. The logo will be submitted for approval by the 30 SW and will then be incorporated on all media outreach materials.

b Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Year 1: Develop a water resources logo and obtain 30 SW approval.

[2] 30 CES/CEAN, Years 1–5: Incorporate the logo on all storm water educational materials.

Table 2
Public Education BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
PE-1	Media Campaign	Utilize existing media sources to promote storm water education and pollution prevention, such as intranet for base employees, public website, television broadcast bulletin on Channel 2 (Vandenberg Team Network), and publications: <i>Space Country Times</i> , <i>EnviroVision</i> , <i>Vandenberg Base Bulletin</i> , <i>Consumer Confidence Report</i> (P2 Quick Tips), <i>Twilight Times</i> .	1. Annually update the Water Quality Protocol of the 30 CES/CEAN Portal Site (intranet) and post a copy of this SWMP and related storm water pollution prevention materials on the site.	30 CES/CEAN	x	x	x	x	x	1, 2, 3
			2. Develop and upload storm water program and pollution prevention content for the Vandenberg AFB public website.	30 CES/CEAN and 30 SW/PA		x				
			3. Develop storm water program and pollution prevention content and provide to 30 SW/PA for the Channel 2 bulletin board. Air the content and update annually.	30 CES/CEAN			x			

Table 2, Page 1 of 4.

**Table 2 (Continued)
Public Education BMPs**

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
PE-2	New Employee (Newcomer) Brief	Incorporate storm water pollution prevention education, Vandenberg AFB pollution prevention policy, and the storm water program into the Newcomer Brief training video.	1. Develop and incorporate a storm water pollution prevention segment into the Newcomer Brief video.	30 CES/CEAN		x				1, 2, 3
			2. Present the briefing to 100 percent of new employees and retain sign-in sheets.	30 FSS/FSMPS		x	x	x	x	
			3. Review content for updates annually and amend accordingly.	30 CES/CEAN			x	x	x	
PE-3	Residential Storm Water Education	Develop educational materials that target residential sources of storm water pollution, such as vehicle washing and landscaping runoff. Brochures will be provided for BBC and 30 CES/CEAC for distribution. BBC will incorporate the brochure into the "Newcomer Kits."	1. Coordinate with BBC and the 30 CES/CEAC to annually distribute a residential-specific storm water pollution prevention brochure.	30 CES/CEAN	x					2, 3
			2. Review brochure content annually for potential enhancements and/or updates; resupply brochures when necessary.	30 CES/CEAN		x	x	x	x	

Table 2, Page 2 of 4.

**Table 2 (Continued)
Public Education BMPs**

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
PE-4	Children's Educational Materials	Develop a program to provide student storm water pollution prevention education and encourage participation. Supplement the program with age-appropriate materials that promote storm water pollution prevention and foster an understanding of the importance of water quality. Provide the materials to Crestview Elementary School and Vandenberg Middle School for distribution during appropriate times in the curriculum.	1. Coordinate with Crestview Elementary School and Vandenberg Middle School staff to determine age-appropriate storm water educational materials.	30 CES/CEAN	x					1, 2, 3
			2. Obtain children's educational materials promoting water quality.	30 CES/CEAN		x				
			3. Submit storm water educational materials for distribution at the schools and the library.	30 CES/CEAN		x	x	x	x	
PE-5	Storm Drain Labels	Develop a program to inspect and replace missing or damaged labels that have been affixed to storm drains throughout the cantonment areas on North and South Vandenberg AFB.	1. Conduct "windshield surveys" of storm drains and identify labels needing replacement.	30 CES/CEAN		x		x		2, 3
			2. Replace damaged or missing labels.	30 CES/CEAN		x		x		

Table 2, Page 3 of 4.

**Table 2 (Continued)
Public Education BMPs**

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
PE-6	Audience-Specific Storm Water Guides	Prepare one detailed storm water pollution prevention guide per year for the following target audiences, on a rotating schedule: industrial, automotive, construction, and commercial/ restaurant.	1. Develop one audience-specific guide to address industrial, automotive, construction and commercial/restaurant activities.	30 CES/CEAN	x	x	x	x	x	1, 2, 3
			2. Distribute the storm water guides during applicable inspection programs and track the quantity of guides distributed.	30 CES/CEAN		x	x	x	x	
			3. Review guide content annually for potential updates.	30 CES/CEAN			x	x	x	
PE-7	Water Resources Logo	Develop a water resources logo to provide simple and definite recognition of the Vandenberg AFB water quality program. Submit the logo for approval by the 30th Space Wing; incorporate the logo on all media outreach materials.	1. Develop a water resources logo and obtain 30 SW approval.	30 CES/CEAN	x					2, 3
			2. Incorporate the logo on all storm water educational materials.	30 CES/CEAN	x	x	x	x	x	

Table 2, Page 4 of 4.

(2) Public Participation (PP). The goal of this MCM is to promote public participation in the Vandenberg AFB Storm Water Program through outreach events, illicit discharge reporting and effectiveness evaluation and to ensure Vandenberg AFB's participation in the community of watershed stakeholders.

(a) Since access to Vandenberg AFB is restricted, the definition of "public" is clearly different than for other municipalities. At Vandenberg AFB, the public primarily consists of known military personnel, civilian employees, long-term contractors (e.g., space program operations, security-related), short-term contractors (e.g., service, construction-related), and residents (active duty military families).

(b) The Small MS4 General Permit requires the Air Force to comply with all state and local requirements when implementing the public involvement/participation program.

(c) Public Participation BMPs. The Public Participation BMPs and the related measurable goals which follow are also summarized in Table 3.

1 PP-1, Environmental Awareness Working Group.

a A National Reconnaissance Office (NRO)-sponsored, unchartered, and *ad hoc* Environmental Awareness Working Group (EAWG) meets bimonthly. The EAWG meetings are intended for contractors to share pertinent information regarding regulations and the status of environmental programs at Vandenberg AFB. 30 CES/CEAN also utilizes the EAWG to disseminate new or revised environmental requirements to contractors.

b 30 CES/CEAN will present the Vandenberg AFB storm water program and pollution prevention information to the EAWG once annually. During this presentation, 30 CES/CEAN will provide background information related to storm water pollution prevention activities, facilitate discussion regarding pollutant sources, and will request and document feedback related to past, present, and future BMP implementation efforts at Vandenberg AFB.

c Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Year 2: Develop a storm water presentation and applicable handouts for an environmental professional target audience.

[2] 30 CES/CEAN, Years 2–5: Present storm water program information once per year at the EAWG. Document participation and solicit comments. Utilize the public input provided from EAWG meetings to improve plan and program effectiveness.

2 PP-2, Storm Water Subcommittee.

a 30 CES/CEAN facilitates and participates in a bimonthly Water Working Group (WWG) that serves as a forum for discussing issues and operations as they relate to drinking water and wastewater. Primary organizations attending the WWG include, but are not limited to, the Mechanical/Utilities Infrastructure Support, Utility Systems (30 CES/CEOFP), and 30th Medical Operations Squadron, Bioenvironmental Engineering (30 MDOS/SGOAB).

b 30 CES/CEAN will create a Storm Water Subcommittee to the Water Working Group. The Subcommittee will meet every other month to focus communication efforts on the storm water program and share information regarding BMP implementation scheduling, progress, and efficacy. Applicable organizations will be invited to the meeting to coordinate BMP implementation. This subcommittee will also be utilized as a forum for staff associated with hazardous waste and recycling programs to coordinate and assist with illicit discharge elimination. An agenda and sign-in sheet will be created prior to each meeting. 30 CES/CEAN will compile meeting notes to organize BMP tasks and for later evaluation of program effectiveness.

c Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Year 1: Create a Storm Water Subcommittee to the Water Working Group, define applicable organizations, develop protocol with regards to how the committee will operate and its specific intent, and hold quarterly meetings.

[2] 30 CES/CEAN, Years 2–5: Conduct Storm Water Subcommittee meetings every other month. Retain agenda, meeting notes, and sign-in sheets.

[3] 30 CES/CEAN, Years 3–5: Assess the effectiveness of the committee and adjust protocols if necessary to achieve maximum organization and efficiency.

3 PP-3, Participation in the Santa Barbara County Association of MS4 Managers Meetings.

a 30 CES/CEAN will continue to represent Vandenberg AFB and participate in quarterly Santa Barbara County Association of MS4 Managers (SBCAMM) Meetings. The meetings, which are hosted by the County of Santa Barbara, are intended to allow for regional coordination of SWMP implementation efforts, provide an opportunity to share resources, and foster discussion of each agency's status with regards to compliance.

b Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Years 1–5: Attend and participate in 100 percent of regular SBCAMM meetings annually.

[2] 30 CES/CEAN, Years 1–5: Obtain and retain a copy of each meeting's agenda and meeting notes.

4 PP-4, Earth Day.

a The Air Force hosts special events at Vandenberg AFB. The annual Earth Day event provides an excellent opportunity to present Vandenberg AFB storm water pollution prevention information and reach a varied audience.

b In the past, the event has been attended by base employees, residents, children and military personnel. Organizations are invited to present and/or table a booth. 30 CES/CEAN, the CCRWQCB, and the County of Santa Barbara have all staffed booths in the past and provided storm water educational materials, answered storm water program and pollution prevention questions for members of the Vandenberg AFB public, and provided giveaways for children.

c 30 CES/CEAN will participate in an Earth Day event annually to promote public education and participation as it relates to storm water pollution prevention and illicit discharge detection.

d Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Years 1–5: Participate in an Earth Day event annually. Distribute educational materials and document the number of attendees at the event.

[2] 30 CES/CEAN, Year 2: Develop a storm water display board for use at local events which includes a quiz for the public to help 30 CES/CEAN to determine how effective the educational BMPs and display board have been at imparting information about water quality and/or pollution.

[3] 30 CES/CEAN, Years 2–5: Document overall trends within results of quizzes within one week of the event. Develop next year's public outreach documentation to address any areas of public misunderstanding.

5 PP-5, Storm Water Management Plan Public Review and Comment.

a 30 CES/CEAN will solicit public (i.e. reference Section h(1)(a) for applicable definition) comment to future SWMP revisions and proposed policies. Public comment solicitation will be executed using a combination of media outlets (intranet, Library, *Base Bulletin*, *Twilight Times*, etc.) referenced in PE-1. The Air Force will provide sufficient time for the public to comment. Applicable comments will be incorporated into draft SWMP revisions and policies.

b Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Years 1–5: Allow 30 days for public comment to all future draft SWMP revisions and policies. Utilize a minimum of 3 media outlets for the purpose of notifying the public of their opportunity to comment.

**Table 3
Public Participation BMPs**

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
PP-1	Environmental Awareness Working Group (EAWG)	Present the Vandenberg AFB storm water program and pollution prevention information to the EAWG once annually.	1. Develop a storm water presentation and applicable handouts for an environmental professional target audience.	30 CES/CEAN		x				1, 2, 3
			2. Present storm water program information annually at the EAWG, document participation, solicit comments, and utilize the comments to improve plan and program effectiveness.	30 CES/CEAN		x	x	x	x	
PP-2	Storm Water Subcommittee	Create a Storm Water Subcommittee (Subcommittee) to the Water Working Group.	1. Create a Storm Water Subcommittee to the Water Working Group and hold quarterly meetings.	30 CES/CEAN	x					1, 2, 3, 4
			2. Conduct Storm Water Subcommittee meetings every other month. Retain agenda, meeting notes, and sign-in sheets.	30 CES/CEAN		x	x	x	x	

Table 3, Page 1 of 3.

**Table 3 (Continued)
Public Participation BMPs**

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
PP-2 (cont)	Storm Water Subcommittee		3. Assess the effectiveness of the committee, and adjust protocols if necessary to achieve maximum organization and efficiency.	30 CES/CEAN			x	x	x	
PP-3	Participation in the Santa Barbara County Association of MS4 Managers Meetings.	Vandenberg AFB will be represented at quarterly Santa Barbara County Association of MS4 Managers (SBCAMM) meetings hosted by the County of Santa Barbara.	1. Attend and participate in 100 percent of regular SBCAMM meetings annually.	30 CES/CEAN	x	x	x	x	x	1
			2. Obtain and retain a copy of each meeting's agenda and meeting notes.	30 CES/CEAN	x	x	x	x	x	
PP-4	Earth Day	Utilize an annual Earth Day event to promote public education and participation as it relates to storm water pollution prevention and illicit discharge detection.	1. Participate in an Earth Day event annually. Distribute educational materials and document the number of attendees at the event.	30 CES/CEAN	x	x	x	x	x	1, 2, 3

Table 3, Page 2 of 3.

**Table 3 (Continued)
Public Participation BMPs**

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
PP-4 (cont)	Earth Day		1. Develop a storm water display board for use at local events which includes a quiz for the public to help 30 CES/CEAN to determine how effective the educational BMPs and display board have been at imparting information about water quality and/or pollution.	30 CES/CEAN		x			x	1, 2, 3
			2. Document overall trends within results of quizzes within one week of the event. Develop next year's public outreach documentation to address any areas of public misunderstanding.	30 CES/CEAN		x	x	x		
PP-5	Storm Water Management Plan Public Review and Comment	Provide an adequate opportunity for the public to comment on all future draft SWMP revisions and policies.	1. Allow 30 days for public comment. Utilize a minimum of 3 media outlets for the purpose of notifying the public.	30 CES/CEAN	x	x	x	x	x	2, 3

Table 3, Page 3 of 3.

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(3) **Illicit Discharge Detection and Elimination.** The goal of the Illicit Discharge Detection and Elimination (ID) MCM is to achieve a thorough awareness of the Vandenberg AFB storm water conveyance system, so Air Force personnel may determine the types and sources of illicit discharges and establish the legal, technical, and educational means needed to eliminate the discharges. Typical sources of illicit discharges include sanitary wastewater, car wash wastewaters, improper used vehicle fluid disposal, the improper use and/or disposal of chemicals, roadway spills, outdoor surface wash down, construction site wash water, and laundry wastewaters.

(a) The General Permit requires the Air Force to:

- 1 Develop, implement, and enforce a program to detect and eliminate illicit discharges (as defined by 40 CFR Section 122.26[b][2], CFR 2007a) into the regulated Small MS4.
- 2 Develop a storm sewer system map showing the location of all outfalls and the names and locations of all Waters of the United States that receive discharges from those outfalls.
- 3 To the extent allowable under state or local law, effectively prohibit through ordinance or other regulatory mechanism non-storm water discharges into the MS4 and implement appropriate enforcement procedures and actions.
- 4 Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to the system that are not authorized by a separate NPDES Permit.
- 5 Inform public employees, businesses, and the general public of environmental impacts associated with illegal discharges and improper disposal of waste.
- 6 Address the following categories of non-storm water discharges or flows (e.g., authorized non-storm water discharges) only where they are identified as significant contributors of pollutants to the Small MS4:
 - a Water line flushing;
 - b Landscape irrigation;
 - c Diverted stream flow;
 - d Rising ground waters;
 - e Uncontaminated groundwater infiltration (as defined in 40 CFR §35.2005[20], CFR 2007b) to separate storm sewer systems;
 - f Uncontaminated pumped groundwater;

- g Potable water discharges;
- h Foundation drains;
- i Air conditioning condensation;
- j Irrigation water;
- k Springs;
- l Water from crawl space pumps;
- m Footing drains;
- n Lawn watering;
- o Individual residential car washing;
- p Flows from riparian habitats and wetlands; and
- q De-chlorinated swimming pool discharges.

7 Discharges or flows from firefighting activities are excluded from the effective prohibition against non-storm water, and need only be addressed when they are identified as significant sources of pollutants to Waters of the United States.

(b) Although 30 CES/CEAN determined that certain discharges identified in the above list may present a potential threat to water quality, these discharges are addressed under the Wastewater Management Program, the Discharge to Grade Program and the Dewatering Systems Inventory. Therefore, these discharges are not deemed to be significant contributors of pollutants to the Small MS4 at this time. The Vandenberg AFB Wastewater Management Plan addresses non-storm water discharges and establishes guidelines, policy, and responsibilities associated with reducing or eliminating pollution potential.

(c) Illicit Discharge Detection and Elimination BMPs. The ID BMPs and the related measurable goals which follow are also summarized in Table 4.

1 ID-1, Facility Inspections and Discharge Investigations.

a Programs are currently in place at Vandenberg AFB to detect and eliminate certain types of illicit discharges at the base, such as from wastewater processes, accumulated waters within utility vaults and other underground structures, and associated with discharges to grade. These same programs, discussed further in the following sections, are also a tool used by 30 CES/CEAN to evaluate the non-storm water discharges identified as exempt under the Small MS4 General Permit. They will

continue to be implemented; however, from this point forward special attention be given identifying and eliminating the discharge of primary pollutants of concern (nutrients, metals, salinity, sediment, pathogens, and trash) to the MS4.

b Wastewater Discharge Survey and Inventory. 30 CES/CEAN performs an annual survey via telephone, email, and site visits to collect information regarding domestic wastewater discharge and facility operations for every Vandenberg AFB facility, including the GSUs. After the survey is performed, the data are inventoried in a database that contains all facilities' point of contact information, activities, number of personnel in the facility, wastewater discharges, and discharge dispositions. The compliance status of each type of discharge from each facility is assessed based upon the generating mechanism and the discharge point (e.g., Lompoc Publicly Owned Treatment Works [POTW] discharges, discharges to grade, and discharges to Waters of the United States). The inventory enables 30 CES/CEAN to investigate discharges listed as "authorized non-storm water discharges" within the Small MS4 General Permit (Provision D.2.c.6) and possible identification of a discharge as a significant contributor of pollutants to the Small MS4.

[1] 30 CES/CEAN will assess illicit discharge potential based on current water quality data and known challenges, historical and current discharge concerns, results of the previous surveys and inspections, and analysis of the MS4 Drainage Map. Based on this information, 30 CES/CEAN will the enhance wastewater surveys to include annual site visits to high priority industrial facilities, food service establishments, and the Army and Air Force Exchange Service (AAFES) Gas Station/Auto Care Center and Car Wash. The goal of the inspections will be to identify, investigate, and abate illicit storm water discharges and connections.

[2] Non-storm water discharges exempt under the Small MS4 General Permit will also be evaluated to determine their potential as a significant source of pollutants to the MS4. Non-storm water discharge(s) identified as having the potential to be a significant source of pollutants to the MS4 will be prohibited.

[3] During inspections, 30 CES/CEAN will provide the facility representative with an audience-specific storm water guide (see BMP PE-6) and will suggest BMPs to be implemented to reduce or eliminate storm water pollution discharges from the facility. The inspector will encourage the facility representative to perform regular site inspections, if they are not already performed, as well as retention of any inspection documentation.

c Discharge to Grade (DTG) Program. A “discharge to grade” is defined as accumulated water released to land including potable water, process wastewater, groundwater, storm water, condensates, and accumulated water from unknown sources. The Vandenberg AFB DTG Program was developed to track these discharges and eliminate illicit discharges. Prior to discharging accumulated water, facility operators must submit a DTG Characterization Form to 30 CES/CEAN for assessment. Samples are collected and analyzed for potential pollutants when insufficient knowledge regarding the discharge exists. If sample results exceed program screening values, which are intended to protect underlying groundwater, the water is collected, hauled and disposed of at the Vandenberg AFB Industrial Wastewater Treatment Plant. If the sample results are below program screening levels, the discharge to grade is authorized. 30 CES/CEAN will continue to implement the DTG Program and refine characterization techniques over time.

d Dewatering Systems Inventory. Accumulated water within utility vaults, sumps, and underground structures has the potential to contain pollutants. In 2007, 30 CES/CEAN surveyed facilities on base to obtain an inventory of these structures and evaluate the risk of illicit discharge. Underground structures that are equipped with permanent discharge systems were inspected, and samples of the accumulated water were collected and analyzed at facilities with a high potential to discharge. The results of the assessment were reviewed and priorities established for future mitigation efforts.

[1] Annual phone surveys will be conducted in conjunction with the annual wastewater survey to inventory any newly constructed underground structures with dewatering systems. Any underground structures that discharge to grade, but are not enrolled in the DTG Program, will be evaluated for enrollment.

[2] Non-storm water discharges exempt under the Small MS4 General Permit will also be evaluated to determine their potential as a significant source of pollutants to the MS4. Non-storm water discharge(s) identified as having the potential to be a significant source of pollutants to the MS4 will be prohibited.

e Outfall Survey. 30 CES/CEAN performed a dry weather outfall reconnaissance survey of 85 outfalls in 2005 and 15 outfalls in 2008 to gather baseline data regarding outfall type, size, location, status, flow, receiving water body condition, etc. Observer comments and photographs were recorded for each location.

[1] 30 CES/CEAN intends to continue outfall reconnaissance surveys to identify potential illicit discharges. A complete inventory of

all outfalls will be developed and prioritized based on the potential to discharge pollutants. High priority outfalls will be inspected annually, whereas low priority outfalls will be inspected biennially. During the outfall surveys special attention will be given to examining the site for primary pollutants of concern, including: nutrients, metals, salinity, sediment, indicator bacteria, and trash. When applicable, grab samples will be collected for analysis by a certified laboratory.

[2] Non-storm water discharges exempt under the Small MS4 General Permit will also be evaluated to determine their potential as a significant source of pollutants to the MS4. Non-storm water discharge(s) identified as having the potential to be a significant source of pollutants to the MS4 will be prohibited.

[3] All findings of the survey will be documented and tracked over time. Outfalls in need of maintenance will be documented and reported by 30 CES/CEAN via the DSW request system and cleaned by 30 CES/CEOHH in an expedient manner (see BMP GH-5).

f If illicit discharges are detected during the Wastewater Survey, Utility Vault/Underground Structure Survey, or Outfall Survey, 30 CES/CEAN will initiate the following inspection and escalating enforcement strategy while also conforming to the Legal Authority and Enforcement Policy described in Section 3.e.(4) :

[1] 30 CES/CEAN will notify the discharger verbally and recommend an appropriate BMP for the facility representative to implement to eliminate the discharge. In some cases, the complexity of the discharge or infrastructure will require a Base Civil Engineer Work Request (*30th Civil Engineer Squadron BCE Work Request and Clearance Request Instruction*, AF Form 332, BCE Work Request) to be completed and routed for approval/signature by the facility manager.

[2] For easily mitigated illicit discharges, a follow up inspection will be performed within 15 to 20 days of the initial determination of an illicit discharge. If the discharge is not eliminated, 30 CES/CEAN will staff and coordinate mitigation through the appropriate group commander to ensure the illicit discharge is eliminated. An additional follow-up inspection will be accomplished 30 days after group commander notification. If pertinent, the appropriate contracting organization will also be contacted regarding the discharge violation and requested to enforce the pertinent provisions of a contractor's contract. If the illicit discharge is still not eliminated, 30 CES/CEAN will notify the CCRWQCB and request support with enforcement.

[3] For illicit discharges requiring a BCE Work Request, 30 CES/CEAN will coordinate with the applicable facility manager to implement an interim solution. 30 CES/CEAN will conduct a follow-up inspection of the interim solution within 15-20 days. 30 CES/CEAN will regularly monitor the progress of the BCE Work Request and status of the long-term solution. If after 60 days 30 CES/CEAN determines long-term solution to be stagnated, 30 CES/CEAN will staff and coordinate mitigation through the appropriate group commander. Upon implementation of a long-term solution, 30 CES/CEAN will conduct a final inspection for compliance with the Small MS4 General Permit.

g Inspection and enforcement of illicit discharges detected within BBC Housing are the responsibility of BBC (refer to Section 3.e.(4)(c) regarding the enforcement policy of BBC). BBC is responsible for notifying 30 CES/CEAN of any detected illicit discharges. 30 CES/CEAN will document and actively monitor the progress of illicit discharge elimination within BBC Housing. 30 CES/CEAN will conduct a final inspection of all mitigation efforts to assure discharge elimination.

h Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Year 1: Prepare a complete inventory of all outfalls and prioritize each outfall based on subcatchment characteristics.

[2] 30 CES/CEAN and 30 CES/CEOHH, Years 1–5: Conduct dry weather inspections of all high priority outfalls annually and all low priority outfalls biennially. Document outfalls in need of maintenance and report via the DSW request system so necessary cleaning may occur.

[3] 30 CES/CEAN, Years 1, 3, and 5: Perform comprehensive analysis of outfall survey data collected and utilize information to support assessment of BMP, MCM, and program effectiveness

[4] 30 CES/CEAN, Years 3–5: Prioritize industrial facilities on base by their potential to contribute pollutants to the MS4. Enhance the wastewater surveys to include annual inspection of all food service establishments and high priority industrial facilities. Distribute educational materials during facility inspections.

[5] 30 CES/CEAN, Years 1–5: Evaluate non-storm water discharges exempt under the Small MS4 General Permit for their potential as a significant source of pollutants to the MS4. Prohibit permit exempt non-storm water discharge(s) identified as a significant source of pollutants. Eliminate all illicit discharges. Coordinate with BBC

Housing when appropriate. Document identified illicit discharges, track progress of closure, and conduct inspections as appropriate.

2 ID-2, Municipal Separate Storm Sewer System Map.

a A basic map of the Vandenberg AFB storm sewer system has been developed using geographic information system (GIS) software and in coordination with the Vandenberg AFB GeoBase Integration Office (30 CES/CECB). The map displays boundaries of the permitted area on Vandenberg AFB and the conveyance system.

b Storm water outfalls as well as known and potential Waters of the US will be indicated on the map. During the illicit discharge investigation (see BMP ID-1), data gaps will be noted and corrected on the map to create an accurate and up-to-date document.

c Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Year 1: Further develop the existing MS4 map to include storm water outfalls and known and potential Waters of the US.

[2] 30 CES/CEAN, Years 2–5: Review the map annually and update as needed with data collected during the illicit discharge investigation process.

3 ID-3, Storm Water Training for Facility Managers.

a Each facility at Vandenberg AFB has a facility manager that is responsible for keeping track of operations and maintenance of the facility. All new facility managers receive training from the 30 CES Customer Service (30 CES/CEOSC), which is advertised in the *Vandenberg Base Bulletin*. Mandatory training for new facility managers is offered quarterly. All training slides and attendance info for these new facility manager training sessions are documented and tracked by 30 CES/CEOSC. Thereafter, mandatory annual refresher courses are offered to facility managers on an individual basis. Each facility manager is responsible for documentation and tracking of their own facility manager refresher training.

b Topics for facility manager training include safety, fire protocol, spill response, work order procedures, etc. *30th Space Wing Facility Manager Program*, 30 SWI 32-1001, sets forth facility manager responsibilities and is updated as necessary. Updates to this document are distributed to all applicable facility managers during annual refresher training. 30 CES/CEAN will ensure currency of the storm water pollution prevention guidelines in this publication. Future updates to the publication will

address primary pollutants of concern including nutrients, metals, sediment, pathogens, and trash.

c 30 CES/CEOSC will work with 30 CES/CEANQ Water Resources Section to incorporate storm water pollution prevention education and illicit detection and abatement techniques into the existing facility manager training program.

d Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Year 1: Develop illicit discharge detection and elimination material for inclusion into the existing facility manager training program.

[2] 30 CES/CEOS, Year 1: Update 30 SWI 32-1001 with storm water pollution prevention guidelines and address the control of primary pollutants of concern including nutrients, metals, sediment, pathogens, and trash.

[3] 30 CES/CEAN and 30 CES/CEOSC, Years 2–5: Hand out materials regarding the storm water program, illicit discharge detection, and pollution prevention at each quarterly facility manager training session. Track the number of facility managers trained.

4 ID-4, Illicit Discharge Incident Response and Reporting.

a Procedures similar to those specified in the *Comprehensive Emergency Management Plan, 10-2* and *Hazardous Materials Emergency Response Plan, 30 SW Plan 32-4002-A (HMERP)* and summarized in the following sections are to be used for response to and reporting of illicit discharges to the MS4.

b If a release poses a threat to property or the environment, facility operators make immediate notification to the 24-hour manned Command Post at 805-606-9961. The Command Post notifies first responders, which consists of a 30th CES Spill Team or the Hazardous Material Response Team (i.e. Vandenberg AFB Fire Department) depending on the nature and size of the spill. The applicable first responders are notified regardless of time or day and respond in a manner consistent with the procedures defined in the *Comprehensive Emergency Management Plan, 10-2* and the HMERP.

c 30 CES/CEAN is notified immediately of any releases posing a threat to the environment. After appropriate internal coordination, 30 CES/CEAN makes the notifications to external agencies mandated by applicable regulations and prepares the required reports. All incidents must be reported to 30 CES/CEAN within 24 hours.

d 30 CES/CEAN will complete an “Illicit Discharge Incident Tracking Sheet” for all illicit discharges. The tracking sheet will document the nature, time, and place of discharge; responsible party; inspection resolution; and follow-up actions. 30 CES/CEAN will utilize over the long term implementation of the SWMP illicit discharge incident statistics to evaluate effectiveness of existing public education and outreach. 30 CES/CEAN will revise applicable BMPs and measurable goals as necessary to reduce illicit discharges.

e When applicable, 30 CES/CEAN will utilize the inspection and escalating enforcement strategies defined for BMP ID-1. All enforcement activities will conform to the Legal Authority and Enforcement Policy described in Section 3.e.(4).

f Hazardous waste and recycling programs are coordinated by 30 CES/CEAN, the same organization that will oversee elimination of illicit discharges. 30 CES/CEAN weekly staff meetings and the Storm Water Subcommittee (described in BMP PP-2) are currently utilized to coordinate these programs and facilitate illicit discharge elimination. The same meetings will be an opportunity for hazardous waste and recycling programs to coordinate with each other and improve opportunities to prevent illicit discharges.

g Measurable Goal and Tasked Organizations.

[1] 30 CES/CEAN, Years 1–5: Ensure all identified illicit discharges are eliminated to the maximum extent practicable.

[2] 30 CES/CEAN, Years 1–5: Track all reported incidents and retain a copy of all “Illicit Discharge Incident Tracking Sheets.”

[3] 30 CES/CEAN, Years 3–5: Utilize illicit discharge incident statistics to evaluate public education and outreach. Revise applicable BMPs and measurable goals as necessary to reduce illicit discharges.

5 ID-5, Illicit Discharge Detection and Elimination Pocket Guide.

a Employee/contractor/public participation and recognition of illicit discharges will greatly reduce the economic, health, and environmental consequences associated with illicit connections and discharges into the MS4. 30 CES/CEAN will develop an illicit discharge detection and elimination pocket guide for employees and contractors that will be working in the field to provide additional information and guidance for identifying and reporting illicit discharges, connections, or activity encountered during their regular duties. The pocket guide will address applicable pollutants of concern such as nutrients, metals, sediment, pathogens, and trash. The pocket guide will be distributed to the

applicable shops on base during training sessions and inspections, as well as to the public.

b Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Year 2: Develop an Illicit Discharge Detection and Elimination Pocket Guide.

[2] 30 CES/CEAN, Years 2–5: Disseminate the pocket guide to all shops during training sessions and inspections, as well as to the public.

[3] 30 CES/CEAN, Years 3–5: Review the pocket guide annually for updates and amend as necessary.

6 ID- 6, Fundraiser Car Wash Protocol.

a Occasionally, fundraiser car washes occur within the Vandenberg AFB main cantonment area. Organizations promoting the fundraiser are required to complete a 30 SW Form 400, *Request to Use Base Facilities/Transportation*, which is submitted to 30 MSG/CD. Currently, the 30 CES Command Section reviews all forms and applies standard conditions/BMPs provided by 30 CES/CEAN for car washes. These standard conditions include use of only phosphate free, biodegradable soap, prevention of wash water from entering storm drains by locating the car wash away from storm drains or containing the wash water until it evaporates or percolates, and a prohibition on engine degreasing.

b Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN and 30 MSG/CD Year 2: Develop a protocol for car wash fundraiser requests which includes 30 CES/CEAN review and approval.

[2] 30 CES/CEAN, Years 3–5: Review all car wash requests for threats to water quality and apply standard conditions/BMPs based upon that threat.

7 ID-7, Illicit Discharge Detection and Elimination Policy.

a A policy will be prepared by 30 CES/CEAN and 30th Space Wing Judge Advocate (30 SW/JA) prohibiting unauthorized non–storm water discharges into the MS4. Current illicit discharges regulations applicable to Vandenberg AFB include those found within Title 40 Code of Federal Regulations Part 122, 123, 124, 131 and California Code of Regulations Title 23.

b The policy will be used as a tool for the Air Force to meet the enforcement requirements of the NPDES regulations and safeguard persons, protect property, and prevent damage to the environment at Vandenberg AFB. Primary Pollutants of Concern such as nutrients, metals, sediment, pathogens, and trash will be specifically addressed. Pet waste restrictions will also be included in the policy. Those POCs referenced above in section 3.c.(8) will also be incorporated as applicable.

c ID-1, ID-4 and Section 3.e.(4) of this plan describes the strategy for escalating enforcement at Vandenberg AFB. These descriptions generally portray the potential escalating enforcement strategy that will be defined within the Illicit Discharge Detection and Elimination Policy.

d This Storm Water Management Plan is considered 30th Space Wing policy upon its adoption by the ESOH Council. All personnel and contractors must comply with its stated requirements. The policy will be included as an Appendix to this Plan and will be distributed via email and posted on the Vandenberg AFB public website (internet) and the 30 CES/CEAN Portal website (intranet).

e Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN and 30 SW/JA, Year 1: Develop illicit discharge detection and elimination policy prohibiting unauthorized non-storm water discharges to the Vandenberg AFB MS4.

[2] 30 CES/CEAN and 30 CES/CC, Year 2: Acquire policy approval by the ESOH Council and incorporate as an appendix into this SWMP. Distribute the policy via email and post on the Vandenberg AFB public website (internet) and the 30 CES/CEAN Portal website (intranet).

[3] 30 CES/CEAN and 30 SW/JA, Years 2–5: Enforce the policy letter and utilize enforcement statistics to assess BMP, MCM, and program effectiveness.

8 ID-8, Storm Water Hotline.

a The 30 CES/CEANQ Water Resources Section serves as the primary point of contact for issues relating to storm water pollution prevention at Vandenberg AFB. The phone numbers for the Water Resources Section points of contact are 805-606-7541 and 805-605-0503. These phone numbers will serve as the official Storm Water Hotline phone numbers to be included on all future public education and outreach materials prepared in accordance with this SWMP. The phone numbers for the Water Resources Section are currently advertised in the Vandenberg AFB Telephone Directory and on the Vandenberg AFB intranet site.

b The public will be encouraged to utilize these phone numbers to report illicit discharges, provide comments regarding the storm water program or this SWMP, and/or ask questions about storm water pollution prevention. Illicit discharge incidents, including those during non-business hours, will be addressed using response and reporting procedures defined within BMP ID-1 and ID-4. When notified of an illicit discharge 30 CES/CEAN will complete an “Illicit Discharge Incident Tracking Sheet.” The tracking sheet will document the nature, time, and place of discharge; responsible party; inspection resolution and response time; and follow-up actions.

c Measurable Goals and Tasked Organizations.

[a] 30 CES/CEAN, Years 1–5: Advertise the Storm Water Hotline phone number on all storm water educational materials and during storm water training events.

[2] 30 CES/CEAN, Years 2–5: Respond to all incidents of illicit discharge within 24 hours and implement proper response and reporting procedures (see BMP ID-4).

Table 4
Illicit Discharge Detection and Elimination BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
ID-1	Facility Inspections and Discharge Investigations	Assess for potential illicit discharges based on current water quality data and known challenges; historical and current discharge concerns; results of previous surveys and inspections; and analysis of the MS4 Map via the Wastewater Discharge Survey and Inventory, Utility Vault/Underground Structure Survey, Discharge to Grade Program, and Outfall Survey.	1. Prepare a complete inventory of all outfalls and prioritize each outfall based on subcatchment characteristics.	30 CES/CEAN	x					3, 4, 5
			2. Conduct dry weather inspections of all high priority outfalls annually and all low priority outfalls biennially. Document outfalls in need of repair and report via the DSW request system.	30 CES/CEAN and 30 CES/CEOHH	x	x	x	x	x	
			3. Perform comprehensive analysis of outfall survey data collected; utilize information to support assessment of BMP, MCM, and program effectiveness.	30 CES/CEAN	x		x		x	
			4. Prioritize facilities on base for potential to discharge pollutants. Enhance the wastewater surveys to include annual inspection of all food service establishments and high priority industrial facilities. Distribute educational materials during inspections.	30 CES/CEAN			x	x	x	

Table 4, Page 1 of 5.

Table 4 (Continued)
Illicit Discharge Detection and Elimination BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
ID-1 (Cont.)	Facility Inspections and Discharge Investigations		5. Evaluate non-storm water discharges exempt under the Small MS4 General Permit for their potential as a significant source of pollutants to the MS4. Prohibit permit exempt non-storm water discharge(s) identified as a significant source of pollutants. Eliminate illicit discharges and implement an escalating enforcement policy. Document all mitigation and elimination efforts.	30 CES/CEAN	x	x	x	x	x	
ID-2	Municipal Separate Storm Sewer System Map	Develop a storm sewer system map showing the location of all outfalls and the names and locations of all Waters of the United States that receive discharges from those outfalls.	1. Further develop the existing MS4 map to include storm water outfalls and known and potential Waters of the US.	30 CES/CEAN	x					2
			2. Review the map annually and update as needed with data collected during the illicit discharge investigation process.	30 CES/CEAN		x	x	x	x	

Table 4 (Continued)
Illicit Discharge Detection and Elimination BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
ID-3	Storm Water Training for Facility Managers	Topics include safety, fire protocol, spill response, work order procedures, etc. Storm water pollution prevention education and illicit detection and abatement techniques will be incorporated into the existing facility manager training program and the program manual, 30 SWI 32-1001.	1. Develop illicit discharge detection and elimination material for inclusion into the existing facility manager training program.	30 CES/CEAN	x					2, 3
			2. Update 30 SWI 32-1001 with storm water pollution prevention guidelines and address the control of primary pollutants of concern.	30 CES/CEOS	x					
			3. Hand out materials regarding storm water program, illicit discharge detection, and pollution prevention at bimonthly facility manager training session. Track number of facility managers trained.	30 CES/CEAN and 30 CES/CEOSC		x	x	x	x	

Table 4, Page 2 of 5.

Table 4 (Continued)
Illicit Discharge Detection and Elimination BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
ID-4	Illicit Discharge Incident Response and Reporting	Procedures similar to those specified in the <i>Hazardous Materials Emergency Response Plan</i> , 30 SW Plan 32-4002-A (HMERP), are to be used for response to and reporting of illicit discharges to the MS4.	1. Ensure all identified illicit discharges are eliminated to the maximum extent practicable.	30 CES/CEAN	x	x	x	x	x	4
			2. Track all reported incidents and retain a copy of all Illicit Discharge Incident Tracking Sheets.	30 CES/CEAN	x	x	x	x	x	
			3. Utilize illicit discharge incident statistics to evaluate public education and outreach. Revise applicable BMPs and measurable goals as necessary to reduce illicit discharges.	30 CES/CEAN			x	x	x	
ID-5	Illicit Discharge Detection and Elimination Pocket Guide	Develop an illicit discharge detection and elimination pocket guide for employees and contractors that will be working in the field. The guide will provide additional information and guidance for identifying and reporting illicit discharges, connections, or activity encountered during their regular duties.	1. Develop an Illicit Discharge Detection and Elimination Pocket Guide.	30 CES/CEAN		x				2, 3
			2. Disseminate the pocket guide to all shops during training sessions and inspections, as well as to the public.	30 CES/CEAN		x	x	x	x	
			3. Review the pocket guide annually for updates and amend as necessary.	30 CES/CEAN			x	x	x	

Table 4, Page 3 of 5.

Table 4 (Continued)
Illicit Discharge Detection and Elimination BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
ID-6	Fundraiser Car Wash Protocol	All 30 SW Forms 400, <i>Request to Use Base Facilities/ Transportation</i> for fundraiser car washes will be submitted to 30 CES/CEAN for review and approval.	1. Develop a protocol for car wash fundraiser requests which includes 30 CES/CEAN review and approval.	30 CES/CEAN and 30 MSG/CD		x				2, 3, 4, 5
			2. Review all car wash requests for threat to water quality and apply standard conditions/BMPs based upon the threat.	30 CES/CEAN			x	x	x	
ID-7	Illicit Discharge Detection and Elimination Policy	Prepare a policy prohibiting unauthorized non-storm water discharges into the MS4. The policy letter will be used as a tool for the Air Force to meet the storm water management requirements of the NPDES regulations and safeguard persons, protect property, and prevent damage to the environment at Vandenberg AFB.	1. Develop illicit discharge detection and elimination policy prohibiting unauthorized non-storm water discharges to the Vandenberg AFB MS4.	30 CES/CEAN and 30 SW/JA	x					2, 3, 4, 5
			2. Acquire policy approval by the ESOH Council. Distribute the policy via email and post on the Vandenberg AFB public website (internet) and the 30 CES/CEAN Portal website (intranet).	30 CES/CEAN and 30 CES/CC		x				
			3. Enforce the policy letter and utilize enforcement statistics to assess BMP, MCM, and program effectiveness. Refine applicable BMPs accordingly to reduce enforcement actions.	30 CES/CEAN and 30 SW/JA		x	x	x	x	

Table 4, Page 4 of 5.

Table 4 (Continued)
Illicit Discharge Detection and Elimination BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
ID-8	Storm Water Hotline	The phone number, 805-606-7541, will serve as the official Storm Water Hotline to be included on all future public education and outreach materials prepared in accordance with this SWMP.	1. Advertise the Storm Water Hotline phone number on all storm water educational materials and during storm water training events.	30 CES/CEAN	x	x	x	x	x	2, 3
			2. Respond to all incidents of illicit discharge within 24 hours and implement proper response and reporting procedures.	30 CES/CEAN		x	x	x	x	

Table 4, Page 5 of 5.

(4) Construction Site Storm Water Runoff Controls. The purpose of the Construction Site Storm Water Runoff Control (CS) MCM is to prevent soil and construction materials and wastes from leaving the site and entering the storm water drainage system. In particular, the focus of this MCM is on controlling erosion and sedimentation. Other pollutants commonly discharged from construction activities include solid and sanitary wastes, asphalt, roofing tar, oil and grease, concrete truck washout waste, chemicals (e.g., paint, thinners, solvents, adhesives, curing compounds), and litter.

(a) Construction projects one acre or greater in size at Vandenberg AFB are subject to all requirements of the Construction Storm Water General Permit. Provision D.2.d of Small MS4 General Permit also contains requirements for the Air Force to develop a program to control construction site runoff and must include, at a minimum:

1 An ordinance, policy, or other regulatory mechanism to require erosion and sediment controls (ESCs) at the construction sites, as well as sanctions to ensure compliance, to the extent allowable under federal, state, and local law.

2 Requirements for construction site operators to implement appropriate and effective erosion and sediment control BMPs.

3 Requirements for construction site operators to control waste at the construction site such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste that causes adverse impacts to water quality.

4 Procedures for site plan review that incorporate consideration of potential water quality impacts.

5 Procedures for receipt of and consideration of information submitted by the public.

6 Procedures for site inspection and enforcement of control measures.

(b) Construction Site Storm Water Runoff Control BMPs. The CS BMPs and the related measurable goals which follow are also summarized in Table 5.

1 CS-1, Construction Contract Specifications.

a Construction contracts are facilitated by a variety of contracting agencies depending on project type, size, value, location, and project proponent. The majority of construction contracts at Vandenberg AFB are facilitated by the 30th Contracting Squadron (30 CONS) or the 30 CES Engineering Contracts Element (30 CES/CECC). Boilerplate contract specifications for construction activities exist. Boilerplate contract specifications will be reviewed and updated to reflect requirements of the

Construction Storm Water General Permit, Small MS4 General Permit, and this SWMP (see BMP PC-1 for details regarding this process).

b The specifications will continue to require BMPs for erosion and sediment control, construction materials storage, waste management, and non-storm water management.

c Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, 30 CONS, and 30 CES/CECC, Year 2: Review boilerplate construction contract specifications for inclusion of storm water pollution prevention provisions and prohibitions. Prepare draft revisions to the boilerplate.

[2] 30 CES/CEAN, 30 CONS, and 30 CES/CECC, Year 3: Update the construction contracts boilerplate and utilize the boilerplate for all new construction contracts.

2 CS-2, Contractor Compliance Compact Disc.

a 30 CES/CEAN will make available to contractors a Contractor Compliance Compact Disc (CD), which contains electronic copies of all applicable 30 SW Plans, including, but not limited to, this SWMP (30 SW Plan 32-7041-C), the SWPPP (30 SW Plan 32-7041-B), and the WMP (30 SW Plan 32-7041-A). In addition, the CD contains a Microsoft PowerPoint presentation addressing Construction Storm Water General Permit compliance. The intent of this CD is to help contractors and their subcontractors comply with the federal, state, and local laws and regulations and Air Force policies, instructions, and plans.

b When plans and instructional materials are updated, a revised Contractor Compliance CD will be produced and contractors will be notified of the update via email. 30 CES/CEAN maintains a distribution list of contractors who have copies of the Contractor Compliance CD. The distribution list includes the contractor's name, company, phone number, email address, and signature.

c Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Years 1–5: Continue to provide the Contractor Compliance CD to Vandenberg AFB construction contractors. Track the receipt of CDs.

[2] 30 CES/CEAN, Years 2–5: Review and update the CD annually as necessary to incorporate new plan versions and training materials.

3 CS-3, Construction Site Oversight.

a Contractors must obtain coverage under the Construction Storm Water General Permit when a project will disturb greater than one acre of land. Contractors must complete all applicable documentation, perform inspections, and coordinate with 30 CES/CEAN to obtain landowner signature of the Notice of Intent (NOI) and Notice of Termination (NOT). The 30 CES/CEAN will provide oversight of construction sites through the execution of SWPPP reviews, site inspections, and recordkeeping. Contractors must submit copies of Annual Compliance Certifications with proof of CCRWQCB receipt to 30 CES/CEAN.

b After a construction contract is awarded, the contractor must develop a site-specific construction SWPPP, which 30 CES/CEAN reviews for completeness and adherence to the Construction Storm Water General Permit. The 30 CES/CEAN SWPPP review also includes an evaluation of BMPs for appropriate and effective erosion and sediment control BMPs, materials storage, waste management and non-storm water BMPs. Sampling and analysis requirements are also evaluated.

c Construction contractors perform compliance inspections, and 30 CES/CEAN performs oversight inspections. Per the Construction General Permit and contract specifications, construction contractors will conduct BMP inspections before and after rain events (rainfall that has the potential to produce runoff), and every 24 hours during extended rain events. Inspections would also be needed in the case of non-storm water activities that have the potential to produce runoff. 30 CES/CEAN will conduct oversight inspections twice a month during the rainy season and monthly during the dry season. During inspections, the 30 CES/CEAN will review a contractor's site inspection reports and available sampling results. A site walk is also performed during which the 30 CES/CEAN inspector would identify potential pollution sources and provide advisement if additional BMPs are necessary to maintain permit compliance. 30 CES/CEAN will track its oversight inspections on a construction site spreadsheet. 30 CES/CEAN will respond to all public comments using the procedures previously defined in BMP ID-8.

d Contractor noncompliance will result in 30 CES/CEAN requesting the construction site manager to initiate prompt corrective action. If the contractor fails to correct the issue, the Contracting Officer will be notified. The Contracting Officer will ask the construction site manager to initiate prompt corrective action. If the contractor fails to correct the issue, the Contracting Officer may use a stop work order or a contract setoff action (a monetary penalty). If the contractor still fails to correct the noncompliance issue, the matter will be elevated to the 30 SW/CC. The 30 SW/CC has the authority to have the contractor escorted from the base and barred from

entering Vandenberg AFB in the future. Legal action may include a civil action or criminal prosecution. 30 CES/CEAN will respond to all public inquiries and notifications regarding construction site activities and compliance within 48 hours.

e Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Years 1–5: Review all construction SWPPPs prior to a contractor breaking ground.

[2] 30 CES/CEAN, Years 1–5: Prepare a storm water inspection checklist for use in the field. Conduct oversight inspections twice a month during the rainy season and monthly during the dry season. Verify and document that construction contractors are conducting compliance and BMP inspections before and after rain events, every 24 hours during extended rain events and during activities that have the potential for non-storm water runoff. Track contractor and oversight inspections on a construction site spreadsheet. If enforcement actions are required beyond verbal warnings, document the violations and coordinate with the contracting officer to pursue the most appropriate actions. Retain copies of annual Compliance Certifications provided by contractors.

[3] 30 CES/CEAN, Years 1–5: Document and track construction site details for all Vandenberg AFB sites that disturb one acre or more. Track and respond to all public inquiries and notifications regarding construction site activities and compliance within 48 hours.

4 CS-4, Construction Storm Water Pollution Prevention Training.

a Currently, 30 CES/CEAN conducts biannual construction training events. The training presents topics related to Construction Storm Water General Permit requirements (applying for and closing permit coverage, developing and implementing a SWPPP, inspecting the site, sample collection, and reporting and record keeping requirements), proper BMP implementation, and innovative pollution prevention practices. Various applicable Vandenberg AFB organizations and construction contractors are invited to attend the training events. 30 CES/CEP project managers and construction inspectors will attend one storm water training event related to permit compliance and proper selection and implementation of erosion and sediment control practices during each five year plan period.

b Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Years 1–5: Continue to perform biannual construction training events. Retain sign-in sheets and document attendance. Review presentation content and update as necessary.

[2] 30 CES/CEP, Years 1-5: Project managers and construction inspectors will attend one storm water training event related to permit compliance and proper selection and implementation of erosion and sediment control practices during each five year plan period.

5 CS-5 Erosion and Sediment Control Standard.

a Minimizing erosion and sediment runoff from construction sites is one of the primary ways to minimize the discharge of pollutants to the MS4. For construction projects covering an area greater than one acre, a Construction Storm Water General Permit will be obtained, a site-specific SWPPP will be developed and implemented, regular inspections will be performed, and reporting to the CCRWQCB will be completed. Any construction contractor for Vandenberg AFB is contractually obligated to manage site permitting.

b The General Permit requires Vandenberg AFB to implement “An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions, or other effective mechanisms, to ensure compliance, to the extent allowable under State, or local law.” Therefore, 30 CES/CEAN will examine policies within the Vandenberg AFB General Plan, *Facilities Excellence Standards*, and other Air Force instruction and policies related to erosion and sediment control for incorporation into a single Erosion and Sediment Control Standard. 30 CES/CEAN will ensure the standard establishes prescriptive language regarding erosion and sediment control, and will also consider the following for inclusion into the standard:

[1] Specific grading and drainage criteria;

[2] Definitions that conform to those utilized within the General Permit;

[3] Guidance on the use of approved BMP specifications;

[4] Authority of construction inspectors as well as site inspection and enforcement procedures; and

[5] Specific requirements and documentation for construction site operators to control and contain waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site.

c 30 CES/CEAN will coordinate with 30 CES/CEC and 30 CES/CECE during development of the standard. Contractor adherence to the Erosion and Sediment Control Standard will be a provision of all relevant construction contracts. Enforcement of the Erosion and Sediment Control

Standard will be conducted through the implementation of on-site construction inspections. The standard will document an escalating enforcement strategy similar to the strategy portrayed in Section 3.e.(4) and will include an increased inspection frequency due to non-compliance.

d This Storm Water Management Plan is considered 30th Space Wing policy upon its adoption by the ESOH Council. All personnel and contractors must comply with its stated requirements. The standard will be included as an Appendix to this Plan and will be distributed via email and posted on the Vandenberg AFB public website (internet) and the 30 CES/CEAN Portal website (intranet).

e Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, 30 CES/CEC, and 30 CES/CECE, Year 2: Develop and adopt an Erosion and Sediment Control Standard which includes an escalating enforcement strategy and provisions for increased inspection due to non-compliance. Distribute the standard to stakeholders within three months of adoption.

[2] 30 CES/CEAN, Years 3–5: Track compliance with the adopted Erosion and Sediment Control Standard. Utilize compliance statistics to assess BMP, MCM, and program effectiveness.

Table 5
Construction Site Storm Water Runoff Control BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
CS-1	Construction Contract Specifications	Review and update model construction contract specifications to reflect requirements of the Construction Storm Water General Permit, Small MS4 General Permit, and this SWMP (see BMP PC-1).	1. Review model construction contract specifications for inclusion of storm water pollution prevention provisions. Prepare draft revisions to the model specification.	30 CES/CEAN, 30 CONS, and 30 CES/CECC		x				3, 4
			2. Update the construction contracts boilerplate and utilize for all new construction contracts.	30 CES/CEAN, 30 CONS, and 30 CES/CECC			x			
CS-2	Contractor Compliance Compact Disc	Contractor Compliance Compact Disc (CD) will be available for contractors. The CD contains electronic copies of all applicable 30 SW Plans and a presentation addressing Construction Storm Water General Permit compliance.	1. Continue to provide the Contractor Compliance CD to Vandenberg AFB construction contractors. Track the distribution of CDs.	30 CES/CEAN	x	x	x	x	x	1, 2, 3
			2. Review and update the CD annually as necessary to incorporate new plan versions and training materials.	30 CES/CEAN		x	x	x	x	

Table 5, Page 1 of 3.

Table 5 (Continued)
Construction Site Storm Water Runoff Control BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
CS-3	Construction Site Oversight	Construction sites one acre or greater are subject to coverage under the Construction Storm Water General Permit. All aspects of the projects are overseen and tracked, such as SWPPP development, inspections, and reporting performed by contractors or the Air Force.	1. Review all construction SWPPPs prior to contractor breaking ground.	30 CES/CEAN	x	x	x	x	x	1, 2, 3, 4, 5
			2. Conduct oversight inspections every other month during the rainy season and prior to the Notice of Termination submittal. Verify and document that construction contractors are conducting applicable inspections before and after rain events, every 24 hours during extended rain events and during activities that have the potential for non-storm water runoff. Track all oversight inspections.	30 CES/CEAN	x	x	x	x	x	
			3. Document and track construction site details for all Vandenberg AFB sites that disturb one acre or more. Track and respond to all public inquiries and notifications regarding construction site activities and compliance within 48 hours.	30 CES/CEAN	x	x	x	x	x	

Table 5, Page 2 of 3.

Table 5 (Continued)
Construction Site Storm Water Runoff Control BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
CS-4	Construction Storm Water Pollution Prevention Training	Biannual construction training events are conducted to present topics related to Construction Storm Water General Permit requirements, proper BMP implementation, and innovative pollution prevention practices. Various organizations and construction contractors are invited to attend.	1. Continue to perform biannual construction training events. Retain sign-in sheets and document attendance. Review presentation content and update as necessary.	30 CES/CEAN	x	x	x	x	x	2, 3
			2. Project managers and construction inspectors will attend one storm water training event related to permit compliance and proper selection and implementation of ESC practices during each five year plan period.	30 CES/CEP	x	x	x	x	x	
CS-5	Erosion and Sediment Control Standard	Adopt an Erosion and Sediment Control Standard.	1. Develop and adopt an ESC Standard which includes an escalating enforcement strategy and provisions for increased inspection due to non-compliance. Distribute to stakeholders within three months of adoption.	30 CES/CEAN 30 CES/CEC 30 CES/CECE		x				4, 5
			2. Track compliance with the adopted Erosion and Sediment Control Standard. Utilize compliance statistics to assess BMP, MCM, and program effectiveness.	30 CES/CEAN			x	x	x	

Table 5, Page 3 of 3.

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(5) Post-Construction Storm Water Management. The post-construction storm water management (PC) MCM requires the Air Force to include BMPs to control runoff and discharge to receiving waters. Post-construction BMPs address storm water runoff after construction activities have been completed and include practices to filter, retain, and treat runoff on-site and innovative site designs that reduce imperviousness to achieve the goals of reducing flow and improving water quality.

(a) The Small MS4 General Permit requires long-term, post-construction BMPs that protect water quality and control runoff flow. These BMPs are to be incorporated into development and significant redevelopment projects. Provision D.2.e of the Small MS4 General Permit requires, at a minimum, the following:

1 Develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb areas of one acre or larger, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the Small MS4. Also, ensure that controls are in place to prevent or minimize water quality impacts.

2 Develop and implement strategies that include a combination of structural and/or non-structural BMPs appropriate to Vandenberg AFB.

3 Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under state and local law.

4 Ensure adequate long-term operation and maintenance of BMPs.

(b) Post-construction storm water management must be considered during the planning and design of new and redevelopment projects. Post-construction storm water measures can include base of mechanical or structural storm water treatment devices but are more often low impact development methods such as minimizing and disconnecting impervious surfaces, use of vegetative treatments (such as bioswales, rain gardens, storm water planters) and protection of native vegetation.

(c) Post-Construction Storm Water Management BMPs. The PC BMPs and the related measurable goals which follow are also summarized in Table 6.

1 PC-1, Project Planning, Programming, Design, and Approval Process.

a Project Planning and Programming. Project planning is the process of identifying facilities needed to satisfy current and future mission requirements, and project programming is the process of developing and obtaining approval and funding. Vandenberg AFB has prepared and maintains an up-to-date General Plan, which identifies existing facility locations and new facility siting opportunities given existing and future mission requirements.

[1] Project planning and programming at Vandenberg AFB is accomplished in a variety of ways depending on project size, purpose, and cost. Regardless of these factors, a Base Civil Engineer (BCE) Work Request must be completed.

[2] BCE Work requests are normally originated by the requesting organizations, but are also originated by 30 CES staff. BCE Work Requests are coordinated with and reviewed by, at a minimum, the following organizations: 30 CES/CEAN, 30 SW/SEGB (Ground Safety), 30 CES/CEFS (Fire Prevention), MDOS/SGOAB (Bioenvironmental Engineering), and 30 CES/CECB (Base Planning).

[3] A project is not approved for design (Air Force Space Command Projects) or construction until a fully coordinated BCE Work Request has been signed by the Operations Flight Commander and/or Deputy. Once a project has been approved, the BCE Work Request Review Board will determine whether the project, including design and construction, will be accomplished by in-house personnel or by a contractor.

b Project Design. In general, programmed projects are designed either by contractors or 30 CES/CEC. Designs prepared by contractors are overseen by 30 CES/CEC. All designs are required to meet applicable federal, state, and local environmental and construction standards and codes. Project designers are also required to use local design guidance known as the Vandenberg AFB *Facilities Excellence Standards* (2008). The *Facilities Excellence Standards* are intended to ensure the minimum acceptable results for design and construction projects, and mandate the use of best practices in facility design and construction including protection of the environment.

[1] An addendum to the Vandenberg AFB *Facilities Excellence Standards* will be prepared and will include the Vandenberg AFB developed hydromodification control criteria (see PC-2). Acceptable low-impact development techniques and specifications for Vandenberg AFB will also be referenced upon their future development. During the design review process, 30 CES/CEC and 30 CES/CEAN will have an opportunity to analyze and contribute to the project/design for conformance with the applicable hydromodification exemptions, applicability criteria, performance criteria, and thresholds established in the Hydromodification Management Plan to the maximum extent practicable.

[2] 30 CES/CECC and 30 CES/CECE are responsible for technical adequacy of designs and assuring the designs adhere to the provisions of the *Facilities Excellence Standards*. Once the standards are updated

to include SWMP requirements, future design plans will only be deemed complete by these organizations if applicable post-construction BMP selection, sizing, and siting are consistent with hydromodification exemptions, applicability criteria, performance criteria, and thresholds established in the HMP (see BMP PC-2).

[3] Projects which are (1) Military Construction (MILCON) projects and the Air Force is not the designated Design Agent and Construction Agent, (2) managed by The Simplified Acquisition of Base Engineering Requirements (SABER) program, or (3) managed by the U.S. Army Corps of Engineers (ACOE) undergo separate planning, programming, and design processes; therefore, 30 CES/CEC will revise applicable design publications and processes associated with these projects to include reference to the applicable hydromodification exemptions, applicability criteria, performance criteria, and thresholds established in the HMP.

c Environmental Planning. The Air Force must prepare environmental documentation for all proposed actions in accordance with the National Environmental Policy Act of 1969, as amended, (NEPA). In accordance with 32 CFR Part 989, the primary types of environmental documents prepared are Air Force (AF) Form 813, *Request for Environmental Impact Analysis*, Environmental Assessments, and Environmental Impact Statements. The BCE Work Request, AF Form 332, is also used for environmental impact analysis.

[1] 30 CES/CEAOP, Comprehensive Planning Element, is responsible for coordinating the BCE Work Request, AF Form 813, EA, EIS, and some project designs with the applicable resource sections within 30 CES/CEAN including the Water Resources Section. Based on the potential environmental impacts of a project, 30 CES/CEAOP will determine the level of environmental impact analysis and documentation necessary.

[2] During 30 CES/CEAN reviews of the BCE Work Request, AF Form 813, EA, EIS, and project designs, 30 CES/CEANQ Water Resources Section will review the project and note possible impacts to storm water quality. Based on this review, the 30 CES/CEANQ Water Resources Section will apply specific conditions and requirements to the project prior to its design and construction. Project conditions and requirements related to construction activity may vary; however, all include water quality protection and the incorporation of storm water control measures. It is during the 30 CES/CEAN review of the BCE Work Request, AF Form 813, EA, EIS, and project designs that the 30 CES/CEANQ Water Resources Section will determine whether a project meets the threshold for triggering the requirement for post-

construction storm water controls (see BMP PC-2).

d Project Tracking. Information management systems are used to manage, control, plan, schedule, and program work requirements in the most efficient means.

[1] The Air Force model automated systems are the Interim Work Information Management System (IWIMS) and the Automated Civil Engineer System (ACES), both of which allow the capability of transmitting data to higher headquarters. The automated work control systems contain embedded software/forms to control work requirements. Customer Service (30 CES/CEOSC) is the primary organization responsible for managing IWIMS.

[2] 30 CES/CEC and 30 CES/CEAN will evaluate the current system of project tracking and, where possible, revise tracking measures. If necessary, tracking measures will be revised to allow for the Water Resources Section to be notified in a timely manner to review a project's proposed post-construction storm water management controls.

e Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAOP and 30 CES/CEC (CECC, CECE and CECS), Years 1–5: Coordinate all construction and redevelopment BCE Work Requests, AF Form 813s, EAs and designs with the 30 CES/CEANQ Water Resources Section for review and application of post-construction storm water requirements and controls.

[2] 30 CES/CEC (CECC, CECE and CECS), Years 2–5: Include appropriate post-construction storm water controls into conceptual and final designs produced by 30 CES/CEC and or contractors; ensure applicable *Facilities Excellence Standards* and hydromodification control criteria are adhered to for applicable development or redevelopment projects to the maximum extent practicable.

[3] 30 CES/CEC (CECC, CECE and CECS) and 30 CES/CEAN, Years 2–5: Implement a project tracking system to include basic site information; a checklist to document the inclusion of post-construction storm water controls during all phases of project planning, design, and approval; and a stakeholder checklist to document the timely notification for opportunities to review proposed post-construction storm water management controls.

[4] 30 CES/CEC (CECC, CECE and CECS), Years 2–5: Maintain records of all projects and the post-construction storm water controls implemented.

[5] 30 CES/CEC (CECC CECE and CECS), Year 4: Revise applicable design checklists and Requirements and Management Plans (RAMPs) associated with MILCON, SABER, and ACOE projects to include cross-reference to the applicable hydromodification exemptions, applicability criteria, performance criteria, and thresholds established in the HMP.

2 PC-2, Hydromodification Management Plan.

a The Air Force has established a strategy to develop a watershed-based hydromodification management plan (HMP). The goal of the HMP development process is to determine an economically and scientifically viable and practicable hydromodification management strategy that will provide protection of water resources (e.g., water quality, beneficial uses, biological and physical integrity of watersheds and aquatic habitats) at the base to the maximum extent practicable.

b The process will consider how implementation of different runoff volume and rate control techniques, LID strategies, and riparian buffer zones might impact local stream stability and water quality. The HMP is to achieve the following objectives:

[1] Establish numeric criteria for runoff rate and volume control for development and redevelopment projects.

[2] Establish numeric criteria for stream stability impacts for development and redevelopment projects.

[3] Identify specific applicability criteria and exemptions.

[4] Specify performance and monitoring criteria for installed hydromodification control infrastructure.

[5] Define and provide cross-reference to riparian and wetland buffer zone requirements.

c It is 30 CES intent that implementation of the HMP will (1) maximize infiltration and minimize runoff volume and rate, (2) protect riparian areas with buffer zones, (3) minimize pollutant loading, and (4) provide long-term watershed protection.

d An outline of the preliminary work plan for development of the Vandenberg AFB HMP follows:

[1] Develop Problem Statement and Objectives

[2] Review Literature and Data Availability

- [3] Characterize Watershed and Future Development Patterns
- [4] Determine Preliminary Assessment Methodology
- [5] Establish Interim Hydromodification Control Criteria
- [6] Refine Assessment Methodology
- [7] Adopt/Develop Guidance for Hydromodification Control Selection, Design, Monitoring, Maintenance, and Inspection
- [8] Develop Implementation Strategy

e The following describes each task in detail:

[1] Task 1: Develop Problem Statement and Objectives

[a] Objective: Describe the problem and objectives.

[b] Scope: The storm water management concerns and regulatory background that led to the issuance of the HMP requirements will be summarized and the scope of the hydromodification management objectives will be described. The goals of the HMP and the development process will be presented.

[c] Output: Short technical memorandum.

[2] Task 2: Review Literature and Data Availability

[a] Objective: Summarize pertinent literature and data sources.

[b] Scope: The literature review will identify and summarize relevant technical documents on the following subjects:

1) Watershed characterization data (soils, streams, basins, riparian areas, effective impervious area [EIA], hydrology);

2) Assessment methodologies (hydrologic, water quality, EIA, buffer zones, stream stability); and

3) Hydromodification design guidance.

[c] Output: Technical memorandum and database of references.

[3] Task 3: Characterize Watershed and Future Development Patterns

[a] Objective: Document baseline watershed conditions and future development plans.

[b] Scope: Based upon information identified in Task 2 and supplemented with field surveys, key characteristics of the watershed will be documented in terms of hydrology, hydraulics, geomorphology, and water quality. This may include watershed geology, stream characteristics (e.g., sediment sources, erosion and depositional zones, slope, stream type, discharge magnitude), basin functionality, land use patterns, and general water quality issues. The methods employed for this task will include a review and collation of existing information (e.g., maps, reports, aerial photographs) and brief observational field assessments. Stream segments will be classified into categories such as type, size, water quality, or other criteria and will be mapped using GIS. Anticipated future development areas will be overlaid on this map, and a preliminary assessment of at-risk and exempt stream segments will be performed.

[c] Output: Technical memorandum and GIS database.

[4] Task 4: Determine Preliminary Assessment Methodology

[a] Objective: Evaluate preliminary assessment alternatives and select a method.

[b] Scope: Based upon the findings of Task 2, the Air Force will evaluate simplified methods for assessing the results of urbanization on the watershed and determining the effectiveness of proposed control measures. The evaluation will include assessment methods that are well understood or currently used by storm water professionals. The methods will be compared and the most appropriate method will be selected.

[c] Output: Technical memorandum.

[5] Task 5: Establish Interim Hydromodification Control Criteria

[a] Objective: Develop interim standards for hydromodification management.

[b] Scope: The Air Force will utilize the preliminary assessment method determined in Task 4 to predict impacts of watershed urbanization based upon different levels of hydromodification controls. By the end of Year 1, 30 CES/CEC will have numeric hydromodification control standards that will be provided during planning reviews and incorporated into design contract

specifications for projects beginning design. The Air Force will allow a period of no less than three weeks for Water Board staff to review the proposed criteria. The Air Force will use the following methodology to develop interim flow control and infiltration criteria:

- 1) Identify a range of runoff flow rates for which post-project runoff flow rates and durations shall not exceed pre-project runoff rates and durations, where the increased discharge rates and durations will result in off-site erosion or other significant adverse impacts to beneficial uses. Pre-project refers to the condition immediately prior to the proposed project. The condition includes, but is not limited to, soil type, vegetation, and amount of impervious surface.
- 2) Establish numeric criteria for development projects to maximize infiltration on-site and approximate natural infiltration levels to the maximum extent practicable and to effectively implement applicable low-impact development strategies.
- 3) Identify the projects, including project type, size and location, to which the AFB will apply the interim criteria. The projects to which the AFB will apply the interim criteria will include all those projects that will cause off-site erosion or other significant adverse impacts to beneficial uses.
- 4) Identify methods to be used by project proponents to demonstrate compliance with the interim discharge rate and duration criteria, including continuous simulation of the entire rainfall record.
- 5) Identify methods to be used by project proponents to demonstrate compliance with the interim infiltration criteria, including analysis of site imperviousness.

[c] Output: Technical memorandum.

[6] Task 6: Refine Assessment Methodology

[a] Objective: Refine assessment methodology.

[b] Scope: Building upon the results of the previous tasks, the Air Force will refine the methods for assessing the results of urbanization on the watershed and determining the effectiveness of proposed control measures. This process may include

developing or refining hydrologic models and BMP selection tools. Assessment methods will address the following issues:

- 1) Estimate hydrograph modification (volume, duration, and rate);
- 2) Accommodate a wide range of flow events (e.g., 1- to 10-year return period);
- 3) Evaluate effective impervious area;
- 4) Evaluate downstream effects (stream stability);
- 5) Estimate buffer zone requirements; and
- 6) Estimate water quality impacts.

[c] Output: Technical memorandum.

[7] Task 7: Adopt/Develop Guidance for Hydromodification Control Selection, Design, Monitoring, Maintenance, and Inspection

[a] Objective: Adopt/Develop requirements and guidance to assist 30 CES/CEC and 30 CES/CEO in the selection, design, and maintenance of hydromodification control measures.

[b] Scope: Guidance for selection, design, monitoring, maintenance, and inspection of hydromodification control measures will be developed under this task. Findings from the previous tasks will form the foundation for this portion of the HMP and will ensure that the recommendations included in the HMP will meet the objectives of protecting water resources at Vandenberg AFB to the MEP. The following objectives will be achieved under this task:

- 1) Establish numeric criteria for runoff rate and volume control for development and redevelopment projects;
- 2) Establish numeric criteria for stream stability impacts for development and redevelopment projects;
- 3) Identify specific applicability criteria and exemptions;
- 4) Specify performance and monitoring criteria for installed post-construction storm water control measures; and
- 5) Define and provide cross-reference to riparian and wetland buffer zone requirements.

[c] Control measures may include LID concepts and on-site hydrologic and water quality controls to meet future development conditions.

[d] Output: HMP final document.

[8] Task 8: Develop Implementation Strategy

[a] Objective: Provide an implementation plan.

[b] Scope: Under this task, an implementation plan will be developed to address the roles and responsibilities of the Air Force, design and construction contractors, and others implementing the HMP. Quality assurance/quality control procedures will be performed to evaluate data from inspections, monitoring, and other follow-up activities for use in improving the HMP over time. Additionally, 30 CES/CEAN will develop an education program for applicable Vandenberg AFB organizations regarding HMP concepts and requirements.

[c] Output: Technical memorandum.

f Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN and 30 CES/CEC, Year 1: Implement Tasks 1 through 5 of the HMP work plan with the following output: a brief technical memorandum stating the task and objectives, a literature review and data availability report, a watershed characterization report, and a technical memorandum summarizing the interim requirements and preliminary assessment methodology.

[2] 30 CES/CEAN and 30 CES/CEC, Year 2: Based upon the findings of Tasks 1 through 5, complete Task 6 and refine the assessment methodology.

[3] 30 CES/CEAN and 30 CES/CEC, Year 3: Prepare a final HMP and implementation strategy.

3 PC-3, Inventory, Maintenance, and Inspection of Structural Storm Water BMPs.

a Various structural storm water BMPs currently exist throughout the base are intended to reduce or eliminate storm water pollution and protect downstream water quality. Examples include inlet filtration devices, dry wells, permeable pavers, retention basins, and bioswales. The responsibility for operation and maintenance of structural BMPs will depend on their purpose, location, and site specific constraints (e.g., limited or restricted access) and may be imposed upon other organizations.

b To properly maintain existing and future structural BMPs, 30 CES/CEO, 30 CES/CEC, and 30 CES/CEAN will develop an inventory of these features and will continually update it as necessary. Details related to their size, model, manufacturer, installation date, and maintenance requirements will be documented. The location of structural BMPs will also be noted and will be integrated into the MS4 Map (see BMP ID-2).

c For storm water control assets belonging to an organization other than the 30th Space Wing, the inspection will be the facility manager's responsibility and maintenance will depend on the lease or Support Agreement the 30th Space Wing has with that organization. Post-construction storm water control assets belonging to the 30th Space Wing will be inspected by the facility manager and maintained by 30 CES/CEOHH. The frequency and scope of maintenance will be submitted by the 30 CES/CEC Program Manager to the 30 CES Customer Service Center (30 CES/CEOSC) as a Direct Scheduled Work (DSW) request.

d In the event an illicit discharge or connection is identified during the process of structural BMP inspection/maintenance, 30 CES/CEAN shall be notified immediately. Illicit discharge response procedures and tracking will be followed as described within ID-6.

e Measurable Goals and Tasked Organizations.

[1] 30 CES/CEO, 30 CES/CEC, and 30 CES/CEAN, Years 1–5: Coordinate, develop, and maintain an inventory of structural controls and update annually.

[2] 30 CES/CEAN, Years 2–5: Integrate this inventory into the Vandenberg AFB MS4 map and update annually.

[3] 30 CES/CEO, 30 CES/CEC (CECC/CECE/CECS), and 30 CES/CEAN, Years 2–5: Prepare a protocol for conducting post-construction storm water control inspections. Establish and implement a recurring maintenance schedule for every structural BMP in the Main and South Cantonment area.

[4] 30 CES/CEO, 30 CES/CEC, and 30 CES/CEAN, Years 3 and 5: Provide training for to the 30 CES/CEOHH shop personnel responsible for maintenance of post-construction storm water control measures.

4 PC-4, Design Professionals Training.

a 30 CES/CEC (CECC, CECE, and CECS) design professionals who design and conduct plan reviews for new development and redevelopment projects such as buildings, roads, walkways, athletic fields, and storm water conveyance systems will receive training in the principles of post-construction storm water management and LID. The design, utilization, and application of specific sustainable building and runoff management practices such as pervious pavements, greenways, green roofs, and bioretention cells will be the goals of the training. Applicable 30 CES/CEC staff will be required to attend one training session within the five year permit period.

b Measurable Goals and Tasked Organizations.

[1] 30 CES/CECC, 30 CES/CECE, and 30 CES/CECS. Years 1–5: Identify post-construction storm water control and LID training opportunities for Vandenberg AFB design professionals or Project Managers.

[2] 30 CES/CECC, 30 CES/CECE, and 30 CES/CECS, Years 2–5: Applicable 30 CES/CEC staff (CECC, CECE, and CECS) will attend one post-construction storm water management/LID training session within the five year permit period. All attendance by staff shall be documented.

5 PC-5, Riparian Area and Wetland Protection.

a A key component of the project planning process is to develop constraints to, and opportunities for, development of the base and to identify the most suitable areas available for new uses or reuse. The fact that more than 80 percent of the base is undeveloped provides a tremendous opportunity for continued riparian and wetland protection.

b 30 CES/CECBP has documented natural, cultural, and environmental resource constraints within the Vandenberg AFB General Plan. Constraints are classified as either None, Minimal, Moderate, or Severe. In general, riparian areas and wetlands are considered severe constraints where development is prohibited, except in unique circumstances on a case-by-case basis.

c Using three separate CEANN-sponsored GIS data sets of Vandenberg AFB, 30 CES/CECB and 30 CES/CEANN (Natural Assets Element) will

analyze existing wetlands data sets to determine their validity and potential for establishment of the 30-foot minimum buffer zones. Using the General Plan, 30 CES/CECBP will establish minimum 30-foot buffer zones for riparian areas and for all wetland areas as they are validated. At the time of this analysis, local conditions such as habitat degradation, water quality, and land management practices will be evaluated and more substantial buffer zones applied where necessary to protect riparian areas and wetland areas.

d When 30 CES/CEAN or 30 CES/CECB identifies a riparian or wetlands buffer zone constraint during project review, project siting and design will avoid disturbance of the buffer zone to the maximum extent practicable. 30 CES/CEAN will require biological monitoring to ensure potential impacts to buffer zones are avoided. 30 CES/CEC will include the 30-foot buffer zone requirements in the design review checklist (PC-1).

e Measurable Goals and Tasked Organizations.

[1] 30 CES/CECB, 30 CES/CEANN, Year 2: Analyze existing constraints for their inclusiveness of Vandenberg AFB riparian and wetland areas; if necessary expand existing constraints. Additionally, evaluate local conditions to determine if a buffer zone of 30 feet is adequate or if more substantial buffer zones are needed.

[2] 30 CES/CECBP, Year 2: Based on constraints, establish a minimum 30-foot buffer zone for riparian areas and wetland areas in the General Plan.

[3] 30 CES/CEC, Years 3–5: Incorporate all revised constraints and buffer zones into project designs. Include the 30-foot buffer zone requirements in the design review checklist (PC-1).

6 PC-6, Post-Construction Storm Water Policy.

a 30 CES/CEC will develop a Post-Construction Storm Water Policy to address post-construction runoff from new development and redevelopment projects. The policy shall establish minimum post-construction storm water management requirements and controls to protect water quality, receiving waters, and the watershed. The policy will be developed with the following considerations:

[1] Minimize increases in storm water runoff from any new development or significant redevelopment in order to reduce flooding, siltation and stream bank erosion, and maintain the integrity of stream channels.

[2] Minimize the volume of surface water runoff and discharge rate that flows from any specific site during and following new development and significant redevelopment to achieve the objectives of the HMP.

[3] Reduce storm water runoff rates and volumes, soil erosion, and non-point source pollution, wherever possible, through storm water management controls and to ensure that these management controls are properly maintained and pose no threat to public safety.

b The aforementioned considerations are intended to reduce the impact of storm water on receiving waters. The findings and criteria of the HMP will be utilized to establish a rational and effective policy at Vandenberg AFB. For example, applicable methods of pollution control, such as minimizing and disconnecting impervious surfaces, installation of mechanical or structural storm water treatment devices, use of vegetative treatments (such as bioswales, rain gardens, storm water planters), and protection of native vegetation, may be included in the policy.

c This Storm Water Management Plan is considered 30th Space Wing policy upon its adoption by the ESOH Council. All personnel and contractors must comply with its stated requirements. The policy will be included as an Appendix to this Plan and will be distributed via email and posted on the Vandenberg AFB public website (internet) and the 30 CES/CEAN Portal website (intranet).

d Measurable Goals and Tasked Organizations.

[1] 30 CES/CEC, Year 3: Develop and adopt a Post-Construction Storm Water Policy based on findings within the HMP and to address post-construction runoff from new development and redevelopment projects. Distribute the policy to stakeholders within three months of adoption.

[2] 30 CES/CEC, Years 3–5: Enforce the Post-Construction Storm Water Policy adopted in Year 3 using escalating procedures of enforcement which are consistent with the Legal Authority and Enforcement Policy described in Section 3.e.(4). Track all storm water runoff pollution prevention enforcement actions. Utilize enforcement action statistics to assess BMP, MCM, and program effectiveness.

7 PC-7, Long-term Watershed Protection.

a The Vandenberg AFB General Plan addresses future growth including new development and redevelopment. The General Plan addresses the

major challenges and opportunities facing the Base. Additional documents such as the INRMP also exist for the purpose of long-term planning.

b 30 CES/CEAN will review the General Plan and other pertinent documents to determine whether long-term watershed management efforts are being addressed. Revisions to the applicable documents will be made as necessary over a period of time. Revisions will be made to specifically integrate storm water management measures and water quality objectives into land use planning and development policies. Where feasible, quantifiable measures will be developed to evaluate the Air Force's watershed protection efforts, relative to storm water management, achieve desired watershed conditions.

c Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Year 1-2: Generally characterize the watershed and sub-watersheds. Evaluate the current percent impervious area for the watersheds and subwatersheds and approximate the effective impervious area to establish a baseline and for comparison to the 3% - 10% watershed goal identified by the CCRWQCB.

[2] 30 CES/CEAN, Year 2: Review existing land use policies, General Plan elements, and other watershed related documents and determine whether there is any requiring update to better support long-term watershed protection. If updates are required, define a timeline for each document needing revision.

[3] 30 CES/CEAN, Year 3: Examine opportunities to participate in long-term watershed protection efforts with other agencies and surrounding MS4s.

[4] 30 CES/CEAN, Year 4: Identify quantifiable measures that will indicate whether Air Force long-term watershed protection efforts relative to storm water management are achieving desired watershed conditions.

[5] 30 CES/CEAN, Year 5: Utilize the identified quantifiable measures to evaluate Air Force watershed protection efforts. If results yield negative results, revise applicable strategies, BMPs, and plans accordingly.

8 PC-8, Attachment 4 Design Standards.

a 30 CES/CEC will revise the *Facilities Excellence Standards* and other applicable design guidelines to incorporate the design standards outlined within the Small MS4 General Permit, Attachment 4. The Small MS4

General Permit, Attachment 4 includes applicable provisions for new and re-development to:

- [1] Regulate peak storm water runoff discharges;
- [2] Conserve natural areas;
- [3] Minimize pollutants of concern;
- [4] Protect slopes and channels;
- [5] Provide storm drain stenciling;
- [6] Properly design outdoor storage and trash storage areas;
- [7] Provide proof of ongoing BMP maintenance;
- [8] Design standards for structural/treatment control BMPs; and
- [9] Specific provisions for specific types of priority projects, including 100,000 square foot commercial developments; restaurants; retail gasoline outlets; automotive repair shops; and parking lots.

b Concurrent with the revision of the *Facilities Excellence Standards* and other design guidelines, 30 CES/CEC and 30 CES/CEAN will evaluate site plan and design review practices. Changes to site plan and design review will be made such that all applicable projects adhere to the new design standards.

c Measurable Goals and Tasked Organizations.

[1] 30 CES/CEC, Year 3: Revise the Vandenberg AFB *Facilities Excellence Standards* and other design guidelines include applicable provisions for new development and redevelopment to conserve natural areas; minimize pollutants of concern; protect slopes and channels; provide storm drain stenciling/marker; properly design outdoor storage areas; properly design trash storage areas; provide proof of ongoing BMP maintenance; design standards for structural / treatment control BMPs; and specific provisions for specific types of priority projects.

[2] 30 CES/CEC, Year 3: Incorporate new design standards in single family hillside residential, residential subdivisions of 10 or more units, 100,000 sq. ft. commercial, automotive repair, gasoline sale, and restaurant development that has not been *deemed complete*, and parking lots of 5,000 or more sq. ft. or 25 or more spaces. Develop a mechanism for waivers due to impracticality.

[3] 30 CES/CEC, Year 3: Apply necessary changes to site plan and design review such that all applicable projects adhere to the new design standards.

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Table 6
Post-Construction Storm Water Management BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
PC-1	Project Planning, Programming, Design, and Approval Process	The requirement for post-construction storm water controls will be identified during environmental review of BCE Work Requests, AF Form 813s, EAs and designs. Design contract specifications will address hydromodification control criteria once they are identified by the HMP. Designs will incorporate post-construction storm water control measures as applicable.	1. Coordinate all construction and redevelopment BCE Work Requests, AF Form 813s, EAs and designs with the 30 CES/CEANQ Water Resources Section for review and application of post-construction storm water requirements and controls.	30 CES/CEAOP and 30 CES/CEC (CECC, CECE, CECS)	x	x	x	x	x	1, 2, 3, 4, 5
			2. Include appropriate post-construction storm water controls into conceptual and final designs produced by 30 CES/CEC and or contractors; ensure applicable <i>Facilities Excellence Standards</i> and hydromodification control criteria (interim and final) are adhered to for applicable projects.	30 CES/CEC (CECC, CECE and CECS)		x	x	x	x	
			3. Revise the project tracking system to include basic site information; checklist to document the inclusion of post-construction storm water controls during all phases of project planning, design, and approval; and a stakeholder checklist.	30 CES/CEC (CECC, CECE, CECS) and 30 CES/CEAN		x	x	x	x	

Table 6, Page 1 of 8.

Table 6 (Continued)
Post-Construction Storm Water Management BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
PC-1 (cont)	Project Planning, Programming, Design, and Approval Process		4. Maintain records of all projects and the post-construction storm water controls implemented.	30 CES/CEC (CECC, CECE, CECS)		x	x	x	x	
			5. Revise applicable design checklists and processes to include reference to the applicable hydromodification exemptions, applicability criteria, performance criteria, and thresholds established in the HMP.	30 CES/CEC (CECC, CECE, CECS) and 30 CES/CEAN				x		
PC-2	Hydromodification Management Plan	A watershed-based HMP will be developed and is to describe an economically and scientifically viable and practicable hydromodification management strategy.	1. Implement Tasks 1 through 5 of the HMP work plan and produce a technical memorandum summarizing the findings	30 CES/CEAN and 30 CES/CEC	x					3, 4, 5

Table 6, Page 2 of 8.

Table 6 (Continued)
Post-Construction Storm Water Management BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
PC-2 (cont)	Hydromodification Management Plan		2. Based upon the findings of Tasks 1-5, complete Task 6 and refine the assessment methodology.	30 CES/CEAN and 30 CES/CEC		x				
			3. Prepare a final HMP and implementation strategy.	30 CES/CEAN and 30 CES/CEC			x			
PC-3	Inventory, Maintenance, and Inspection of Structural Storm Water BMPs	Develop an inventory of structural BMPs and update as necessary. Post-construction storm water BMPs belonging to the 30 SW will be maintained by 30 CES/CEOHH; otherwise inspection of storm water control assets will be the facility managers' responsibility and maintenance will depend on the associated lease or Support Agreement.	1. Coordinate, develop, and maintain an inventory of structural controls and update annually.	30 CES/CEO, 30 CES/CEC, and 30 CES/CEAN	x	x	x	x	x	3, 4, 5
			2. Integrate the inventory into the Vandenberg AFB MS4 map and update annually.	30 CES/CEAN		x	x	x	x	
			3. Prepare a protocol for conducting post-construction storm water control inspections. Establish and implement a recurring maintenance schedule for every structural BMP in the Main and South Cantonment areas.	30 CES/CEO, 30 CES/CEAN 30 CES/CEC (CECC/CECE,C ECS)		x	x	x	x	
			4. Provide training for maintenance personnel.	30 CES/CEO 30 CES/CEAN			x		x	

Table 6, Page 3 of 8.

Table 6 (Continued)
Post-Construction Storm Water Management BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
PC-4	Design Professionals Training	Project Managers will receive post-construction storm water management and LID training.	1. Identify post-construction storm water control and LID training opportunities.	30 CES/CECC, 30 CES/CECE and 30 CES/CECS	x	x	x	x	x	2, 3
			2. Attend one post-construction storm water management training session every other year and document attendance.	30 CES/CECC, 30 CES/CECE and 30 CES/CECS		x	x	x	x	
PC-5	Riparian Area and Wetland Protection	Adhere to and evaluate existing riparian area and wetland constraints addressed in the Vandenberg AFB General Plan. Riparian area buffer zones (minimum 30-foot) will be incorporated into the General Plan as a development constraint.	1. Analyze existing constraints for their inclusiveness of riparian and wetland areas; if necessary expand existing constraints. Evaluate local conditions to determine if a buffer zone of 30 feet is adequate.	30 CES/CECB, and 30 CES/CEANN		x				4, 5
			2. Establish a minimum 30-foot buffer zone for riparian areas and wetlands.	30 CES/CECBP		x				
			3. Incorporate all identified constraints and buffer zones into project designs and include the 30-foot buffer zone requirements in the design review checklist.	30 CES/CEC			x	x	x	

Table 6, Page 4 of 8.

Table 6 (Continued)
Post-Construction Storm Water Management BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
PC-6	Post-Construction Storm Water Policy	A Post-Construction Storm Water Policy will be developed to address post-construction runoff from new development and redevelopment projects and establish minimum post-construction storm water management requirements and controls to protect water quality, receiving waters, and the watershed.	1. Develop and adopt a Post-Construction Storm Water Policy to address post-construction runoff from new development and redevelopment projects. Distribute the policy to stakeholders within three months of adoption.	30 CES/CEC			x			2, 3, 4, 5
			2. Enforce the Post-Construction Storm Water Policy adopted in Year 3 using an escalating enforcement strategy. Track all storm water runoff pollution prevention enforcement actions. Utilize enforcement action statistics to assess BMP, MCM, and program effectiveness.	30 CES/CEC			x	x	x	

Table 6, Page 5 of 8.

Table 6 (Continued)
Post-Construction Storm Water Management BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
PC-7	Long-term Watershed Protection	Long-term watershed protection will be addressed by evaluating existing watershed protection planning efforts, adapting/changing efforts if warranted, and developing where feasible quantifiable measures that indicate how Air Force watershed protection efforts relative to storm water management achieve desired watershed conditions.	1. Generally characterize the watershed and sub-watersheds. Evaluate the current percent impervious area for the watersheds and subwatersheds and approximate the effective impervious area to establish a baseline and for comparison to the 3% - 10% watershed goal identified by the CCRWQCB.	30 CES/CEAN	x	x				2, 3, 4, 5
			2. Review existing land use policies, General Plan elements, and other watershed related documents and determine whether there is any requiring update to better support long-term watershed protection. If updates are required, define a timeline for each document needing revision.	30 CES/CEAN		x				
			3. Examine opportunities to participate in long-term watershed protection efforts with other agencies and surrounding MS4s.	30 CES/CEAN			x			

Table 6, Page 6 of 8.

Table 6 (Continued)
Post-Construction Storm Water Management BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
PC-7 (Cont)	Long-term Watershed Protection		4. Identify quantifiable measures that will indicate whether Air Force long-term watershed protection efforts relative to storm water management are achieving desired watershed conditions.				x			
			5. Utilize the identified quantifiable measures to evaluate Air Force watershed protection efforts. If results yield negative results, revise applicable strategies, BMPs, and plans accordingly.					x		
PC-8	Attachment 4, Design Standards	Adhere to the design standards defined within the Small MS4 General Permit, Attachment 4.	1. Revise the <i>Facilities Excellence Standards</i> and other design guidelines in accordance with the design standards defined in the Small MS4 General Permit, Attachment 4.	30 CES/CEC			x		3,4,5	

Table 6, Page 7 of 8.

Table 6 (Continued)
Post-Construction Storm Water Management BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
PC-8 (Cont)	Attachment 4, Design Standards		2. Incorporate new design standards in single family hillside residential, residential subdivisions of 10 or more units, 100,000 sq. ft. commercial, automotive repair, gasoline sale, and restaurant development that has not been deemed complete, and parking lots of 5,000 or more sq. ft. or 25 or more spaces. Develop a mechanism for waivers due to impracticality.	30 CES/CEC			x			
			3. Apply necessary changes to site plan and design review process such that all applicable projects adhere to the new design standards.	30 CES/CEC				x	x	

Table 6, Page 8 of 8.

(6) Pollution Prevention/Good Housekeeping for Municipal Operations (GH). The purpose of this MCM for Pollution Prevention and Good Housekeeping practices is to reduce or eliminate adverse water quality impacts from construction, operations, and maintenance activities by municipal agencies.

(a) Small MS4 General Permit Requirements. The Small MS4 General Permit requires the Air Force to examine activities that occur on Vandenberg AFB and alter actions, if found as a potential pollution source, through proper facility and storm water conveyance system maintenance activities and waste load reduction. At a minimum, the program must educate staff on pollution prevention and minimizing pollutant sources. Provision D.2.f of the Small MS4 General Permit requires the following elements:

1 Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

2 Using training materials that are available from U.S. EPA, the state, or other organizations, the program must include employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet building maintenance, new construction and land disturbances, and storm water system maintenance.

(b) Vandenberg AFB Operations and Maintenance Workflow Process. Requests for work on Vandenberg AFB are classified as maintenance, repair, or construction. BCE Work Requests for maintenance and repair are managed by 30 CES/CEOS (Operations Support) and operated by 30 CES/CEOSC (Customer Support) with the IWIMS. The system accepts BCE Work Requests from contractor and military organizations on base and charges for services based on which organization originates the BCE Work Request. All BCE Work Requests are input into the system and transferred to the appropriate CES organization weekly. The IWIMS organizes maintenance work into two broad categories, Recurring Work Program Requests and Direct Schedule Work Requests, as described in the following subheadings.

1 Recurring Work Program (RWP) Requests. The RWP work is performed on a recurring basis, such as maintenance of heating and air conditioning systems. On occasion, basewide storm drain maintenance may be processed and scheduled through the RWP system, but storm water system work on a smaller scale is generally handled as Direct Scheduled Work Requests, as discussed below. RWP work can be deferred to the next cycle of its expected recurrence if it is not completed by the end of the week in which it was issued. RWP work may require an approved BCE Work Request prior to performing the work if it will require either more than 50 man-hours of time to complete or a statement of work. A list of approving organizations is included with the

BCE Work Request, which is issued by 30 CES/CEOSC. Organizations included in the approval process include:

- a The organization requesting the work;
- b The CES organization that will perform the work;
- c Base Planning (30 CES/CECB); and
- d 30th CES Operations Flight CC and/or Deputy.

2 Direct Schedule Work Requests. DSW requests (also called “job orders”) are for emergency, urgent, and routine work performed in-house that requires little planning and for which materials on-hand may be used. A BCE Work Request is not required. The DSW requests cannot be deferred and remain on an organization’s weekly roster of work requests until they are completed. As above, generally, storm water system work requests are DSW requests.

(c) Air Force (AF) Form 103, the BCE Work Clearance Request, is similar to the BCE Work Request; however, it is specifically used to coordinate any work which may interrupt normal operations. These operations include, but are not necessarily limited to, vehicular traffic flow patterns, communications, the provision of fire and security protections, and any hazardous conditions which may arise as a result, or an operating condition, of the work. This type of request is typically referred to as a “dig permit.” AF Form 103 must be submitted to 30 CES/CEOSC at least 10 days before the start of work.

(d) BBC Housing Maintenance and Repair. BBC maintains and repairs homes and residential areas within the BBC Housing area. Recurring maintenance is performed on an ongoing schedule and work requests may also be submitted by residents. Work is performed based on prioritization (emergency or non-emergency).

(e) Pollution Prevention/Good Housekeeping for Municipal Operations BMPs. The GH BMPs and the related measurable goals which follow are also summarized in Table 7.

1 GH-1, Work Request and Work Clearance Review Process.

- a The BCE Work Request (AF Form 332) and Work Clearance (AF Form 103) process managed by 30 CES/CEO for maintenance, repair, and construction (as described in previous sections) activities is a critical component to storm water pollution prevention at Vandenberg AFB. The BCE Work Request process assures that specific organizations, including 30 CES/CEAN, have an opportunity to review proposed work for impacts to storm water and subsequently condition work activities based on the perceived impacts to storm water. All BCE Work Requests (AF Form 332)

and Work Clearance Requests are coordinated by the 30 CES/CEAOP Comprehensive Planning Element. The 30 CES/CEAOP Comprehensive Planning Element will continue to direct all applicable requests to the 30 CES/CEAN Water Resources Section.

b The Water Resources Section consists of well trained professionals knowledgeable of pertinent state and federal regulations. Water Resources Section staff regularly attend industry and Air Force training symposiums and conferences. The Water Resources Section will continue to review all BCE Work Requests and Work Clearance Requests for potential impacts to storm water quality. BCE Work Requests and Work Clearance Requests posing a threat to storm water quality will be conditioned by 30 CES/CEAN with applicable storm water BMPs.

c Currently, the Water Resources Section utilizes a variety of resources to condition BCE Work Requests and Work Clearance Requests including, but not limited to CASQA manuals, Air Force guides, and a list of standard conditions developed over time. Given the forthcoming changes to storm water management (i.e., design standards, policies, etc) at Vandenberg AFB, the Water Resources Section will prepare a standard set of guidelines for reviewing BCE Work Requests and Work Clearance Requests.

d Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Years 1–5: Review all applicable BCE Work Requests and Work Clearance Requests for impacts to storm water quality and condition based on an activities potential impact to storm water quality.

[2] 30 CES/CEO, Years 1–5: Track the number of completed BCE Work Requests and Work Clearance Requests associated with municipal operations.

[3] 30 CES/CEAN, Years 2: Prepare and implement a standard set of guidelines for reviewing BCE Work Requests and Work Clearance Requests. Review the guidelines annually and revise as necessary.

2 GH-2 Service Contract Provisions.

a 30 CONS/LGCB, 30 CES/CECS and 30 CES/CEOSS oversees the preparation, solicitation, and issuance of contracts for maintenance services throughout the base at Vandenberg AFB. Potentially affected services contracts may include housekeeping, painting grounds maintenance, roofing and paving. Section 01010 of service contracts prepared by 30 CES/CEAN for 30 CES/CECS and 30 CES/CEOSS addresses environmental requirements including storm water pollution prevention. Section 01010 is provided as Appendix 4 to this Annex.

b Annually, prior to contract issuance by 30 CONS/LGCB, 30 CES/CEOSS and 30 CES/CECS will coordinate with 30 CES/CEAN to review Section 01010 of the contract specifications. 30 CES/CEANQ Water Resources Section will review the contract for language prohibiting pollutant discharge and protecting storm water quality. Where necessary, Section 01010 will be updated to include specific language addressing storm water pollution prevention and in some cases shall require specific BMPs related to the activities of a particular service.

c All service contracts will be revised to conform with the Post-Construction Storm Water Policy (see BMP PC-6) as well as the IDDE Policy (see BMP ID-7). Contracts will be reviewed and revised as necessary to contain indemnity provisions expressly obligating contractors to pay for costs of compliance and/or enforcement should violations occur.

d Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Year 1–5: Review Section 01010 service contract specifications for inclusion of storm water requirements and indemnity provisions and update accordingly. Revise service contracts to conform with the Post-Construction Storm Water and IDDE Policies.

[2] 30 CES/CEAN, 30 CES/CEOSS, 30 CES/CECS, Years 3–5: Conduct quality assurance audits for 35 percent of service contracts with storm water pollution prevention specifications during the time services are being performed to determine whether the applicable storm water requirements are being addressed, document findings, and correct any deficiencies. For violations, use an escalating enforcement strategy consistent with the Legal Authority and Enforcement Policy described in Section 3.e.(4).

3 GH-3, Storm Water Pollution Prevention Training for Municipal Operations.

a 30 CES/CEANQ will develop and implement a basic storm water pollution course intended for 30 CES/CEOHH and 30 CES/CEOIU shops. Proper vehicle washing and maintenance, fleet and building maintenance, new construction and land disturbance activities, and MS4 maintenance will be included within the scope of the training. Training will be provided to all shops once annually. All shop staff will be required to attend the storm water pollution prevention training course a minimum of once triennially.

b Various 30 CES shops (e.g., Electrical, Utilities, Horizontal) on base utilize weekly tailgate meetings as an opportunity to discuss safety requirements and provide notification to personnel regarding project requirements. 30 CES/CEAN will identify applicable 30 CES shops for

which to prepare storm water briefs. Standardized briefs (handouts) will be developed for supervisory personnel to incorporate into one tailgate meeting each month of the year. The briefs will describe storm water pollution prevention practices and protocols and describe illicit discharge indicators. Illicit Discharge Detection and Elimination Pocket Guides (see BMP ID-5) will be provided along with the briefs.

c Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Years 3–5: Develop and implement a basic storm water pollution prevention training program and require all 30 CES/CEOHH and 30 CES/CEOIU shop personnel to attend a minimum of once triennially. Track the number of attendees and provide certificates of completion.

[2] 30 CES/CEAN, Year 1: Identify and coordinate with applicable 30 CES shops the incorporation of storm water updates into tailgate meetings.

[3] 30 CES/CEAN and applicable 30 CES shops (identified during Year 1), Years 2–5: Prepare storm water updates and distribute to each shop. Shop supervisory personnel will present storm water updates during one weekly tailgate meeting each month of the year.

4 GH-4 Operations and Maintenance Program

a The Operations and Maintenance (O&M) Program at Vandenberg AFB is a dynamic program which adapts to changing conditions in infrastructure, maintenance requirements, environmental requirements, and funding. The Interim Work Information Management System is utilized to schedule maintenance of applicable Vandenberg AFB facilities such as public roads, bridges, the MS4, etc. 30 CES/CEO will revise its current O&M Program to eliminate contamination of storm water. The following summarizes revisions to the O&M program.

b Municipal Separate Storm Sewer System Maintenance.

[1] Regular maintenance of the MS4 is conducted by 30 CES/CEOHH. 30 CES/CEOHH and 30 CES/CEAN will prepare a list of storm water drainage features (e.g., storm drains, swales, culverts) within the Main and South Cantonment areas and will prioritize maintenance requirements for features based on existing knowledge of performance and operation and from information collected during the illicit discharge inspections (see BMP ID-1). The frequency of scheduled maintenance within IWIMS will be revised to conform to the priorities established by 30 CES/CEAN and 30 CES/CEOHH;

however all high priority features shall be cleaned annually prior to the wet season (October 1).

[2] Critical to successful implementation of the maintenance program is the appropriate management and disposal of accumulated wastes. Cleaning operations will remove as much debris, silt, trash and sediment as possible from the MS4. Waste collected from drainage facilities will be dewatered as necessary prior to disposal. Dewatering sites shall not drain to the MS4 or Waters of the United States.

c Street Sweeping. Street sweeping at Vandenberg AFB specifically targets sediment, heavy metals, debris, oil and grease, pesticides, and fertilizers. 30 CES/CEOHH performs monthly sweeping in parking lots at Vandenberg AFB. Street sweeping of base roadways is conducted daily; the entire base is swept each week. Street sweeping operations will continue at the existing frequency and the following will be documented: (1) number of miles swept, and (2) weight of material disposed of at the landfill. The data collected from street sweeping activities will be utilized to determine the effectiveness of implemented BMPs while also removing pollutants from paved surfaces.

d Dechlorination of Pools and Other Chlorinated Discharges. All discharges of pool water and other chlorinated discharges will be dechlorinated prior to discharging to the storm sewer system. This practice will continue to prevent chlorinated water discharges to the MS4. Additional dissipation devices will also be used to decrease the velocity of water discharged, ultimately preventing localized erosion and potential downstream impacts.

e Landscaping. An outside contractor performs landscape maintenance of areas around the dormitories, front yards of BBC housing units, and common areas. Landscape contract specifications will require that contractors implement storm water pollution prevention procedures for Vandenberg AFB facilities, such as parks, recreational facilities, parking lot landscaping, rights-of-way, and vacant lots. 30 CES/CEAN will develop or acquire a set of landscape maintenance Fact Sheets that detail specific BMP to address potential pollutants from landscape installation and maintenance (pesticides, fertilizers, green waste, trash, and equipment fluids). Topics will also include erosion and sediment control, equipment washing and maintenance, waste management, hazardous materials handling and storage, planting and irrigation techniques, and pollution prevention. The Fact Sheets will be distributed to all landscaping contractors annually.

f Vehicle and Equipment Fueling, Maintenance, and Cleaning.

[1] Municipal vehicle and equipment fueling, maintenance, and cleaning locations are available to base personnel. These facilities will be inventoried and biennially inspected for storm water pollution prevention controls and potential improvements (e.g., overhead coverage, drainage, secondary containment, spill kits). Opportunities for immediate resolution shall be undertaken. Site improvements requiring additional planning will have a work plan developed that shall include the proposed solution, budget necessary to implement the solution, and a suspense date for accomplishing the improvements.

[2] All heavy equipment cleaning activities performed at Vandenberg AFB facilities that discharge to the sanitary sewer system are conducted over a wash rack that is connected to an oil/water separator (OWS). Seven OWSs are utilized at Vandenberg AFB. 30 CES/CEAN is responsible for compliance and proper operation and maintenance of each OWS. All OWSs are inspected weekly with findings documented on an inspection form. Inspection forms track maintenance progress, deficiencies, pollution prevention measures, and sampling activities. The discharge of each OWS is sampled semiannually for total recoverable petroleum hydrocarbons. 30 CES/CEAN will continue to inspect all OWSs weekly and sample semiannually. 30 CES/CEAN will repair an OWS or revise OWS operations if it is deemed an OWS presents a threat to storm water quality.

g Hazardous Material Storage. Hazardous materials on Vandenberg AFB are stored, handled, and managed in strict compliance with applicable federal, California, and Air Force regulations. Information regarding the entire scope of the base's compliance strategy is contained in the Hazardous Waste Management Guide, which is binding on all agencies operating on the installation. Specifically, the Pollution Prevention and Sustainment Section, 30 CES/CEANP, implements very active and robust programs to satisfy regulatory requirements in the following areas:

[1] California Business Response Plans. 30 CES/CEANP strictly complies with the California Business Response Plan program prescribed by the California Health and Safety Code (CH&SC), Division 20, Chapter 6.95, *Hazardous Materials Release Plans and Inventory*, and 40 CFR 370, *Hazardous Chemical Reporting: Community Right-to-Know*. Specifically, a California Business Response Plan or Disclaimer is prepared annually for every facility on the installation. The Business Response Plans include site maps to identify the location of hazardous commodities within the facility. Per CH&SC, Division 20, Chapter 6.95, the Vandenberg AFB Fire Department inspects each facility on the installation at least once every three years to verify the accuracy and completeness of the Business

Response Plan submittal. Per Vandenberg AFB Fire Department policy, any inspection findings must be promptly corrected by the facility owner/operator.

[2] *Hazardous Materials Emergency Response Plan (HMERP)*. 30 CES/CEANP also prepares and regularly updates a HMERP which details policies and procedures for responding to a release of a hazardous commodity that is beyond the capability of site personnel to control, contain, and clean up and which requires the intervention of emergency response elements.

[3] *Spill Prevention, Control and Countermeasures Plan*. In accordance with the Clean Water Act and 40 CFR 112, *Oil Pollution Prevention*, the Environmental Quality Section, 30 CES/CEANQ, prepares and maintains a Spill Prevention, Control and Countermeasures Plan covering those facilities on Vandenberg AFB containing in the aggregate 1,320 gallons or more of oil of any kind. Specifically, this plan details the secondary containment provisions which are implemented to prevent a release of oil from entering the navigable waters of the United States or the waters of California. This plan also prescribes the procedures that must be followed when containment areas are to be drained of precipitation to ensure contaminated water is not released to the environment.

[4] HAZMART. Per AFI 32-7086, Hazardous Materials Management, the base operates a HAZMART through which all hazardous materials used on the base must be obtained. Once a material is procured, it is bar coded and usage is tracked on a monthly basis to prepare the monthly air quality reports required by the Santa Barbara Air Pollution Control District and to prepare the Toxic Chemical Release Inventory (TRI) Report required by the U.S. EPA per 40 CFR 372, *Toxic Chemical Release Reporting: Community Right-to-Know*. Excess hazardous materials are returned to the HAZMART for reuse/reissue. If this is not possible, the hazardous materials are disposed of in accordance with federal RCRA regulations; 22 CCR, Division 4.5, *Environmental Standards for the Management of Hazardous Waste*; and 30 SW Plan 32-7043, *Hazardous Waste Management Plan*.

[5] Hazardous Materials Management Information System (HMMIS). 30 CES/CEANP maintains the HMMIS which provides immediate, very user friendly retrieval relating to the storage of hazardous materials on Vandenberg AFB. This computerized program is comprised of a number of modules including:

[a] The Business Response Plan Module, which includes all 937 Business Response Plans.

[b] The AST/UST Inventory Module which includes an inventory of all active and inactive storage tanks on Vandenberg AFB. Currently, this inventory includes 683 individual data sheets for each tank and pressure vessel on the installation.

[c] Other modules include a Transformer Inventory containing data sheets for 734 pad mounted transformers and the ODS Equipment Inventory containing data sheets for 404 HVAC units. As with the AST/UST module, these modules include a photograph, topographic map, and emergency contact information.

h Road, Sidewalk, Median, Embankment, Street, Facility, and Bridge Maintenance. Storm water BMP fact sheets will be developed or acquired for the road, highway, sidewalk, plaza, median, embankment, street, facility, and bridge maintenance activities. Fact sheets will be distributed to 30 CES/CEOHH and 30 CES/CEOIU annually.

i Measurable Goals and Tasked Organizations.

[1] 30 CES/CEOHH and 30 CES/CEAN, Year 1: Prepare a list of storm water drainage features and prioritize each for inspection and maintenance; revise frequency inspection and maintenance within IWIMS accordingly.

[2] 30 CES/CEOHH, Years 1–5: Clean all high priority drainage features annually prior to the wet season. Use IWIMS to track annual cleaning efforts.

[3] 30 CES/CEOHH, Years 1–5: Maintain monthly street sweeping of parking lots and daily street sweeping of roadways.

[4] 30 CES/CEOHH and 30 CES/CEAN, Years 1–5: Record the number of miles swept and weight of material disposed of at the landfill.

[5] 30 CES/CEO, Years 1–5: Dechlorinate 100% of chlorinated water prior to discharge to the MS4; document these occurrences.

[6] 30 CES/CEAN, Year 2: Develop or acquire a set of Landscaping Fact Sheets.

[7] 30 CES/CEAN, Years 2–5: Distribute landscaping Fact Sheets to all landscaping contractors annually.

[8] 30 CES/CEAN, Years 1–5: Inventory all vehicle and equipment fueling, maintenance, and cleaning locations and inspect for adequate storm water pollution prevention control; continue to inspect all OWSs weekly and sample semiannually. Repair an OWS or revise OWS operations if it is deemed an OWS presents a threat to storm water quality.

[9] 30 CES/CEAN, Years 2–5: Inventory all hazardous material storage areas and inspect annually; document and track the number and type of inspection findings; and assure all deficiencies are rectified; for implementation of pollution prevention measures requiring a work plan, the suspense dates for accomplishing improvements shall be no greater than one year from the initial finding.

[10] 30 CES/CEAN, Years 3–5: Develop or acquire a BMP fact sheet for the City road, highway, sidewalk, median, embankment, street, facility, and bridge maintenance activities and distribute to 30 CES/CEOHH and 30 CES/CEOIU.

5 GH-5, Pest Management Program.

a 30 CES/CEOI implements an *Integrated Pest Management Plan* (PMP) with the overall intent of reducing pesticide use, thereby protecting water quality. Water quality and storm water pollution prevention are addressed within the PMP, such as prohibiting the application of pesticides to Waters of the United States without 30 CES/CEAN approval.

b Pesticide application on Vandenberg AFB is performed by contractors other than that applied at the Marshallia Ranch Golf Course and agricultural lands leased to the Lompoc Federal Correctional Complex. Contractors must hold the appropriate certification or license for the specific type of pesticide they apply, as per the PMP. Prior to applying pesticides anywhere on Vandenberg AFB or its GSUs, approval must be sought with 30 CES/CEOI to ensure the total annual application of pesticide does not exceed limits set by the Armed Forces Pest Management Board.

[1] Pesticide application date, time, product name, amount applied, method of application, location, applicator name, company or organization, certification/license, and weather conditions will be recorded for each occurrence.

[2] All required reporting to the County of Santa Barbara Agricultural Commissioner's office will be conducted by the 30 CES/CEOI and copies of reports maintained by the 30 CES/CEOEC.

[3] All pesticide application will be conducted by a licensed or certified applicator that has received *certification training* as specified in the *DoD Plan for Certification of Pesticide Applicators* and holds a DD Form 1826, *DoD Certificate of Competency* and DD Form 1826-1, *Pesticide Applicator*.

[4] Application will not occur prior to or during a rain event or during high wind conditions.

[5] A Material Safety Data Sheet (MSDS) for each pesticide that is used will be obtained by the applicator and retained. The user will provide a copy of the MSDS for each product to 30 CES/CEAN. 30 CES/CEAN will review all new products proposed for use on base for appropriateness prior to their acquisition.

[6] Pesticides and pesticide containers maintained at Vandenberg AFB will be stored with the appropriate and required secondary containment and overhead coverage. Pesticides and pesticide containers will also be disposed of according to instructions on the label.

c The AFI 32-1053, *Pest Management Program* and DoD Instruction 4150.7, *DoD Pest Management Program* provide guidance for pesticide application on federal installations, which emphasize the use of Integrated Pest Management (IPM) principles. The AFI also requires a triennial review of installation pest management plans. In addition, a basewide *Lands and Grounds Maintenance Management Plan* and a *Marshallia Ranch Golf Course Integrated Pest Management Plan* have been developed and are fully implemented on the base.

d In 1993 the Armed Forces Pest Management Board established a *Measure of Merit* requirement for the Air Force to reduce the amount of pesticide applied annually by 50 percent from the Fiscal Year 1993 baseline in pounds of active ingredient. Vandenberg AFB accomplished this goal and continues to pursue opportunities to further reduce usage.

[1] 30 CES/CEAN will assess past and present usage of pesticides/herbicides. 30 CES/CEAN will determine whether additional goals for annual reduction, beyond what the Armed Forces Pest Management Board has previously established, are necessary. This assessment will evaluate pesticide/herbicide usage in terms of its use for invasive species and for other more discretionary purposes (i.e., facility landscaping).

[2] 30 CES/CEAN will examine previously collected ambient water quality data for the presence of pesticide/herbicides in receiving water bodies. Results of the investigation will help to determine whether

additional goals for annual reduction are necessary. If it's determined a goal is necessary, this SWMP will be revised upon notification to and approval by the CCRWQCB.

e Measurable Goals and Tasked Organizations.

[1] 30 CES/CEOI, Years 1–5: Track total annual application of pesticides as well as application date, time, product name, amount applied, method of application, location, applicator name (company if a vendor), certification, and weather conditions for each occurrence. Ensure the total annual volume of pesticide applied does not exceed limits set by the Armed Forces Pest Management Board.

[2] 30 CES/CEOI, Years 2–5: Document the training and accreditations of applicators.

[3] 30 CES/CEAN, Year 2: Assess past and present usage of pesticides and herbicides and determine whether additional goals for annual reduction are necessary.

[4] 30 CES/CEAN, Year 3: Examine previously collected ambient water quality data for the presence of pesticide/herbicides in receiving water bodies and determine whether additional goals for annual reduction are necessary.

6 GH-6, Waste Disposal and Recycling.

a In compliance with solid waste management requirements and waste reduction goals specified by the California Integrated Waste Management Act of 1989, Assembly Bill 939, and U.S. Air Force policy, an *Integrated Solid Waste Management Plan* (September 2008) was developed for Vandenberg AFB. Through reuse and recycling, the Air Force goal is to divert 40 percent or more of landfill-bound materials annually. Vandenberg Air Force Base recently won the “White House Closing the Circle Award” for having the best waste reduction/pollution prevention program in the entire federal government. Vandenberg AFB public participation is encouraged through a comprehensive outreach program that includes print media, special events, recycling assessments, electronic media, training, and presentations.

b Recyclable materials, such as paper, plastics, glass, aluminum, cardboard, magazines/newspapers/phone books, metals, consumer batteries, toner cartridges, cooking oil/grease, and plastic bags are recycled at Vandenberg AFB. The volume of material recycled is tracked by the solid waste contractor and 30 CES/CEAN using the Solid Waste Quarterly Diversion Metrics.

c Used oil is carefully tracked on Vandenberg AFB to ensure it is properly recycled or disposed. Small volumes of used oil may be stored at facilities, such as the AAFES gas station, 30 LRS facilities, MDC/DRMO, and Auto Hobby Shop, until it is transported to the Consolidated CAP for final disposition. The hazardous waste contractor at the Consolidated CAP is responsible for inspecting the oil and determining whether the used oil is recyclable. Recyclable used oil is shipped to a recycler and non-recyclable oil is shipped to an incineration facility. The Consolidated CAP personnel report the number of gallons recycled.

d All hazardous waste is delivered to and stored at the Consolidated CAP. Detailed manifests are created and retained to document all hazardous wastes collected and their proper disposal in accordance with all federal and state laws.

e Green waste generated at Vandenberg AFB is composted or ground/chipped for reuse. Sources of green waste include BBC Housing yard maintenance and landscaping; base landscaping and tree trimming; and wood waste from construction or demolition activities. Chipped wood is used to cover bare slopes to prevent erosion and for daily cover/trash control at the landfill.

f Trash generated within facilities is disposed of in large outdoor bins by the facility's staff. Trash from the bins, as well as from receptacles within BBC Housing, is collected by the solid waste contractor on a regular basis. Litter is collected and disposed of by grounds maintenance staff and periodically by the "Green Team," a crew of inmates from the Lompoc Federal Correctional Complex that are supervised by 30 CES/CEOHH.

g Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Years 1-5: Continue to track the volume of used oil generated and recycled at Vandenberg AFB.

[2] 30 CES/CEAN, Year 2: Develop a list of facilities that are not equipped with trash receptacles; inspect and document areas without trash receptacles and note those which appear to have a higher incidence of trash accumulation; develop a list of problem areas.

[3] 30 CES/CEAN, Years 3-5: Procure and install trash receptacles in 100% of those locations determined to have a high incidence of trash accumulation.

7 GH-7, Industrial Storm Water General Permit Compliance.

a 30 CES/CEAN is currently responsible for Industrial Storm Water General Permit coverage for six industrial sites on Vandenberg AFB, as

described in Section 3.g.(2). In addition, private contractors, United Launch Alliance and Spaceport Systems International, manage permit coverage for SLC-3, SLC-6 and SLC-8. Pollutants from industrial activities at Vandenberg AFB are effectively controlled in accordance with the permit.

b Inspections will be conducted at all permitted industrial sites annually to determine permit compliance, assess the effectiveness of implemented BMPs, and review on-site paperwork (SWPPP and site inspection forms).

c Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Years 1–5: Annually inspect applicable 30 SW industrial facilities to determine the effectiveness of implemented BMPs and verify that all BMPs listed in the SWPPP are implemented/installed.

8 GH-8, Environmental, Safety, and Occupational Health Compliance Assessment and Management Program.

a The Air Force performs an internal annual Environmental, Safety, and Occupational Health Compliance Assessment and Management Program (ESOH CAMP). HQ-led compliance assessments are conducted every 3 years. As part of the program, the municipal, industrial, and construction storm water programs are audited for compliance with federal, state, and local regulations. Non-compliance findings include:

[1] A “Significant” finding, which requires immediate action to protect human health, safety, the environment.

[2] A “Major” finding, which is noted when a federal, state, or local regulation has been violated.

[3] A “Minor” finding, which is noted when non-compliance with a DoD or Air Force Instruction, Air Force Regulation (AFR), or Policy Document (PD) exists.

b Additional findings may also be documented throughout the assessment including:

[1] “Management Practice,” which is a recommendation in operational activity that will reduce environmental risk and improve environmental management.

[2] “Positive,” which is recognition of an organization or individual who through initiative and hard work has exceeded the requirements to assure compliance.

c Non-compliance findings are formally documented and require “closure.” Findings remain “open” until the proposed corrective action is implemented and the situation remedied.

d Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Years 1–5: Participate in all annual and triennial HQ-led ESOHCAMP audits.

[2] 30 CES/CEAN, Years 1–5: Document all storm water deficiencies/findings, work towards a remedy, and track findings status. Attempt to close all open storm water findings.

9 GH-9, Effectiveness Assessment.

a The AFB will develop an effectiveness assessment strategy during the first full implementation year and submit it as an update to the SWMP with the first annual report. The effectiveness assessment strategy will be used to conduct effectiveness assessments included in the annual reports, starting with the second annual report. Overall, the strategy will describe the actions that will be taken to assess the effectiveness of the SWMP in meeting regulatory requirements and improving water quality and beneficial use conditions. The strategy will specifically address:

[1] Assessment of program effectiveness at complying with permit requirements and achieving measurable goals;

[2] Assessment of program effectiveness at protecting and restoring water quality and beneficial uses;

[3] Identification of quantifiable effectiveness measurements for each BMP, including measurements that link BMP implementation with improvement of water quality and beneficial use conditions;

[4] Emphasis on assessment of BMPs specifically targeting primary pollutants of concern;

[5] Incorporation of an effectiveness assessment process comparable to that outlined in the California Stormwater Quality Association’s (CASQA) *Municipal Stormwater Program Effectiveness Assessment Guide*;

[6] Identification of a range of quantifiable effectiveness measures, appropriate to each BMP, that assess effectiveness at achieving regulatory compliance, meeting measurable goals, changing awareness, changing behavior, and reducing pollutant loads, to be used during annual effectiveness assessments.

[7] Identification of quantifiable effectiveness measurements that collectively assess effectiveness in terms of runoff and receiving water quality, to be used during long-term effectiveness assessments (e.g., every three to five years); and

[8] Identification of the steps required to revise the SWMP and optimize BMP effectiveness when effectiveness assessments identify BMPs or program sub-areas that are ineffective or need improvement.

b Measurable Goals and Tasked Organizations.

[1] 30 CES/CEAN, Years 1: Develop an effectiveness assessment strategy during and submit it as an update to the SWMP.

[2] 30 CES/CEAN, Years 2-5: Utilize the strategy to conduct effectiveness assessments and include results within the annual reports.

Table 7
Pollution Prevention / Good Housekeeping BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
GH-1	BCE Work Request Review Process	The BCE Work Request process assures that specific organizations have an opportunity to review proposed work for impacts to storm water and subsequently impose conditions on, or deny work activities based on the perceived impacts. All BCE Work Requests will be reviewed for impacts to storm water.	1. Review applicable work request for impacts to storm water quality and condition accordingly.	30 CES/CEAN	x	x	x	x	x	4, 5, 6
			2. Track the number of completed BCE Work Requests and Work Clearance Requests associated with municipal operations.	30 CES/CEO	x	x	x	x	x	
			3. Prepare and implement a standard set of guidelines for reviewing BCE Work Requests and Work Clearance Requests. Review annually and revise as necessary.	30 CES/CEAN		x	x	x	x	
GH-2	Service Contract Provisions	Annually, prior to contract issuance by 30 CONS/LGCB, 30 CES/CEOSS and 30 CES/CECS will coordinate with 30 CES/CEAN to review Section 01010 of the contract specifications. The 30 CES/CEANQ Water Resources Section will review the contract for language prohibiting pollutant discharge and protecting storm water quality.	1. Review Section 01010 specifications and update accordingly. Revise to conform with the Post-Construction Storm Water and IDDE Policies.	30 CES/CEAN	x	x	x	x	x	3, 4, 5
			2. Audit 35 percent of service contracts with storm water specifications to assess compliance with storm water requirements, document findings, and correct any deficiencies.	30 CES/CEAN, 30 CES/CECS, and 30 CES/CEOSS			x	x	x	

Table 7, Page 1 of 6.

Table 7 (Continued)
Pollution Prevention / Good Housekeeping BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
GH-3	Storm Water Pollution Prevention Training for Municipal Operations.	Develop and implement a basic storm water pollution prevention training program for municipal operations. Illicit Discharge Detection and Elimination Pocket Guides (see BMP ID-5) will be available for all municipal operations staff.	1. Develop and implement a basic storm water pollution prevention training program and require all 30 CES/CEOHH and 30 CES/CEOIU shop personnel to attend a minimum of once triennially. Track the number of attendees and provide certificates of completion.	30 CES/CEAN			x	x	x	1,2,3
			2. Identify and coordinate with applicable 30 CES shops the incorporation of storm water updates into tailgate meetings.	30 CES/CEAN	x					
			3. Prepare storm water updates and distribute to each shop; shop supervisory personnel will present storm water updates during one weekly tailgate meeting each month of the year.	30 CES/CEAN and applicable 30 CES shops (identified during Year 1)		x	x	x	x	

Table 7, Page 2 of 6.

Table 7 (Continued)
Pollution Prevention / Good Housekeeping BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
GH-4	Operations and Maintenance Program	The Air Force will revise its current Operations and Maintenance Program to eliminate contamination of storm water.	1. Prepare a list of storm water drainage features and prioritize each for inspection and maintenance; revise IWIMS accordingly.	30 CES/CEOHH and 30 CES/CEAN	x					1,2,3,4,5
			2. Clean all high priority drainage features annually prior to the wet season. Use IWIMS to track annual cleaning efforts.	30 CES/CEOHH	x	x	x	x	x	
			3. Maintain monthly street sweeping of parking lots and daily street sweeping of roadways.	30 CES/CEOHH	x	x	x	x	x	
			4. Record the number of miles swept and weight of material disposed of at the landfill.	30 CES/CEOHH and 30 CES/CEAN	x	x	x	x	x	
			5. Dechlorinate 100% of chlorinated water prior to discharge to the MS4; document these occurrences.	30 CES/CEO	x	x	x	x	x	
			6. Develop or acquire a set of Landscaping Fact Sheets.	30 CES/CEAN		x				

Table 7, Page 3 of 6.

Table 7 (Continued)
Pollution Prevention / Good Housekeeping BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
GH-4 (Cont)	Operations and Maintenance Program		7. Distribute landscaping Fact Sheets to all landscaping contractors annually.	30 CES/CEAN		x	x	x	x	
			8. Inventory all vehicle and equipment fueling, maintenance, and cleaning locations and inspect for adequate storm water pollution prevention control; continue to inspect all OWSs weekly and sample semiannually. Repair an OWS or revise OWS operations if it is deemed an OWS presents a threat to storm water quality.	30 CES/CEAN	x	x	x	x	x	
			9. Inventory all hazardous material storage areas and inspect annually; document and track the number and type of inspection findings; and assure all deficiencies are rectified.	30 CES/CEAN	x	x	x	x	x	
			10. Develop or acquire a BMP fact sheet for road, highway, sidewalk, median, embankment, street, facility, and bridge maintenance activities and distribute to 30 CES/CEOHH and 30 CES/CEOIU.				x	x	x	

Table 7, Page 4 of 6.

Table 7 (Continued)
Pollution Prevention / Good Housekeeping BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
GH-5	Pest Management Program	The IPMP is intended to reduce pesticide use and stipulates BMPs to protect water quality and comply with all federal, state, and local regulations, as well as promote integrated pest management principles.	1. Track annual volume of pesticides applied and application details. Ensure the total annual volume of pesticide applied does not exceed limit.	30 CES/CEOI	x	x	x	x	x	1, 3, 5
			2. Document the training and accreditations of applicators.	30 CES/CEOI		x	x	x	x	
			3. Assess past and present usage of pesticides/herbicides and determine if additional goals for annual reduction are necessary.	30 CES/CEAN		x				
			4. Examine previously collected ambient water quality data for the presence of pesticide/herbicides in receiving water bodies and determine if additional goals for annual reduction are necessary.	30 CES/CEAN,			x			
GH-6	Waste Disposal and Recycling	Recyclable or reusable materials are diverted from the landfill, green waste is processed and reused; hazardous waste is carefully tracked and handled/disposed of in accordance with all federal, state, and local laws; and trash is disposed of.	1. Continue to track the volume of used oil generated and recycled.	30 CES/CEAN	x	x	x	x	x	1, 4, 5
			2. Develop a list of facilities not equipped with trash receptacles; inspect areas without trash receptacles and note those that appear to have a higher incidence of trash accumulation; develop a list of problem areas.	30 CES/CEAN		x				

Table 7, Page 5 of 6.

Table 7 (Continued)
Pollution Prevention / Good Housekeeping BMPs

No.	BMP	Description	Measurable Goals	Org.	Year					Outcome Level
					1	2	3	4	5	
GH-6 (Cont)	Waste Disposal and Recycling		3. Procure and install trash receptacles in 100% of locations determined to have a high incidence of trash accumulation.	30 CES/CEAN						
GH-7	Industrial Storm Water General Permit Compliance	Inspections will be conducted at all Air Force–operated permitted industrial sites annually.	1. Annually inspect applicable 30 SW industrial facilities to determine the effectiveness of implemented BMPs and verify that all BMPs listed in the SWPPP are implemented/installed.	30 CES/CEAN	x	x	x	x	x	1, 4, 5
GH-8	ESOHCAMP	The Air Force performs an internal annual ESOHCAMP. HQ-led assessments are conducted every 3 years. As part of the program, the water programs are audited for compliance with federal, state, and local regulations.	1. Participate in all annual and triennial HQ-led ESOHCAMP audits.	30 CES/CEAN	x	x	x	x	x	2, 3, 4, 5
			2. Document all storm water deficiencies/findings, work towards a remedy, and track findings status. Attempt to close all open storm water findings.	30 CES/CEAN	x	x	x	x	x	
GH-9	Effectiveness Assessment	Develop a strategy and implement it throughout the term of the permit. Submit results of the assessment within the permit required Annual Report.	1. Develop a strategy during and submit it as an update to the SWMP.	30 CES/CEAN	x					1,2,3,4,5
			2. Utilize the strategy to conduct effectiveness assessments and include results within the annual reports.	30 CES/CEAN		x	x	x	x	

Table 7, Page 6 of 6.

ATTACHMENT 1 TO BASIC PLAN
ACRONYMS AND DEFINITIONS

303(d) List	2006 CWA Section 303(d) List of Water Quality Limited Segments
AAFES	Army and Air Force Exchange Service
ACES	Automated Civil Engineering System
ACOE	(U.S.) Army Corps of Engineers
AF	Air Force
AFI	Air Force Instruction
AFB	Air Force Base
AFPD	Air Force Policy Directive
AFS	Air Force Station
ASBS	Area of Special Biological Significance
AST	aboveground storage tank
Basin Plan	Water Quality Control Plan
BBC	Balfour Beatty Communities
BMP	best management practice
CAP	Collection Accumulation Point
CASQA	California Stormwater Quality Association
CCR	California Code of Regulations
CCRWQCB	Central Coast Regional Water Quality Control Board
CD	compact disc
CFR	Code of Federal Regulations
CS	Construction Site Storm Water Control MCM
CWA	Clean Water Act
DoD	Department of Defense
DRMO	Defense Reutilization and Marketing Office
DSW	Direct Schedule Work
DTG	Discharge to Grade
EAWG	Environmental Awareness Working Group
EIA	Effective impervious area
EFS	engineering feasibility study
EPA	Environmental Protection Agency
EPP	Environmental Protection Plan
ESOHC	Environment, Safety, and Occupational Health Council
ESOHCAMP	Environmental, Safety, and Occupational Health Compliance Assessment and Management Program
General Plan	Vandenberg AFB General Plan
GIS	Geographic Information System
GH	Pollution Prevention/Good Housekeeping for Municipal Operations

GSU	Geographically Separate Unit
HMERP	Hazardous Materials Emergency Response Plan
HMP	Hydromodification Management Plan
HU	Hydrologic Unit
ID	Illicit Detection Discharge Elimination MCM
IDDE	Illicit Detection Discharge Elimination
ICRP	Industrial Chemical Reutilization Program
IWIMS	Interim Work Information Management Systems
INRMP	Integrated Natural Resources Management Plan
LID	low impact development
LIP	local implementation plan
LRS	Logistics Readiness Squadron
MCM	minimum control measure
MDC	Materials Diversion Center
MEP	maximum extent practicable
MFH	Military Family Housing
MILCON	Military Construction
MS4	Municipal Separate Storm Sewer System
MSDS	Material Safety Data Sheet
NASA	National Aeronautics and Space Administration
NEPA	National Environmental Policy Act
NOI	Notice of Intent
NOT	Notice of Termination
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
NRO	National Reconnaissance Office
OpSec	Operation Security
OS	Optical Site
P2	Pollution Prevention
PC	Post-construction Storm Water Management MCM
PCB	polychlorinated biphenyl
PE	Public Education MCM
PMP	Integrated Pesticide Management Plan
POTW	Publicly Owned Treatment Works
PP	Public Participation MCM
QRP	Qualified Recycling Program

RAMP	Requirements and Management Plans
RCRA	Resource Conservation and Recovery Act
RWP	Recurring Work Program
RWQCB	Regional Water Quality Control Board
SABER	Simplified Acquisition of Base Engineering Requirements
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
SBCAMM	Santa Barbara County Association of MS4 Managers
SIC	Standard Industrial Classification
SLC	Space Launch Complex
SPCC	Spill Prevention, Control and Countermeasures
SSMP	Sanitary Sewer Management Plan
SSO	Sanitary Sewer Overflow
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TMDL	Total Maximum Daily Load
U.S. EPA	United States Environmental Protection Agency
U.S.C.	United States Code
UST	underground storage tanks
VTS	Vandenberg Tracking Station
WDID	Waste Discharge Identification Number
WDR	Waste Discharge Requirement
WMP	Wastewater Management Plan
WQO	Water Quality Order
WWG	Water Working Group
WWPP	Wet Weather Preparedness Plan
30 CES	30th Civil Engineer Squadron
30 CES/CC	30th Civil Engineer Squadron, Commander
30 CES/CEC	30th Civil Engineering Flight
30 CES/CECS	Simplified Acquisition of Base Engineering Requirements (SABER)
30 CES/CECB	GIS/GeoBase Integration
30 CES/CECC	Civil Engineering Contracts
30 CES/CECE	Facilities Excellence
30 CES/CEAC	Capital Asset Management Flight
30 CES/CEOFP	Mechanical/Utilities Infrastructure Support
30 CES/CEOHH	Heavy Repair Element, Horizontal
30 CES/CEOIU	Utility Systems Element
30 CES/CEORS	Civil/Structural/Pavements
30 CES/CEOSS	Service Contracts
30 CES/CEOSC	Customer Service

30 CES/CEANQ	Environmental Quality
30 CES/CEANN	Natural Assets
30 CES/CEAOP	Comprehensive Planning
30 CONS	30th Contracting Squadron
30 CONS/LGC	30th Contracting Squadron, Contracting Officer
30 FSS/FSMPS	30th Force Support Squadron, Personnel Customer Service
30 MDOS/SGOAB	30th Medical Operations Squadron, Bioenvironmental Engineering
30 MSG/CCX	30th Mission Support, Commander's Action Group
30 MSG/CD	30th Mission Support, Group Deputy Commander
30 SCS/SCBR/NG	30th Space Communications Squadron, Information Management Flight
30 SFS/CC	30th Security Forces Squadron, Commander
30 SFS/S3SW	30th Security Forces Squadron, Conservation Law Enforcement
30 SW	30th Space Wing
30 SW/CC	30th Space Wing, Commander
30 SW/JA/JAV	30th Space Wing, Judge Advocate, Environmental Law
30 SW/PA	30th Space Wing, Public Affairs

ATTACHMENT 2 TO BASIC PLAN
GLOSSARY

Terms and definitions used in this plan are intended to be consistent with those defined in 40 CFR Parts 122 through Parts 136, 40 CFR 401 through 471, 40 CFR Part 501, and applicable state statutes (Porter-Cologne Water Quality Control Act), regulations and local ordinances, including Title 23 of the CCR and City of Lompoc Ordinance No. 1376(92). Also included are definitions from AFI 32-7041, *Water Quality Compliance*.

Anti-Degradation Policy. As stated in the Central Coast Basin Water Quality Control Plan, wherever the existing quality of water is better than the quality of water established as objectives, such existing quality shall be maintained.

Basin Plan (Central Coast Basin). Water Quality Control Plan adopted by the RWQCB that establishes plans and policies for protecting beneficial uses of State Waters in the Central Coast Basin.

Beneficial Uses (Present and Potential). Streams, lakes, rivers, and other water bodies have uses to humans and other life. These uses, or beneficial uses, are outlined in the RWQCB Water Quality Control Plan.

Best Management Practices (BMPs). Measures or practices to reduce the amount of pollutants entering surface water, air, land, or groundwater. BMPs can be processes, activities, or physical structures.

Bypass. A pipe or structure that allows direct discharge of untreated or partially treated wastewater into waters of United States, including overflows of lift stations to nearby streams, or oil/water separator overflows to storm sewers.

Categorical Discharger. An industrial activity subject to federal categorical pretreatment standards.

Categorical Effluent Limit. Effluent limit using technology-based discharge standards developed by the U.S. EPA for categories of industries (40 CFR Parts 405 through 471).

Categorical Standards. National categorical pretreatment standards and discharge limitations established for specific industrial activities under 40 CFR Parts 401 through 471.

Class III Landfill. A landfill classified for acceptance of nonhazardous/non-designated solid wastes (CCR, Title 23, Chapter 15, Section 2533).

Constituents of Concern. Waste constituents, reaction products, and hazardous constituents that are reasonably expected to be in, or derived from, waste contained in the waste management unit (CCR, Title 23, Chapter 15, Section 2550.3).

Contamination. An impairment in quality of State Waters by waste, to a degree that creates a hazard to human health through poisoning or through the spread of disease. "Contamination"

includes any equivalent effect resulting from the disposal of waste, whether or not Waters of the State are affected.

Controllable Water Quality Conditions. Those actions or circumstances resulting from human activities that may influence the quality of Waters of the State and that may be reasonably controlled.

Cross-Connection. Interconnecting separate wastewater collection systems, such as industrial wastewater collection systems to domestic or storm sewers, storm water collection systems to domestic or industrial sewers, or domestic wastewater collection systems to storm or industrial sewers.

Delegated State. A state with authority from the U.S. EPA to administer the NPDES program in that state.

Designated or Special Waste. Designated waste is defined in CCR Title 23 as nonhazardous waste which consists of or contains pollutants which, under ambient environmental conditions at the waste management unit, could be released at concentrations in excess of applicable water quality objectives, or could cause degradation of Waters of the State.

Direct Discharge. A discharge directly to Waters of the United States, as opposed to a discharge to a publicly owned treatment works or other treatment system.

Discharge Limit. The maximum pollutant concentration that a discharge permit allows.

Discharge Monitoring Report. Form for reporting self-monitoring data to a state regulatory agency or to the U.S. EPA.

Discharge Permit. A permit that authorizes discharging wastewater or storm water to the Waters of the United States or to a POTW.

Domestic Sewer. A conveyance system for domestic or specified industrial wastewater collection.

Domestic Wastewater. Wastewater that contains human wastes and wastewater from food preparation, laundry, bathing, and similar activities. Domestic wastewater typically includes wastewater from housing units and wastewater from commercial or industrial facilities that is similar to that from housing units.

Exfiltration. Flow out of a sewer to the subsurface.

Generator. Organization/person with oversight or responsibility for a wastewater-generating process.

Hazardous Substance. Means either of the following:

1. For discharge to surface waters, any substance determined to be a hazardous substance pursuant to Section 311(b)(2) of the federal Water Pollution Control Act (33 U.S.C. Section 1251, *et seq.*).
2. For discharge to groundwater, any substance listed as a hazardous waste or hazardous material pursuant to Section 25140 of the Health and Safety Code, without regard to whether the substance is intended to be used, reused, or discarded except that “hazardous substance” does not include any substance excluded from Section 311(b)(2) of the federal Water Pollution Control Act because it is within the scope of Section 311(a)(1) of that act.

Hazardous substance ***does not include*** any of the following:

1. Nontoxic, nonflammable, non-corrosive storm water runoff drained from underground vaults, chambers, or manholes into gutters or storm sewers.
2. Any pesticide which is applied for agricultural purposes or is applied in accordance with a cooperative agreement authorized by Section 2426 of the Health and Safety Code and is not discharged accidentally or for purposes of disposal, the application of which is in compliance with all applicable state and federal laws and regulations.
3. Any discharge to surface water of a quantity less than a reportable quantity as determined by regulations issued pursuant to Section 311(b)(4) of the federal Water Pollution Control Act.
4. Any discharge to land which results, or probably will result, in a discharge to groundwater if the amount of the discharge to land is less than a reportable quantity, as determined by regulations issued pursuant to Section 25140 of the Health and Safety Code. No discharge shall be deemed a discharge of a reportable quantity until regulations set a reportable quantity for the substance discharged.

Hazardous Waste. Includes all Resource Conservation and Recovery Act (RCRA) waste identified in 40 CFR, and non-RCRA waste as defined by CCR Title 22.

Hazardous Waste Management Unit. An area where hazardous waste is placed, or where there is a likelihood of mixing of hazardous waste constituents, including but not limited to: surface impoundment, waste pile, land treatment area, or a waste transfer area.

Holding Tank Waste. Any waste from holding tanks such as vessels, chemical toilets, campers, trailers, and septic tanks.

Impaired Water Body. When water quality does not meet applicable water quality standards.

Industrial User. Any process owner who generates industrial wastewater.

Industrial Waste. In general, industrial wastewater on Vandenberg AFB is defined as nonhazardous process generated wastewater not acceptable for discharge to grade. Non-categorical industrial wastewater that does not meet discharge limits specified in applicable permits or WDRs will be managed in accordance with procedures outlined in the *Integrated Waste Management Plan (IWMP)*.

Interference. The inhibition or disruption of the domestic wastewater treatment processes or operations which causes a discharge violation or prevents use of sewage sludge.

Leachate. Liquid that has passed through or emerged from solid waste and contains soluble, suspended or miscible materials removed from such waste (40 CFR Part 258 Section 257.2).

Lift Station. A wastewater collection system that pumps wastewater from a gravity sewer to a sewer or treatment plant at higher elevation.

Liquid Waste or Semi-Liquid Waste. Waste containing less than 50 percent solids by weight.

Measurable Goals. Must be achieved during the permit term, or within 5 years of designation if designated subsequent to permit adoption, as a means of determining program compliance and accomplishments and as an indicator of potential program effectiveness. Should be definable tasks such as number of outreach presentations to make, number of radio spots to purchase, or percentage of pollutant loading to reduce (Small MS4 General Permit, 2003).

Indirect. Based on the assumption that the use of specific BMPs is indirectly effective in the overall reduction of storm water pollution, and the future protection of water quality.

Direct. Focus primarily on specific discharges to receiving waters.

National Pollutant Discharge Elimination System (NPDES). U.S. EPA program under the Clean Water Act that regulates the discharge of pollutants from point sources into the Waters of the United States. The program also imposes effluent standards and enforces pretreatment requirements under Clean Water Act sections 307, 318, 402, and 405.

National Pollutant Discharge Elimination System (NPDES) Permit. A permit issued pursuant to Section 402 of the federal Water Pollution Control Act (33 U.S.C. Section 1342). A permit allowing discharge to Waters of the United States.

Nonpoint Source. A pollutant source that does not meet the definition of “point source.” Nonpoint source pollution generally results from land runoff, atmospheric deposition, drainage, or seepage.

Outfall. A structure through which treated or untreated storm water or wastewater is discharged.

Pass-through. This occurs when pollutants are sent to a wastewater treatment unit that is not designed to remove them. The pollutant “passes through” the treatment unit and is discharged with the effluent from the treatment unit.

Point Source. Any discernible confined or discrete conveyance from which pollutants are or may be discharged.

Pollution. An alteration of the quality of the Waters of the State by a waste to a degree that unreasonably affects either one of the following:

1. The waters for beneficial uses; and
2. Facilities that serve the beneficial uses.

“Pollution” may include “contamination.”

Porter-Cologne Water Quality Control Act of 1969. Act that established a comprehensive program in California for both regulating water quality and controlling sources of pollution.

Pretreatment. The reduction in the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater to a less harmful state prior to discharge. The reduction or alteration can be obtained by physical, chemical, or biological processes, process changes, or other means, except as prohibited by dilution (40 CFR Part 403.6 [d]).

Pretreatment Standards. Standards established by the Air Force or the City of Lompoc POTW to control pollutants entering the POTW which may pass through or have adverse effects on the treatment process, contaminate sludges, or cause the POTW to exceed NPDES Permit effluent discharge limitations.

Publicly Owned Treatment Works (POTW). A treatment plant belonging to a state, county, regional agency, or municipality that treats domestic wastewater or pretreated industrial wastewater.

Reclaimed Water. “Reclaimed water” or “recycled water” means water which, as a result of treatment of waste, is suitable for a direct beneficial use or controlled use that would not otherwise occur and is therefore considered a valuable resource.

Reportable Quantity. Amount of waste that requires notification to the appropriate regulatory enforcement agencies when released to the environment (40 CFR Part 302).

Report of Waste Discharge (ROWD). A report to be filed with the RWQCB in the event that a waste being discharged or proposed for discharge could affect the quality of Waters of the State.

Sanitary Sewer. A sewer intended to receive primarily domestic sewage and some non-domestic wastewater as permitted by this plan.

State Waters. Any water, surface or underground, including saline waters, within the boundaries of the State of California (CWC Section 13050(e)).

Storm Drain. A conveyance system that carries storm or surface waters and drainage, but excludes sewage and industrial wastes.

Technology-Based Effluent Limit. A discharge standard based on EPA review of common treatment technologies for treating a type of wastewater. Technology-based effluent limits are the same for each type of wastewater, regardless of the location or quality of the receiving water.

Waste. Includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

Waste Discharge Requirements (WDR). A permit issued under the Porter-Cologne Water Quality Control Act that regulates facilities that discharge wastewater. Administered through the RWQCB.

Water Ordinance or Code. A means for a local authority to regulate discharges to the municipal POTW collection system by local permit, discharge limits, or pretreatment requirements.

Water Quality Criteria. The U.S. EPA criteria for maximum in-stream concentrations of specific pollutants.

Water Quality Objectives. Enforceable narrative or quantitative standards for water constituents or characteristics that will assure reasonable protection of beneficial uses. Water quality objectives have been adopted by the state and, when applicable, extend as federal water quality standards.

Water Quality Standards. Maximum in-stream concentrations of specific pollutants adopted by each state based on U.S. EPA's Water Quality Criteria.

Water-Quality Based Effluent Limit. Discharge limit established to ensure that discharge of a particular pollutant will not exceed the water quality standard for that pollutant. Water-Quality Based Effluent Limits are site-specific and pollutant-specific. Unlike technology-based limits, Water-Quality Based Effluent Limits can differ in different locations for the same type of wastewater.

Waters of the United States. Generally, all surface water bodies of the United States, including all rivers, streams, lakes, wetlands, estuaries and territorial seas. See §502(7) of the Clean Water Act and 40 CFR Section 122.2.

Water Treatment Residuals. Solids (sludge) and waste process water such as decant water from sludge dewatering generated at water treatment plants.

Wetland. Areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (generally includes swamps, marshes, bogs, and similar areas) (40 CFR Section 232.2).

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APPENDIX 1 TO BASIC PLAN

WATER QUALITY ORDER 2003-0005-DWQ, WASTE DISCHARGE REQUIREMENTS FOR STORM WATER DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (GENERAL PERMIT) AND GENERAL PERMIT NOTICE OF INTENT FOR VANDENBERG AFB

Appendix 1 is the Small MS4 General Permit, which requires this *Storm Water Management Plan*, and the General Permit Notice of Intent (NOI) for Vandenberg AFB. The Small MS4 General Permit seeks to control and reduce the number of pollutants in storm water runoff discharging from Small MS4s. This General Permit requires “regulated” Small MS4s to eliminate unauthorized non-storm water discharges and develop and implement a Storm Water Management Plan that contains BMPs intended to satisfy the requirements of six predetermined minimum control measures.

The NOI submitted 30 April 2004 deadline is also included. The NOI describes the permitted areas under Vandenberg AFB jurisdiction and the point of contact for program implementation.

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2004 Notice of Intent

State Water Resources Control Board
NOTICE OF INTENT
TO COMPLY WITH THE TERMS OF THE GENERAL PERMIT FOR
STORM WATER DISCHARGES FROM
SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS
(WATER QUALITY ORDER NO. 2003 – 0005 - DWQ)

I. NOI Status

Mark Only One Item	1. <input checked="" type="checkbox"/> New Permittee	2. <input type="checkbox"/> Change of Information WDID #: _____
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II. Agency Information

A. Agency Vandenberg Air Force Base, California			
B. Contact Person Beatrice L. Kephart		C. Title Acting Chief, Environmental Flight	
D. Mailing Address 806 13th Street, Suite 116		E. Address (Line 2)	
F. City Vandenberg Air Force Base	State CA	G. Zip 93437	H. County Santa Barbara County
I. Phone (805) 605-7924	J. FAX (805) 606-6137	K. Email Address beatrice.kephart@vandenberg.af.mil	
L. Operator Type (check one) 1. <input type="checkbox"/> City 2. <input type="checkbox"/> County 3. <input type="checkbox"/> State 4. <input checked="" type="checkbox"/> Federal 5. <input type="checkbox"/> Special District 6. <input type="checkbox"/> Government Combination			

III. Permit Area

Vandenberg Air Force Base Property Boundaries

IV. Boundaries of Coverage (include a site map with the submittal)

Vandenberg Air Force Base will be split into Zones 1, 2, and 3. Three remote Vandenberg Air Force Base facilities will be categorized as Zone 2. Zones were established based on population density, extent of construction activities, extent of industrial activity, runoff potential to water bodies.

*Refer to attached site maps.

V. Billing Information *Exempt from application fee. Refer to cover letter.

A. Agency N/A			
B. Contact Person N/A		C. Title N/A	
D. Mailing Address N/A		E. Address (Line 2) N/A	
F. City N/A	State N/A	G. Zip N/A	H. County N/A
I. Phone N/A	J. FAX N/A	K. Email Address N/A	
Fees are based on the daily population served by the Small MS4. To determine your fee, consult the current fee schedule (California Code of Regulations, Title 23, Division 3, Chapter 9 Article 1), which can be viewed at www.swrcb.ca.gov/stormwtr/municipal.html .			
L. Population <u> N/A </u>			
Fee <u> N/A </u>			
Check(s) should be made payable to the SWRCB and submitted to the appropriate RWQCB.			
SWRCB Tax ID is: 68-0281986			

VI. Discharger Information (check applicable box(es) and complete corresponding information)

1. Applying for Individual General Permit Coverage

2. Applying for a permit with one or more co-permittees

The undersigned agree to work as co-permittees in implementing a complete small MS4 storm water program. The program must comply with the requirements found in Title 40 of the Code of Federal Regulations, parts 122.32. Attach additional sheets if necessary. Each co-permittee must complete an NOI.

Lead Agency	Signature
Agency	Signature
Agency	Signature
Agency	Signature

3. Separate Implementing Entity (SIE)

A. Agency			
B. Contact Person		C. Title	
D. Mailing Address		E. Address (Line 2)	
F. City	State	G. Zip	H. County
I. Phone	J. FAX	K. Email Address	
H. Operator Type (check one) 1. <input type="checkbox"/> City 2. <input type="checkbox"/> County 3. <input type="checkbox"/> State 4. <input type="checkbox"/> Federal 5. <input type="checkbox"/> Special District 6. <input type="checkbox"/> Government Combination			
Minimum Control Measures being implemented by the SIE (check all that apply)			
<input type="checkbox"/> Public Education		<input type="checkbox"/> Public Involvement	
<input type="checkbox"/> Construction		<input type="checkbox"/> Post Construction	
		<input type="checkbox"/> Illicit Discharge/Elimination	
		<input type="checkbox"/> Good Housekeeping	
<p>"I agree to coordinate with the agency identified in Section III of this form and comply with its qualifying storm water program. I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. Additionally, I certify that the provisions of the permit, including the development and implementation of a Storm Water Management Program, will be complied with."</p>			
N. Signature of Official		Date	

VII. Storm Water Management Plan (check box)

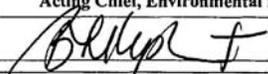
As per section A.2. of this General Permit, the SWMP is attached.

VIII. Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. Additionally, I certify that the provisions of the permit, including the development and implementation of a Storm Water Management Program, will be complied with."

A. Printed Name: Beatrice L. Kephart

B. Title: Acting Chief, Environmental Flight

C. Signature:  D. Date: 4/27/04

FACT SHEET
FOR
STATE WATER RESOURCES CONTROL BOARD (SWRCB)
WATER QUALITY ORDER NO. 2003 – 0005 – DWQ

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT NO. CAS000004

WASTE DISCHARGE REQUIREMENTS (WDRS)
FOR
STORM WATER DISCHARGES FROM
SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (GENERAL PERMIT)

BACKGROUND

In 1972, the federal Water Pollution Control Act (also referred to as the Clean Water Act [CWA]) was amended to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a NPDES permit. The 1987 amendments to CWA added section 402(p), which established a framework for regulating storm water discharges under the NPDES Program. Subsequently, in 1990, the U.S. Environmental Protection Agency (U.S. EPA) promulgated regulations for permitting storm water discharges from industrial sites (including construction sites that disturb five acres or more) and from municipal separate storm sewer systems (MS4s) serving a population of 100,000 people or more. These regulations, known as the Phase I regulations, require operators of medium and large MS4s to obtain storm water permits. On December 8, 1999, U.S. EPA promulgated regulations, known as Phase II, requiring permits for storm water discharges from Small MS4s and from construction sites disturbing between one and five acres of land. This General Permit regulates storm water discharges from Small MS4s.

An “MS4” is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) designed or used for collecting or conveying storm water; (ii) which is not a combined sewer; and (iii) which is not part of a Publicly Owned Treatment Works (POTW). [See Title 40, Code of Federal Regulations (40 CFR) §122.26(b)(8).]

A “Small MS4” is an MS4 that is not permitted under the municipal Phase I regulations, and which is “owned or operated by the United States, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity...” (40 CFR §122.26(b)(16)). Small MS4s *include systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares, but do not include separate storm sewers in*

very discrete areas, such as individual buildings. This permit refers to MS4s that operate throughout a community as “traditional MS4s” and MS4s that are similar to traditional MS4s but operated at a separate campus or facility as “non-traditional MS4s.”

Federal regulations allow two permitting options for storm water discharges (individual permits and general permits). SWRCB elected to adopt a statewide general permit for Small MS4s in order to efficiently regulate numerous storm water discharges under a single permit. In certain situations a storm water discharge may be more appropriately and effectively regulated by an individual permit, a region-specific general permit, or by inclusion in an existing Phase I permit. In these situations, the Regional Water Quality Control Board (RWQCB) Executive Officer will direct the Small MS4 operator to submit the appropriate application, in lieu of a Notice of Intent (NOI) to comply with the terms of this General Permit. In these situations, the individual or regional permits will govern, rather than this General Permit.

NINTH CIRCUIT COURT RULING

On January 14, 2003, the Ninth Circuit Court issued its decision in *Environmental Defense Center v. EPA*. This ruling upheld the Phase II regulations on all but three of the 20 issues contested. In summary, the court determined that applications for general permit coverage (including the NOI and Storm Water Management Program [SWMP]) must be made available to the public, the applications must be reviewed and determined to meet the Maximum Extent Practicable standard by the permitting authority before coverage commences, and there must be a process to accommodate public hearings. This General Permit is consistent with the ruling. Should the ruling be revised or vacated in the future, SWRCB may modify the General Permit.

ENTITIES SUBJECT TO THIS GENERAL PERMIT

This General Permit regulates discharges of storm water from “regulated Small MS4s.” A “regulated Small MS4” is defined as a Small MS4 that discharges to a water of the United States (U.S.) or to another MS4 regulated by an NPDES permit, and which is designated in one of the following ways:

1. Automatically designated by U.S. EPA pursuant to 40 CFR section 122.32(a)(1) because it is located within an urbanized area defined by the Bureau of the Census (see Attachment 1); or
2. Traditional Small MS4s that serve cities, counties, and unincorporated areas that are designated by SWRCB or RWQCB after consideration of the following factors:
 - a. High population density – High population density means an area with greater than 1,000 residents per square mile. Also to be considered in this definition is a high density created by a non-residential population, such as tourists or commuters.
 - b. High growth or growth potential – If an area grew by more than 25 percent between 1990 and 2000, it is a high growth area. If an area anticipates a growth rate of more than 25 percent over a 10-year period ending prior to the end of the first permit term, it has high growth potential.

- c. Significant contributor of pollutants to an interconnected permitted MS4 – A Small MS4 is interconnected with a separately permitted MS4 if storm water that has entered the Small MS4 is allowed to flow directly into a permitted MS4. In general, if the Small MS4 discharges more than 10 percent of its storm water to the permitted MS4, or its discharge makes up more than 10 percent of the other permitted MS4’s total storm water volume, it is a significant contributor of pollutants to the permitted MS4. In specific cases, the MS4s involved or third parties may show that the 10 percent threshold is inappropriate for the MS4 in question.
- d. Discharge to sensitive water bodies – Sensitive water bodies are receiving waters, which are a priority to protect. They include the following:
- those listed as providing or known to provide habitat for threatened or endangered species;
 - those used for recreation that are subject to beach closings or health warnings; or
 - those listed as impaired pursuant to CWA section 303(d) due to constituents of concern in urban runoff (these include biochemical oxygen demand [BOD], sediment, pathogens, petroleum hydrocarbons, heavy metals, floatables, polycyclic aromatic hydrocarbons [PAHs], trash, and other constituents that are found in the MS4 discharge).

Additional criteria to qualify as a sensitive water body may exist and may be determined by SWRCB or RWQCB on a case-by-case basis.

- e. Significant contributor of pollutants to waters of the U.S. – Specific conditions presented by the MS4 may lead to significant pollutant loading to waters of the U.S. that are otherwise unregulated or inadequately regulated. An example of such a condition may be the presence of a large transportation industry.

These factors are to be considered when evaluating whether a Small MS4 should be regulated pursuant to this General Permit. An MS4 and the population that it serves need not meet all of the factors to be designated. SWRCB designates a number of Small MS4s according to these criteria through this General Permit (see Attachment 2).

Non-traditional Small MS4s may also be designated to seek permit coverage. These include non-traditional MS4s that are located within or discharge to a permitted MS4 and those that pose significant water quality threats. In general, these are storm water systems serving public campuses (including universities, community colleges, primary schools, and other publicly owned learning institutions with campuses), military bases, and prison and hospital complexes within or adjacent to other regulated MS4s, or which pose significant water quality threats. SWRCB considered designating non-traditional Small MS4s when adopting this General Permit. However, the *Environmental Defense Center* ruling requires that SWRCB and RWQCBs change their procedures for implementing this General Permit. In compliance with that decision, each

NOI and SWMP must be reviewed and approved, and in some cases considered in a public hearing, prior to the Small MS4 obtaining coverage under the General Permit. Therefore, SWRCB is delaying making these designations and the General Permit does not designate any non-traditional MS4s. A list of non-traditional MS4s that are anticipated to be designated within this permit term is included in Attachment 3 of this General Permit. These or other non-traditional MS4s may be designated by SWRCB or RWQCB at any time subsequent to the adoption of this General Permit.

The criteria selected to designate Small MS4s to be regulated are based on the potential to impact water quality due to conditions influencing discharges into their system or due to where they discharge. Some of the definitions provide “cut-off numbers.” Although there is no regulatory standard that mandates which numbers to use, dividing lines must be established in order to effectively use them as criteria.

Specifically, the high growth factor uses 25 percent growth over ten years. The average growth (based on county data from the Census) in California between 1990 and 2000 was 15.8 percent. The standard deviation was 9.9. Growth rates outside one standard deviation are more than 25.7 percent. The standard deviation is generally an indication of the spread of data. In defining the high growth factor, the standard deviation was used because it sets the limits within which most areas of California fall. County data was used because it was consistently available, whereas 1990 populations for several of the cities and places were not readily available. Additionally, county data gives a broader picture of the growth dynamics in California. Because the data is not normally distributed, 68 percent of the data points do not necessarily fall within one standard deviation of the mean. It does, however, provide a number in which to compare city and place growth rates to the average growth rate of California. The number was rounded to 25 percent for ease of application and with the understanding that it is an approximation.

The significant contributor of pollutants to an interconnected permitted MS4 definition uses a volume value of 10 percent, with the assumption that storm water contains pollutants. This is meant to capture flows that may affect water quality or the permit compliance status of another MS4, but exclude incidental flows between communities.

APPLICATION REQUIREMENTS

Regulated Small MS4s, automatically designated because they are within an urbanized area (Attachment 1), must submit to the appropriate RWQCB by August 8, 2003 a complete application package. A complete package includes an NOI (Attachment 7), a complete SWMP (one hard copy and one electronic copy in Word or PDF format), and an appropriate fee.

The August 8, 2003 deadline is an administrative deadline to comply with the General Permit. Section 122.33(c)(1) of 40 CFR required automatically designated Small MS4s to submit an application by March 10, 2003. Those applications received from Small MS4s that submitted applications to comply with the federal deadline will be considered as an application to meet the requirements of this General Permit. If the application package is deemed complete by the RWQCB staff, it will be posted on the internet and made available for public review and public hearing if requested subsequent to permit adoption.

Regulated Small MS4s that are traditional MS4s designated by the SWRCB or RWQCB must submit to the appropriate RWQCB, within 180 days of notification of designation (or at a later

date stated by SWRCB or RWQCB), an NOI (Attachment 7), a complete SWMP (one hard copy and one electronic copy in Word or PDF format), and an appropriate fee. Those traditional MS4s identified in Attachment 2 of this General Permit are being notified of their designation by SWRCB upon adoption of this General Permit. They must, therefore, submit their NOI and SWMP by October 27, 2003.

Regulated Small MS4s that are non-traditional MS4s designated by SWRCB or RWQCB, including those in Attachment 3, must submit to the appropriate RWQCB, within 180 days of notification of designation (or at a later date stated by SWRCB or RWQCB), an NOI (Attachment 7), a complete SWMP (one hard copy and one electronic copy in Word or PDF format), and an appropriate fee.

Regulated Small MS4s relying entirely on Separate Implementing Entities (SIEs) that are also permitted, to implement their entire storm water programs are not required to submit a SWMP if the SIE being relied on has an approved SWMP. Proof of SWMP approval, such as a copy of the RWQCB letter, must be submitted to the RWQCB by the applying Small MS4, along with the NOI and an appropriate fee.

Regulated Small MS4s that fail to obtain coverage under this General Permit or another NPDES permit for storm water discharges will be in violation of the CWA and the Porter-Cologne Water Quality Control Act.

Receipt of applications deemed complete by RWQCB staff will be acknowledged on SWRCB's website at <http://www.waterboards.ca.gov/stormwtr/index.html> for a minimum of 60 days. When a SWMP is received by an RWQCB, those members of the public that have indicated they would like to receive notice, will receive an email from RWQCB staff that a SWMP has been received. During this 60-day public review period, a member of the public may request a copy of the SWMP and request that a public hearing be held by RWQCB. If a public hearing is requested, the hearing itself will be public noticed for a minimum of 30 days. If no hearing is requested, the RWQCB Executive Officer will notify the regulated MS4 that it has obtained permit coverage only after RWQCB staff has reviewed the SWMP and has determined that the SWMP meets the MEP standard established in this permit.

Attachment 8 lists RWQCB contact information for questions and submittals.

GENERAL PERMIT REQUIREMENTS

Prohibitions

This General Permit effectively prohibits the discharge of materials other than storm water that are not "authorized non-storm water discharges" (see General Permit § D.2.c) or authorized by a separate NPDES permit. This General Permit also incorporates discharge prohibitions contained in Statewide Water Quality Control Plans and Regional Water Quality Control Plans (Basin Plans).

Effluent Limitations

Permittees must implement Best Management Practices (BMPs) that reduce pollutants in storm water runoff to the technology-based standard of Maximum Extent Practicable (MEP) to protect water quality. In accordance with 40 CFR section 122.44(k)(2), the inclusion of BMPs in lieu of numeric effluent limitations is appropriate in storm water permits.

Discharges shall not contain reportable quantities of hazardous substance as established at 40 CFR section 117.3 or 40 CFR section 302.4.

Preparation of SWMP

This General Permit requires regulated Small MS4s to:

1. Develop and implement a SWMP that describes BMPs, measurable goals, and timetables for implementation in the following six program areas (Minimum Control Measures):

Public Education

The Permittee must educate the public in its permitted jurisdiction about the importance of the storm water program and the public's role in the program.

Public Participation

The Permittee must comply with all State and local notice requirements when implementing a public involvement/participation program.

Illicit Discharge Detection and Elimination

The Permittee must adopt and enforce ordinances or take equivalent measures that prohibit illicit discharges. The Permittee must also implement a program to detect illicit discharges.

Construction Site Storm Water Runoff Control

The Permittee must develop a program to control the discharge of pollutants from construction sites greater than or equal to one acre in size within its permitted jurisdiction. The program must include inspections of construction sites and enforcement actions against violators.

Post Construction Storm Water Management

The Permittee must require long-term post-construction BMPs that protect water quality and control runoff flow, to be incorporated into development and significant redevelopment projects. Post-construction programs are most efficient when they stress (i) low impact design; (ii) source controls; and (iii) treatment controls.

For non-traditional MS4s that seek coverage under this Permit, implementation of this

control measure will not require redesign of projects under active construction at the time of designation or for K-12 school or community college facilities that have been submitted to the Department of General Services, Division of the State Architect before adoption of the permit, and which receive final approval from the State Allocation Board or the Public Works Board, as appropriate on or before December 31, 2004. SWMP must, however, specify how the control measure will be implemented within five years of designation.

Pollution Prevention/Good Housekeeping for Municipal Operations

The Permittee must examine its own activities and develop a program to prevent the discharge of pollutants from these activities. At a minimum, the program must educate staff on pollution prevention, and minimize pollutant sources.

2. Reduce its discharge of pollutants to the MEP.
3. Annually report on the progress of SWMP implementation.

Development and Implementation of SWMP

SWMP must describe how pollutants in storm water runoff will be controlled and describe BMPs that address the six Minimum Control Measures. Each BMP must have accompanying measurable goals that will be achieved during the permit term, or within five years of designation if designated subsequent to permit adoption, as a means of determining program compliance and accomplishments and as an indicator of potential program effectiveness. The measurable goals should be definable tasks such as number of outreach presentations to make, number of radio spots to purchase, or percentage of pollutant loading to reduce (other examples of measurable goals can be found on U.S. EPA's web-site at <http://cfpub.epa.gov/npdes/stormwater/measurablegoals/index.cfm>). This approach provides the flexibility to target an MS4's problem areas while working within the existing organization.

It is not anticipated that the SWMP be fully implemented upon submittal with the NOI. It is the intent of this General Permit that SWMPs submitted with the NOI contain sufficient information such that RWQCB staff and interested parties understand the BMPs that will be implemented or will be developed and implemented over the course of the General Permit term or, for Small MS4s designated subsequent to permit adoption, over a five-year period from designation. It is also expected that SWMPs will protect water quality, contain measurable goals and schedules, and assign responsible parties for each BMP. It is anticipated that the SWMP initially submitted may be revised or modified based on review of RWQCB staff or on comments provided by interested parties in accordance with Provisions G and H.19 of the General Permit.

For example, it may be proposed that a storm water logo be developed (or an existing one modified) by the end of the first year; an ordinance prohibiting non-storm water discharges be adopted by the end of the second year; a survey of non-storm water discharges throughout the city be completed by the end of the second year; a brochure targeting the restaurant community regarding proper practices to eliminate non-storm water discharges be developed or obtained by the end of the fourth year; and the brochure be distributed to 25 percent of the restaurants

within the city during health department inspections by the end of the fifth year. (This example mentions only one activity each year. In fact, numerous activities will occur throughout the permit term that ensure that a SWMP addressing all six Minimum Control Measures is implemented by the end of the permit term, or within five years of designation for Small MS4s designated subsequent to adoption of the Permit.)

The main goal of this General Permit is to protect water quality from the impacts of storm water runoff from Small MS4s. The intent is that storm water quality impacts will be considered in all aspects of a municipality's activities and that multiple departments within the municipality will work together to implement storm water BMPs. For instance, the planning department may work with the public works department when considering projects and their potential storm water impacts. Also, the health department can work with public works in a complementary manner to spread a consistent message about illicit discharges.

Many of the activities that a municipality already does can be recognized as a benefit to storm water or can be modified to add a storm water quality twist. A critical element of SWMP development is an assessment of activities already being conducted. For example, many communities already have a household hazardous waste program, which can be assumed to reduce illicit discharges to the MS4. Likewise, they examine potential flooding impacts of new development. This process can be modified to also examine water quality impacts as well as quantity.

Similarly, the Minimum Control Measures emphasize working with the public to prevent pollution during their everyday activities as well as to gain support for program funding. The MS4 has the flexibility to target specific segments of its residential or employee population in ways that are most appropriate for that particular segment. Taken together, the suite of public education approaches an MS4 takes can create a robust multimedia campaign that has a single message, which is threaded throughout the community through implementation of BMPs in the six program areas.

For links to information on how to implement each of the Minimum Control Measures, including sample ordinances that address the respective Minimum Control Measures, please see SWRCB's internet site at <http://www.waterboards.ca.gov/stormwtr/municipal.html>. Additionally, in accordance with 40 CFR section 122.34(d)(2), SWRCB provides U.S. EPA's menu of BMPs to consider when developing a SWMP. This menu is available on U.S. EPA's internet site at http://cfpub1.epa.gov/npdes/stormwater/swphase2.cfm?program_id=6. The menu provides examples of BMPs and associated measurable goals; however, other BMPs and measurable goals may be used.

MEP

MEP is the technology-based standard established by Congress in CWA section 402(p)(3)(B)(iii) that municipal dischargers of storm water must meet. Technology-based standards establish the level of pollutant reductions that dischargers must achieve. MEP is generally a result of emphasizing pollution prevention and source control BMPs as the first lines of defense in

combination with structural and treatment methods where appropriate serving as additional lines of defense. The MEP approach is an ever evolving, flexible, and advancing concept, which considers technical and economic feasibility. As knowledge about controlling urban runoff continues to evolve, so does that which constitutes MEP. The individual and collective activities elucidated in the MS4's SWMP become its proposal for reducing or eliminating pollutants in storm water to the MEP. The way in which MEP is met may vary between communities.

The MEP standard applies to all regulated MS4s, including those in Phase I and Small MS4s regulated by this General Permit. Consistent with U.S. EPA guidance, the MEP standard in California is applied so that a first-round storm water permit requires BMPs that will be expanded or better-tailored in subsequent permits. In choosing BMPs, the major focus is on technical feasibility, but cost, effectiveness, and public acceptance are also relevant. If a Permittee chooses only the most inexpensive BMPs, it is likely that MEP has not been met. If a Permittee employs all applicable BMPs except those that are not technically feasible in the locality, or whose cost exceeds any benefit to be derived, it would meet the MEP standard. MEP requires Permittees to choose effective BMPs, and to reject applicable BMPs only where other effective BMPs will serve the same purpose, the BMPs are not technically feasible, or the cost is prohibitive. (See SWRCB Order WQ 2000-11, <http://www.waterboards.ca.gov/resdec/wqorders/2000/00wqo.html>.)

Generally, in order to meet MEP, communities that have greater water quality impacts must put forth a greater level of effort. Alternatively, for similar water quality conditions, communities should put forth an equivalent level of effort. However, because larger communities have greater resources (both financial resources as well as existing related programs that can help in implementing storm water quality programs), it may appear that they have more robust storm water programs. Additionally, because storm water programs are locally driven and local conditions vary, some BMPs may be more effective in one community than in another. A community that has a high growth rate would derive more benefit on focusing on construction and post-construction programs than on an illicit connection program because illicit connections are more prevalent in older communities.

In accordance with the Ninth Circuit Court ruling, prior to obtaining permit coverage, SWMPs will be evaluated for compliance with the MEP standard by the RWQCB Executive Officer or, if requested, considered for approval in a public hearing conducted by RWQCB.

Many Phase I MS4s have been permitted under storm water regulations for more than ten years and have had that time to develop programs intended to reduce pollutants in their storm water discharge to MEP. It is understood that storm water quality programs and regulations are new to the entities that will be regulated under this General Permit. Therefore, it is anticipated that this General Permit term will serve as a "ramping-up" period and that programs implemented by Phase II communities will not necessarily conform to programs implemented by Phase I communities. Despite this understanding, however, many of the lessons learned and information developed by Phase I communities is available to smaller communities as a guide and may be used by Phase II communities.

Supplemental Provisions for Larger and Fast Growing Regulated Small MS4s

By the expiration date of this General Permit, traditional and non-traditional Small MS4s serving a population of 50,000 people or more, or that are subject to high growth, must require specific design standards as part of their post-construction program (as outlined in Attachment 4 of this General Permit, or a functionally equivalent program that is acceptable to the appropriate RWQCB), and they must comply with water quality standards through implementing better-tailored BMPs in an iterative process. These more stringent requirements are applied to communities that are larger and, therefore, capable of a more extensive storm water program, and to communities that are fast growing, and therefore may have greater impacts on storm water runoff associated with construction and the loss of pervious lands. Studies have found the amount of impervious surface in a community is strongly correlated with the community's water quality. New development and redevelopment result in increased impervious surfaces in a community. The design standards in Attachment 4 focus on mitigating the impacts caused by increased impervious surfaces through establishing minimum BMP requirements that stress (i) low impact design; (ii) source controls; and (iii) treatment controls. The design standards include minimum sizing criteria for treatment controls and establish maintenance requirements.

BMPs that may be used to comply with the design standards can be found in U.S. EPA's Toolbox of BMPs at http://cfpub1.epa.gov/npdes/stormwater/swphase2.cfm?program_id=6. Additionally, some RWQCBs may have lists of approved references and resources.

Small MS4s designated subsequent to permit adoption have five years from designation to achieve compliance with the Supplemental Provisions. Attachment 5 provides a list of communities that SWRCB anticipates being subject to the provisions in Attachment 4.

Receiving Water Limitations

Attachment 4 establishes receiving water limitations that apply to larger and fast-growing regulated Small MS4s that are required to comply with Supplemental Provisions of this General Permit. This permit allows regulated Small MS4s up to five years to fully implement their SWMPs. Therefore, regulated Small MS4s must begin to comply with the receiving water limitations iterative process once their plans are fully implemented. The receiving water limitation language provided in this General Permit is identical to the language established in SWRCB Water Quality Order WQ-99-05 adopted by SWRCB on June 17, 1999. As interpreted in SWRCB Water Quality Order WQ-2001-15, adopted by SWRCB on November 15, 2001, the receiving water limitations in this General Permit do not require strict compliance with water quality standards. SWRCB language requires that SWMPs be designed to achieve compliance with water quality standards over time, through an iterative approach requiring improved BMPs. Upon full implementation of the SWMP, exceedances of water quality standards must be addressed through the iterative process.

Reporting Requirements

The Permittee must track and assess its program to ensure BMP effectiveness and must conform to other monitoring requirements that may be imposed by RWQCB.

The Permittee is required to submit annual reports to the appropriate RWQCB by September 15th of each year (for Small MS4s designated with the adoption of this permit, the first annual report is to be submitted in 2004), or as otherwise required by the RWQCB Executive Officer. Among other things, the Permittee shall evaluate its compliance with permit conditions, evaluate and assess the effectiveness of its BMPs, summarize the results of any monitoring performed, summarize the activities planned for the next reporting cycle, and, if necessary, propose changes to SWMP.

Monitoring

Inspections, as a form of visual monitoring, are important to a storm water program. Inspections of storm water runoff and infrastructure (such as drop inlets, basins, and gutters) can say a lot about the effectiveness and needs of a storm water program. Through inspections, non-storm water discharges can be discovered and subsequently stopped, maintenance needs can be identified, and visual pollutants and erosion problems can be detected. Inspections of facilities are also important for public education and outreach, to ensure proper BMP implementation and maintenance, and to detect non-storm water discharges. Additionally, chemical monitoring can be used to involve the public through citizen monitoring groups, detect pollutants, identify and target pollutants of concern, illustrate water quality improvements and permit compliance, and participate in total maximum daily load (TMDL) development and implementation.

Monitoring environmental indicators through bio-assessments or other less technical methods may also be a key component of a program. Although it may be more challenging, it is also very valuable because it is the “final product,” not just for a storm water program but for the broader environmental health of a community.

More specifically, the objectives of a monitoring program may include:

- Assessing compliance with this General Permit;
- Measuring and improving the effectiveness of SWMP;
- Assessing the chemical, physical, and biological impacts on receiving waters resulting from urban runoff;
- Characterizing storm water discharges;
- Identifying sources of pollutants; and
- Assessing the overall health and evaluating long-term trends in receiving water quality.

While only inspections of construction sites, as part of the Construction Site Storm Water Runoff Control Minimum Control Measure, are specifically required, as elucidated above, other monitoring tasks may be appropriate in a storm water program. Also, the RWQCB can require additional monitoring.

Termination of Coverage

A Permittee may terminate coverage if: a new operator has assumed responsibility for the regulated Small MS4; the Permittee has ceased operation of its MS4; or all discharge of runoff from the Small MS4 has been eliminated. To terminate coverage, the Permittee must submit to RWQCB a written request for permit termination.

Reliance on a SIE

A Permittee may rely on a separate entity to implement one or more of the six Minimum Control Measures, if the separate entity can appropriately and adequately address the storm water issues of the Permittee. To do this, both entities must agree to the arrangement, and the Permittee must comply with the applicable parts of the SIE's program. The arrangement is subject to the approval of the RWQCB Executive Officer.

In accordance with section 122.35(a)(3), the Permittee remains responsible for compliance with its permit obligations if SIE fails to implement the control measure(s) (or component thereof). Therefore, the entities are encouraged to enter into a legally binding agreement to minimize any uncertainty about compliance with the permit.

If the Permittee relies on an SIE to implement all six Minimum Control Measures and SIE also has a storm water permit, the Permittee relying on SIE must still submit an NOI, appropriate fee, proof that SIE's SWMP has been approved by RWQCB or its staff, and certification of the arrangement. However, the Permittee is not required to develop or submit a SWMP or annual reports, unless requested to do so by the RWQCB Executive Officer. The arrangement is subject to the approval of the RWQCB Executive Officer.

School districts present an example of where an SIE arrangement may be appropriate, either by forming an agreement with a city or with an umbrella agency, such as the County Office of Education. Because schools provide a large audience for storm water education, as part of the agreement, the two entities may coordinate an education program. An individual school or a school district may agree to provide a one-hour slot for all the second and fifth grade classes during which the city would bring in its own storm water presentation. Alternatively, the school could agree to teach a lesson in conjunction with an outdoor education science project, which may also incorporate a public involvement component. Additionally, the school and the city or Office of Education may arrange to have the school's maintenance staff attend the other entity's training sessions.

Retention of Records

The Permittee is required to retain records of all monitoring information and copies of all reports required by this General Permit for a period of at least five years from the date generated. This period may be extended by request of SWRCB or RWQCB.

Role of RWQCBs

RWQCBs and their staff will review and decide whether to approve SWMPs and, where requested, conduct public hearings on NOIs and SWMPs. Upon approval, they will notify Permittees that they have obtained permit coverage. They will also oversee implementation and compliance with this General Permit. As appropriate, they will review reports, require modification to SWMPs and other submissions, impose region-specific monitoring requirements, conduct inspections, take enforcement actions against violators of this General Permit, and make additional designations of regulated Small MS4s pursuant to this General Permit. They may also issue individual permits to regulated Small MS4s, and alternative general permits to categories of regulated Small MS4s. Upon issuance of such permits by an RWQCB, this General Permit shall no longer regulate the affected Small MS4s.

The Permittee and RWQCB are encouraged to work together to accomplish the goals of the storm water program. Specifically, they can coordinate the oversight of construction and industrial sites. For example, Permittees are required to implement a construction program. This program must include procedures for construction site inspection and enforcement. Construction sites disturbing an acre of land or more are also subject to inspections by RWQCB under the Statewide General Permit for Discharges of Storm Water Associated with Construction Activity. U.S. EPA intended to provide a structure that requires permitting through the federal CWA while at the same time achieving local oversight of construction projects. A structured plan review process and field enforcement at the local level, which is also required by this General Permit, were cited in the preamble to the Phase II regulations as the most effective components of a construction program.

Similarly, as part of the illicit discharge detection and elimination program, the Permittee may inspect facilities that are permitted by the Statewide General Permit for Discharges of Storm Water Associated with Industrial Activity and subject to RWQCB inspections.

The Small MS4 and RWQCB are encouraged to coordinate efforts and use each of their enforcement tools in the most effective manner. For instance, the Small MS4 may identify a construction site operator that is not in compliance with the local requirements and the Construction General Permit. The Small MS4 may establish a fee for re-inspection if a site is out of compliance. If education efforts and the inspection fee fail to bring the site into compliance, the Small MS4 may contact RWQCB and arrange a dual inspection and start enforcement procedures under the CWA if compliance is not achieved.

Relationship Between the Small MS4 Permit and the General Permit for Discharges of Storm Water Associated with Industrial Activity (Industrial Permit)

Some MS4 operators may also have facilities that are subject to the Industrial Permit. While the intent of both of these permits is to reduce pollutants in storm water, neither permit's requirements totally encompass the other. This General Permit requires that MS4 operators address six Minimum Control Measures, while the Industrial Permit requires the development and implementation of Storm Water Pollution Prevention Plans (SWPPP) for certain "industrial" activities as well as requiring specific visual and chemical monitoring. In the Preamble to the Phase II regulations, U.S. EPA notes that for a combination permit to be acceptable, it must contain all of the requirements for each permit. Further, "when viewed in its entirety, a

combination permit, which by necessity would need to contain all elements of otherwise separate industrial and MS4 permit requirements, and require NOI information for each separate industrial activity, may have few advantages when compared to obtaining separate MS4 and industrial general permit coverage.”

Where the permits do overlap, one program may reference the other. More specifically, the Good Housekeeping for Municipal Operations Minimum Control Measure requires evaluation of municipal operations, some of which may be covered under the Industrial Permit. The development and implementation of SWPPP under the Industrial Permit will likely satisfy the Good Housekeeping requirements for those industrial activities. SWMP may incorporate by reference the appropriate SWPPP.

There may be instances where a non-traditional MS4 has, under the Industrial Permit, obtained coverage for the entire facility (rather than only those areas where industrial activities occur) and has developed a SWPPP that addresses the six Minimum Control Measures required by this General Permit. In these instances, the non-traditional Small MS4 is not required to obtain coverage under this General Permit. The entity should, in such cases, provide to the appropriate RWQCB documentation that its SWPPP addresses the six Minimum Control Measures.

**STATE WATER RESOURCES CONTROL BOARD (SWRCB)
WATER QUALITY ORDER NO. 2003 - 0005 – DWQ**

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT NO. CAS000004**

**WASTE DISCHARGE REQUIREMENTS (WDRs)
FOR
STORM WATER DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM
SEWER SYSTEMS (MS4s) (GENERAL PERMIT)**

SWRCB finds that:

1. Urban runoff is a leading cause of pollution throughout California.
2. Pollutants of concern found in urban runoff include sediments, non-sediment solids, nutrients, pathogens, oxygen-demanding substances, petroleum hydrocarbons, heavy metals, floatables, polycyclic aromatic hydrocarbons (PAHs), trash, and pesticides and herbicides.
3. During urban development, two important changes occur. First, where no urban development has previously occurred, natural vegetated pervious ground cover is converted to impervious surfaces such as paved highways, streets, rooftops, and parking lots. Natural vegetated soil can both absorb rainwater and remove pollutants providing a very effective purification process. Because pavement and concrete can neither absorb water nor remove pollutants, the natural purification characteristics of the land are lost. Second, urban development creates new pollutant sources as human population density increases and brings with it proportionately higher levels of vehicle emissions, vehicle maintenance wastes, municipal sewage, pesticides, household hazardous wastes, pet wastes, trash, etc., which can be washed into the MS4. As a result of these two changes, the runoff leaving a developed urban area may be significantly greater in volume, velocity, and/or pollutant load than pre-development runoff from the same area.
4. A higher percentage of impervious area correlates to a greater pollutant loading, resulting in turbid water, nutrient enrichment, bacterial contamination, organic matter loads, toxic compounds, temperature increases, and increases of trash or debris.
5. Pollutants present in storm water can have damaging effects on both human health and aquatic ecosystems. In addition, the increased flows and volumes of storm water discharged from impervious surfaces resulting from development can significantly impact beneficial uses of aquatic ecosystems due to physical modifications of watercourses, such as bank erosion and widening of channels.

6. When water quality impacts are considered during the planning stages of a project, new development and many redevelopment projects can more efficiently incorporate measures to protect water quality.
7. On December 8, 1999, the U.S. Environmental Protection Agency (EPA) promulgated regulations under authority of the Clean Water Act (CWA) section 402(p)(6). These regulations require SWRCB to issue NPDES storm water permits to operators of small municipal separate storm sewer systems (Small MS4s) that discharge to waters of the U.S.
8. Of the Small MS4s defined by federal regulations, only “regulated Small MS4s” must obtain a permit. Title 40 of the Code of Federal Regulations (40 CFR) section 122.32(a) describes regulated Small MS4s as those traditional Small MS4s located within an urbanized area as determined by the latest Decennial Census by the Bureau of the Census and other Small MS4s that are designated by the permitting authority in accordance with designation criteria in Findings 10 and 11 below. Traditional Small MS4s within urbanized areas (Attachment 1) are automatically designated and are not subject to the designation criteria provided in Finding 10.
9. Section 123.35(b) of 40 CFR requires SWRCB to develop a process, as well as criteria, to designate Small MS4s as regulated Small MS4s.
10. In developing the designation criteria, factors were chosen to include parameters that may affect water quality. The following criteria will be considered in designating Small MS4s operated within a city or county as regulated Small MS4s.
 - a. High population density – High population density means an area with greater than 1,000 residents per square mile. Also to be considered in this definition is a high density created by a non-residential population, such as tourists or commuters.
 - b. High growth or growth potential – If an area grew by more than 25 percent between 1990 and 2000, it is a high growth area. If an area anticipates a growth rate of more than 25 percent over a 10-year period ending prior to the end of the first permit term, it has high growth potential.
 - c. Significant contributor of pollutants to an interconnected permitted MS4 – A Small MS4 is interconnected with a separately permitted MS4 if storm water that has entered the Small MS4 is allowed to flow directly into a permitted MS4. In general, if the Small MS4 discharges more than 10 percent of its storm water to the permitted MS4, or its discharge makes up more than 10 percent of the other permitted MS4’s total storm water volume, it is a significant contributor of pollutants to the permitted MS4. In specific cases, the MS4s involved or third parties may show that the 10 percent threshold is inappropriate for the MS4 in question.
 - d. Discharge to sensitive water bodies – Sensitive water bodies are receiving waters, which are a priority to protect. They include the following:

- those listed as providing or known to provide habitat for threatened or endangered species;
- those used for recreation that are subject to beach closings or health warnings; or
- those listed as impaired pursuant to CWA section 303(d) due to constituents of concern in urban runoff (these include biochemical oxygen demand (BOD), sediment, pathogens, oil and grease, and other constituents that are found in the MS4 discharge).

Additional criteria to qualify as a sensitive water body may exist and may be used by SWRCB or RWQCB on a case-by-case basis.

- e. Significant contributor of pollutants to waters of the United States (U.S.) – Specific conditions presented by the MS4 may lead to significant pollutant loading to waters of the U.S. that are otherwise unregulated or inadequately regulated. An example of such a condition may be the presence of a large transportation industry.

This General Permit serves as notice to those Small MS4s on Attachment 2 that they are designated as regulated Small MS4s by the SWRCB at the time of permit adoption.

11. Section 122.26(b)(16)(iii) of 40 CFR defines systems that are similar to separate storm sewer systems in cities and counties, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares as Small MS4s. In this General Permit these types of Small MS4s are referred to as non-traditional MS4s that may be designated as regulated Small MS4s and required to seek coverage under this General Permit or coverage under a separate permit. Non-traditional MS4s often operate storm sewers that are similar to traditional MS4s operated by cities or counties and discharge the same types of pollutants that are typically associated with urban runoff.
12. This permit does not designate any non-traditional MS4s. SWRCB or RWQCB may designate non-traditional MS4s at any time subsequent to the adoption of this General Permit. Non-traditional MS4s that may be designated at a future date include, but are not limited to, those listed in Attachment 3 of this General Permit.
13. Non-traditional Small MS4 entities that are designated, but whose entire facilities are subject to the NPDES General Permit for the Discharge of Storm Water Associated with Industrial Activities and whose Storm Water Pollution Prevention Plan (SWPPP) addresses all six Minimum Control Measures described in this General Permit, are not required to obtain coverage under this General Permit. Such entities must present documentation to the appropriate RWQCB, showing that they meet the requirements for exclusion from coverage.
14. This General Permit requires regulated Small MS4s (Permittees) to develop a Storm Water Management Program (SWMP) designed to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP) and to protect water quality. Upon approval of SWMP by the Regional Water Quality Control Board (RWQCB) or its Executive Officer,

the Permittees obtain coverage under this General Permit. This General Permit requires implementation of SWMP.

15. SWMP will be available for public review and comment and may be subject to a public hearing if requested prior to approval.
16. Permittees can satisfy the requirements through effective implementation of a SWMP, which must contain Best Management Practices (BMPs) that address six Minimum Control Measures. SWMP must incorporate measurable goals and time schedules of implementation.
17. The MEP standard is an ever-evolving, flexible, and advancing concept, which considers technical and economic feasibility. As knowledge about controlling urban runoff continues to evolve, so does that which constitutes MEP. Reducing the discharge of storm water pollutants to MEP in order to protect beneficial uses requires review and improvement, which includes seeking new opportunities. To do this, the Permittee must conduct and document evaluation and assessment of each relevant element of its program and revise activities, control measures, BMPs, and measurable goals, as necessary to meet MEP.
18. This General Permit includes Supplemental Provisions that apply to traditional and non-traditional Small MS4s serving a population of 50,000 people or more, or that are subject to high growth. These requirements address post-construction requirements and compliance with water quality standards. These Supplemental Provisions are similar to requirements for Medium and Large MS4s (Phase I), and are appropriate because larger Small MS4s are able to have more robust storm water programs and fast-growing Small MS4s may cause greater impacts to water quality.
19. The Receiving Water Limitations language contained in Attachment 4 is identical to the language established in SWRCB Water Quality Order WQ-99-05 adopted by the SWRCB on June 17, 1999. As interpreted in SWRCB Water Quality Order WQ-2001-15, adopted by the SWRCB on November 15, 2001, the receiving water limitations in this General Permit do not require strict compliance with water quality standards, but instead require compliance with water quality standards over time, through an iterative approach requiring improved BMPs.
20. The post-construction requirements, or Design Standards, contained in Attachment 4 are consistent with Order WQ-2000-11 adopted by SWRCB on October 5, 2000.
21. The purpose of the annual performance review is to evaluate (1) SWMP's effectiveness; (2) the implementation of SWMP (3) status of measurable goals; (4) effectiveness of BMPs; and (5) improvement opportunities to achieve MEP.
22. To apply for permit coverage authorizing storm water discharges to surface waters pursuant to this General Permit, the Permittees must submit a complete application package to the appropriate RWQCB. An application package includes a Notice of Intent

(NOI) to comply with the terms of this General Permit, appropriate fee (in accordance with the most recent fee schedule¹), and SWMP. Permittees relying entirely on separately permitted Separate Implementing Entities (SIEs) to implement their entire programs are not required to submit a SWMP if the SIE being relied on has an approved SWMP. Attachment 8 gives contact information for each RWQCB.

23. Upon receipt of a complete permit application, the application will be public noticed for thirty days on SWRCB's website. During the public notice period, a member of the public may request that a public hearing be conducted by RWQCB. If no public hearing is requested, the application may be approved by the RWQCB Executive Officer. Permittees obtain coverage under the General Permit only after the SWMP has been approved.
24. Each Permittee is individually responsible for adoption and enforcement of ordinances and/or policies, implementation of identified control measures/BMPs needed to prevent or reduce pollutants in storm water, and for allocation of funds for the capital, operation and maintenance, and enforcement expenditures necessary to implement and enforce such control measures/BMPs within its jurisdiction. Enforcement actions concerning this General Permit will be pursued only against the individual Permittee responsible for specific violations of this General Permit.
25. In accordance with 40 CFR section 122.28(b)(3), a RWQCB may issue an individual MS4 NPDES Permit to a Permittee otherwise subject to this General Permit, or adopt an alternative general permit that covers storm water discharges regulated by this General Permit. The applicability of this General Permit is automatically terminated on the effective date of the individual permit or the date of approval for coverage under the alternative general permit.
26. Certain BMPs implemented or required by Permittees for urban runoff management may create a habitat for vectors (e.g., mosquitoes and rodents) if not properly designed or maintained. Close collaboration and cooperative effort between the Permittees, local vector control agencies, RWQCB staff, and the State Department of Health Services is necessary to identify and implement appropriate vector control measures that minimize potential nuisances and public health impacts resulting from vector breeding.
27. This General Permit may be reopened and modified if the decision in *Environmental Defense Center v. EPA* is revised or vacated.
28. This NPDES Permit is consistent with the antidegradation policies of 40 CFR section 131.12, SWRCB Resolution 68-16, and RWQCBs' individual Basin Plans. Implementing storm water quality programs that address the six Minimum Control Measures in previously unregulated areas will decrease the pollutant loading to the receiving waters and improve water quality.

¹ California Code of Regulations. Title 23. Division 3. Chapter 9 Waste Discharge Reports and Requirements. Article 1 Fees.

29. Following public notice in accordance with State and federal laws and regulations, SWRCB, in public hearings on December 2, 2002 and April 30, 2003, heard and considered all comments. SWRCB has prepared written responses to all significant comments.
30. This action to adopt an NPDES Permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code § 21100, et seq.) in accordance with section 13389 of the Porter-Cologne Water Quality Control Act (Porter-Cologne) (Division 7 of the California Water Code).
31. This NPDES Permit is in compliance with Part 402 of CWA and shall take effect 100 days after adoption by SWRCB. Once in effect, RWQCBs shall enforce the provisions herein.

IT IS HEREBY ORDERED that operators of Small MS4s subject to this General Permit shall comply with the following:

A. APPLICATION REQUIREMENTS

1. Deadlines for Application

- a. By August 8, 2003, all Permittees automatically designated (see Attachment 1) must either apply for coverage under this General Permit (either individually or as a co-permittee), submit an application for an individual or alternative general Small MS4 permit (if applicable), or submit a joint application for modification of an existing large or medium MS4 permit (40 CFR §122.33(c)(1)).

Permittees that submitted complete application packages prior to the adoption of this General Permit to meet the federal regulation March 10, 2003 deadline have complied with this requirement and are not required to submit a duplicate application package.

- b. By October 27, 2003, traditional Small MS4s designated according to Finding 10 (see Attachment 2), must either apply for coverage under this General Permit (either individually or as a co-permittee), submit an application for an individual or alternative general Small MS4 permit, or submit a joint application for modification of an existing large or medium MS4 permit (40 CFR §122.33(c)(2)). Written notices will be sent to designated parties subsequent to adoption of this General Permit.
- c. Non-traditional Small MS4s, or other Small MS4s, which are designated by RWQCB or SWRCB after adoption of this General Permit must apply for coverage under this General Permit (either individually or as a co-

permittee), submit a complete application for an individual or alternative general Small MS4 permit, or submit a joint application for modification of an existing large or medium MS4 permit (40 CFR §122.33(c)(2)). Applications must be submitted within 180 days of designation unless a later date is provided in the designation letter.

2. General Permit Application

To obtain coverage under this General Permit, submit to the appropriate RWQCB a completed NOI (Attachment 7), a complete SWMP (one hard copy and one electronic copy in Word or PDF format), and appropriate fee. SWMP shall meet all the requirements of Section D of this General Permit. Permittees relying entirely on SIEs pursuant to Provision D.6 and permitted under the NPDES program are not required to submit a SWMP.

3. General Permit Coverage

Permit coverage will be in effect upon the completion of the following:

- a. The Permittee has submitted a complete permit application to the appropriate RWQCB,
- b. Receipt of a complete application is noticed for a minimum of 60 days and copies provided to the public for review and comment upon request,
- c. The proposed SWMP has been reviewed by RWQCB staff, and
- d. SWMP has been approved by the RWQCB Executive Officer, or approved by RWQCB in a public hearing, if requested.

B. DISCHARGE PROHIBITIONS

1. Discharges of waste that are prohibited by Statewide Water Quality Control Plans or applicable Regional Water Quality Control Plans (Basin Plans) are prohibited.
2. Discharges from the MS4s regulated under this General Permit that cause or threaten to cause nuisance are prohibited.
3. Discharges of material other than storm water to waters of the U.S. or another permitted MS4 must be effectively prohibited, except as allowed under Provision D.2.c, or as otherwise authorized by a separate NPDES permit.

C. EFFLUENT LIMITATIONS

1. Permittees must implement BMPs that reduce pollutants in storm water to the technology-based standard of MEP.
2. Storm water discharges regulated by this General Permit shall not contain a hazardous substance in amounts equal to or in excess of a reportable quantity listed in 40 CFR Part 117 or 40 CFR Part 302.

D. STORM WATER MANAGEMENT PROGRAM REQUIREMENTS

The Permittee shall maintain, implement, and enforce an effective SWMP, and develop adequate legal authority to implement and enforce the SWMP, designed to reduce the discharge of pollutants from the permitted MS4 to MEP and to protect water quality. SWMP shall serve as the framework for identification, assignment, and implementation of control measures/BMPs. The Permittee shall implement SWMP and shall subsequently demonstrate its effectiveness and provide for necessary and appropriate revisions, modifications, and improvements to reduce pollutants in storm water discharges to the MEP. SWMP shall be fully implemented by the expiration of this General Permit, or within five years of designation for Small MS4s designated subsequent to Permit adoption, with reasonable progress made towards implementation throughout the term of the General Permit. Existing programs that have storm water quality benefits can be identified in the SWMP and be a part of a Permittee's storm water program.

SWMP shall be revised to incorporate any new or modified BMPs or measurable goals developed through the Permittee's annual reporting process. The Permittee shall incorporate changes required by or acceptable to the RWQCB Executive Officer into applicable annual revisions to SWMP and adhere to its implementation.

1. The Permittee shall maintain, implement, and enforce an effective SWMP designed to reduce the discharge of pollutants from the regulated Small MS4 to the MEP and to protect water quality.
2. SWMP must describe BMPs, and associated measurable goals, that will fulfill the requirements of the following six Minimum Control Measures.
 - a. **Public Education and Outreach on Storm Water Impacts**
The Permittee must implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff. For non-traditional Permittees, the employee/user population may serve as "the public" to target for outreach and involvement.

Non-traditional Small MS4s that discharge into medium and large MS4 may integrate public education and outreach program with the existing MS4 public education and outreach programs.

b. **Public Involvement/Participation**

The Permittee must at a minimum comply with State and local public notice requirements when implementing a public involvement/participation program.

c. **Illicit Discharge Detection and Elimination**

The Permittee must:

- 1) Develop, implement, and enforce a program to detect and eliminate illicit discharges (as defined at 40 CFR §122.26(b)(2)) into the regulated Small MS4;
- 2) Develop, if not already completed, a storm sewer system map, showing the location of all outfalls and the names and locations of all waters of the U.S. that receive discharges from those outfalls;
- 3) To the extent allowable under State or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into the MS4 and implement appropriate enforcement procedures and actions;
- 4) Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to the system that are not authorized by a separate NPDES permit;
- 5) Inform public employees, businesses, and the general public of the hazards that are generally associated with illegal discharges and improper disposal of waste; and
- 6) Address the following categories of non-storm water discharges or flows (i.e., authorized non-storm water discharges) only where they are identified as significant contributors of pollutants to the Small MS4:

1. water line flushing;
2. landscape irrigation;
3. diverted stream flows;
4. rising ground waters;
5. uncontaminated ground water infiltration (as defined at 40 CFR §35.2005(20)) to separate storm sewers;
6. uncontaminated pumped ground water;
7. discharges from potable water sources;
8. foundation drains;
9. air conditioning condensation;
10. irrigation water;
11. springs;
12. water from crawl space pumps;
13. footing drains;
14. lawn watering;
15. individual residential car washing;
16. flows from riparian habitats and wetlands; and
17. dechlorinated swimming pool discharges.

Discharges or flows from fire fighting activities are excluded from the effective prohibition against non-storm water and need only be addressed where they are identified as significant sources of pollutants to waters of the U.S.

If a RWQCB Executive Officer determines that any individual or class of non-storm water discharge(s) listed above may be a significant source of pollutants to waters of the U.S. or physically interconnected MS4, or poses a threat to water quality standards (beneficial uses), the RWQCB Executive Officer may require the appropriate Permittee(s) to monitor and submit a report and to implement BMPs on the discharge.

d. **Construction Site Storm Water Runoff Control**

The Permittee must develop, implement, and enforce a program to reduce pollutants in any storm water runoff to the Small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of storm water discharges from construction activity disturbing less than one acre must be included in your program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. The program must include the development and implementation of, at a minimum:

- 1) An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions, or other effective mechanisms, to ensure compliance, to the extent allowable under State, or local law;

- 2) Requirements for construction site operators to implement appropriate erosion and sediment control BMPs;
- 3) Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;
- 4) Procedures for site plan review which incorporate consideration of potential water quality impacts;
- 5) Procedures for receipt and consideration of information submitted by the public; and
- 6) Procedures for site inspection and enforcement of control measures.

e. **Post-Construction Storm Water Management in New Development and Redevelopment**

The Permittee must:

- 1) Develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the Small MS4 by ensuring that controls are in place that would prevent or minimize water quality impacts;
- 2) Develop and implement strategies, which include a combination of structural and/or non-structural BMPs appropriate for your community;
- 3) Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State or local law. For those Small MS4s described in Supplemental Provision E below, the requirements must at least include the design standards contained in Attachment 4 of this General Permit or a functionally equivalent program that is acceptable to the appropriate RWQCB; and
- 4) Ensure adequate long-term operation and maintenance of BMPs.

The General Permit does not require redesign of K-12 school or community college facilities that have been submitted to the Department of General Services, Division of the State Architect before adoption of the permit, and which receive final approval from the State Allocation Board or the Public Works Board, as appropriate, on or before December 31, 2004.

f. **Pollution Prevention/Good Housekeeping for Municipal Operations**

The Permittee must:

- 1) Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations; and
 - 2) Using training materials that are available from U.S. EPA, the State, or other organizations, the program must include employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet building maintenance, new construction and land disturbances, and storm water system maintenance.
3. SWMP must identify the measurable goals for each of the BMPs, including, as appropriate, the months and years for scheduled actions, including interim milestones and the frequency of the action.
 4. SWMP must identify the person or persons who will implement or coordinate SWMP, as well as each Minimum Control Measure.
 5. Termination of coverage

A Permittee may terminate coverage if a new operator has assumed responsibility for the MS4, the Permittee has ceased operation of the MS4, or the Permittees has eliminated discharges from the MS4. To terminate coverage, the Permittee must submit a written request to the RWQCB.

6. Reliance on a SIE

The Permittee may rely on a SIE to satisfy one or more of the permit obligations, if the separate entity can appropriately and adequately address the storm water issues of the Permittee. The Permittee must describe the arrangement in the SWMP and the arrangement is subject to the approval of the RWQCB Executive Officer. The other entity must agree to implement the control measure(s), or components thereof, to achieve compliance with the General Permit. The Permittee remains responsible for compliance with this General Permit if the SIE fails to implement the control measure(s).

If the Permittee relies on an SIE to implement all six Minimum Control Measures and the SIE also has a storm water permit issued by SWRCB or RWQCB, the Permittee relying on the SIE must still submit an NOI, appropriate fee, and certification of the arrangement. The Permittee must note this fact in the NOI and provide proof that the SIE has an approved SWMP, but is not required to maintain a SWMP nor submit annual reports.

7. Outfalls not identified in the storm sewer system map required by Provision D.2.c.2), but constructed within the permitted area during the term of this General Permit to receiving waters identified in the NOI, shall not be considered a material change in character, location, or volume of the permitted discharge, and shall be allowed under the terms of this General Permit without permit application or permit modification, provided that the following information be provided in the subsequent annual report:
 - a. Receiving water name;
 - b. Storm sewer system map of added area;
 - c. Certification that SWMP shall be amended to include the drainage area.

E. SUPPLEMENTAL PROVISIONS

Those regulated traditional and non-traditional Small MS4s serving a population over 50,000 or that are subject to high growth (at least 25 percent over ten years) must comply with the requirements in Attachment 4 of this General Permit. Compliance is required upon full implementation of the Small MS4s' storm water management plan.

Attachment 5 provides a list of communities that SWRCB anticipates being subject to the provisions in Attachment 4.

F. REPORTING REQUIREMENTS AND MONITORING

1. Reporting

The Permittee must submit annual reports to the appropriate RWQCB by September 15th of each year (for Small MS4s designated with the adoption of this permit, the first annual report is to be submitted in 2004), or as otherwise required by the RWQCB Executive Officer, unless exempted under Provision D.6. The report shall summarize the activities performed throughout the reporting period (July 1 through June 30) and must include:

- a. The status of compliance with permit conditions;
- b. An assessment of the appropriateness and effectiveness of the identified BMPs;
- c. Status of the identified measurable goals;
- d. Results of information collected and analyzed, including monitoring data, if any, during the reporting period;

- e. A summary of the storm water activities the Permittee plans to undertake during the next reporting cycle;
 - f. Any proposed change(s) to SWMP along with a justification of why the change(s) are necessary; and
 - g. A change in the person or persons implementing and coordinating SWMP.
- 2. RWQCB may impose additional monitoring requirements, which may include a reporting component. RWQCBs may adopt such requirements on an individual or group basis.
 - 3. Recordkeeping

The Permittee must keep records required by this General Permit for at least five years or the duration of the General Permit if continued. The RWQCB Executive Officer may specify a longer time for record retention. The Permittee must submit the records to the RWQCB Executive Officer upon request. The Permittee must make the records, including the permit and SWMP, available to the public during regular business hours.

G. RWQCB AUTHORITIES

RWQCBs will review and approve SWMPs prior to permit coverage being in effect and will conduct public hearings of individual permit applications upon request. Where there is no hearing, the Executive Officer may approve the SWMP. RWQCBs will also oversee compliance with this General Permit. Oversight may include, but is not limited to, reviewing reports, requiring modification to SWMPs and other submissions, imposing region-specific monitoring requirements, conducting inspections, taking enforcement actions against violators of this General Permit, and making additional designations of Permittees pursuant with the criteria described in this General Permit and Fact Sheet. The RWQCBs may also issue individual permits to regulated Small MS4s, and alternative general permits to categories of regulated Small MS4s. Upon issuance of such permits by an RWQCB, this General Permit shall no longer regulate the affected Small MS4(s).

H. STANDARD PROVISIONS

1. General Authority

Three of the minimum control measures (illicit discharge detection and elimination, and the two construction-related measures) require enforceable controls on third party activities to ensure successful implementation of the measure. Some non-traditional operators, however, may not have the necessary legal regulatory authority to adopt these enforceable controls. As in the case of

local governments that lack such authority, non-traditional MS4s are expected to utilize the authority they do possess and to seek cooperative arrangements.

2. Duty to Comply

The Permittee must comply with all of the conditions of this General Permit. Any permit noncompliance constitutes a violation of CWA and the Porter-Cologne and is grounds for enforcement action and/or removal from General Permit coverage. In the event that the Permittee is removed from coverage under the General Permit, the Permittee will be required to seek coverage under an individual or alternative general permit.

3. General Permit Actions

This General Permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a General Permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not nullify any General Permit condition.

If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under section 307(a) of CWA for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this General Permit, this General Permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition and Permittee so notified.

4. Noncompliance Reporting

Permittees who cannot certify compliance and/or who have had other instances of noncompliance shall notify the appropriate RWQCB within 30 days. Instances of noncompliance resulting in emergencies (i.e., that endanger human health or the environment) shall be reported orally to the RWQCB within 24 hours from the time the discharger becomes aware of the circumstance and in writing to the RWQCB within five days of the occurrence. The notification shall identify the noncompliance event and an initial assessment of any impact caused by the event, describe the actions necessary to achieve compliance, and include a time schedule indicating when compliance will be achieved. The time schedule and corrective measures are subject to modification by the RWQCB Executive Officer.

5. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this General Permit.

6. Duty to Mitigate

The Permittee shall take all responsible steps to minimize or prevent any discharge in violation of this General Permit that has a reasonable likelihood of adversely affecting human health or the environment.

7. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain any facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this General Permit and with the requirements of SWMP. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance may require the operation of backup or auxiliary facilities or similar systems installed by the Permittee when necessary to achieve compliance with the conditions of this General Permit.

8. Property Rights

This General Permit does not convey any property rights of any sort or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor does it authorize any infringement of federal, State, or local laws or regulations.

9. Duty to Provide Information

The Permittee shall furnish RWQCB, SWRCB, or U.S. EPA, during normal business hours, any requested information to determine compliance with this General Permit. The Permittee shall also furnish, upon request, copies of records required to be kept by this General Permit.

10. Inspection and Entry

The Permittee shall allow RWQCB, SWRCB, U.S. EPA, or an authorized representative of RWQCB, SWRCB, or U.S. EPA, upon the presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the Permittee's premises during normal business hours where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this General Permit;
- b. Access and copy, during normal business hours, any records that must be kept under the conditions of this General Permit within a reasonable time from notification;

- c. Inspect during normal business hours any municipal facilities; and
- d. Sample or monitor at reasonable times for the purpose of assuring General Permit compliance.

11. Signatory Requirements

All NOIs, SWMPs, certifications, reports, or other information prepared in accordance with this General Permit submitted to SWRCB or RWQCB shall be signed by either a principal executive officer, ranking elected official, or duly authorized representative. The principal executive officer of a Federal agency includes the chief executive officer of the agency or the senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of U.S. EPA).

12. Certification

Any person signing documents under Section H.11 above shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

13. Anticipated Noncompliance

The Permittee will give advance notice to the RWQCB and local storm water management agency of any planned changes in the regulated Small MS4 activity that may result in noncompliance with General Permit requirements.

14. Penalties for Falsification of Reports

Section 309(c)(4) of CWA provides that any person who knowingly makes any false material statement, representation, or certification in any record or other document submitted or required to be maintained under this General Permit, including reports of compliance or noncompliance, shall upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment for not more than two years or by both.

15. Penalties for Violations of Permit Conditions

- a. Part 309 of CWA provides significant penalties for any person who violates a permit condition implementing Parts 301, 302, 306, 307, 308, 318, or 405 of CWA or any permit condition or limitation implementing any such section in a permit issued under Part 402. Any person who violates any permit condition of this General Permit is subject to a civil penalty not to exceed \$27,500 per calendar day of such violation, as well as any other appropriate sanction provided by Part 309 of CWA.
- b. Porter-Cologne also provides for administrative, civil, and criminal penalties, which in some cases are greater than those under CWA.

16. Oil and Hazardous Substance Liability

Nothing in this General Permit shall be construed to preclude the institution of any legal action against the Permittee or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject to under Part 311 of CWA.

17. Severability

The provisions of this General Permit are severable; and, if any provision of this General Permit or the application of any provision of this General Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this General Permit shall not be affected thereby.

18. Reopener Clause

This General Permit may be modified, revoked and reissued, or terminated for cause due to promulgation of amended regulations, or otherwise in accordance with 40 CFR sections 122.62, 122.63, 122.64, and 124.5.

19. Availability

A copy of this General Permit and SWMP shall be made available for public review.

20. Transfers

This General Permit is not transferable. A Permittee must submit written notification to the appropriate RWQCB to terminate coverage of this General Permit.

21. Continuation of Expired Permit

This General Permit expires five years from the date of adoption. This General Permit continues in force and in effect until a new General Permit is issued or the SWRCB rescinds this General Permit. Only those Small MS4s authorized to discharge under the expiring General Permit are covered by the continued General Permit.

CERTIFICATION

The undersigned, Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of SWRCB held on April 30, 2003.

AYE: Arthur G. Baggett, Jr.
Peter S. Silva
Richard Katz
Gary M. Carlton

NO: None

ABSENT: None

ABSTAIN: None

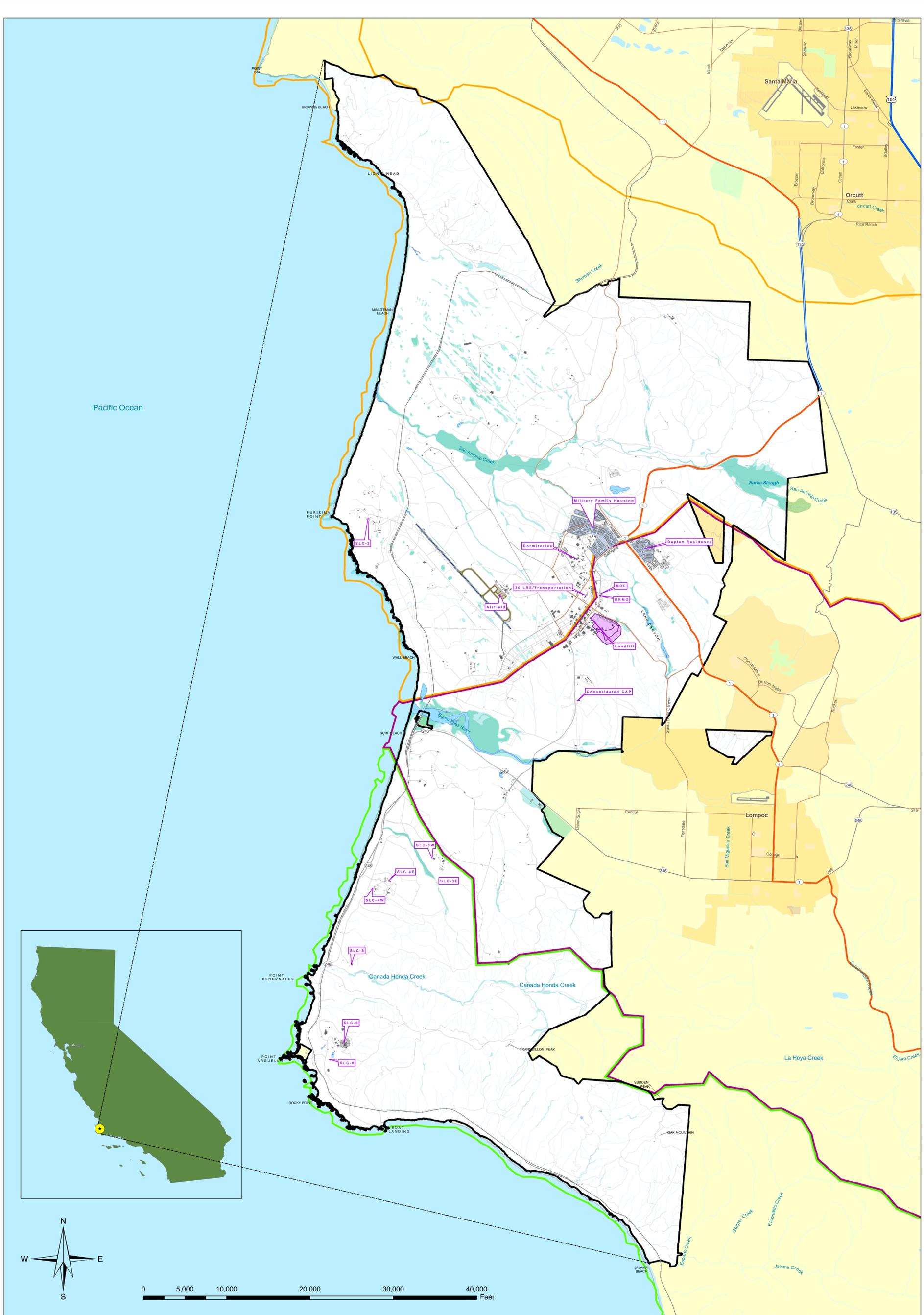
Maureen Marché
Clerk to the Board

APPENDIX 2 TO BASIC PLAN
VANDENBERG AFB MAPS

This Appendix contains figures which delineate Vandenberg AFB jurisdiction as it applies to this SWMP.

- Figure 1, MS4 Boundary
- Figure 2, Hydrologic Units Relative to MS4 Boundary
- Figure 3, Anderson Peak Optical Site
- Figure 4, Santa Ynez Peak Optical Site

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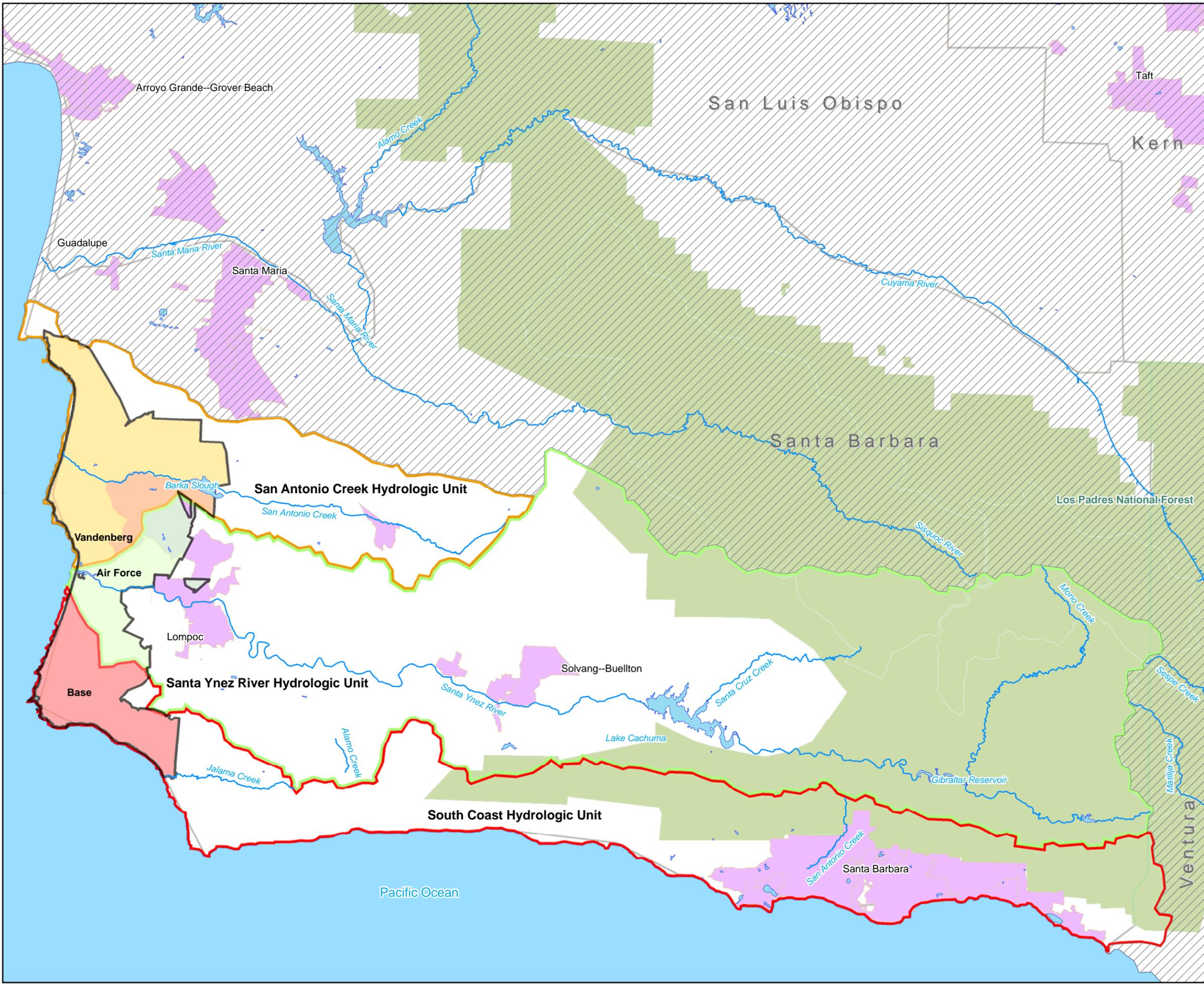
0 5,000 10,000 20,000 30,000 40,000 Feet

Legend			
	MS4 Boundary		Waterbody
	San Antonio Creek Hydrologic Unit		Lake/Pond
	South Coast Hydrologic Unit		Canal/Ditch
	Santa Ynez River Hydrologic Unit		Reservoir
			Playa
			Inundation Area
			Swamp/Marsh
			Wetland
			River or Creek
			Ice Mass

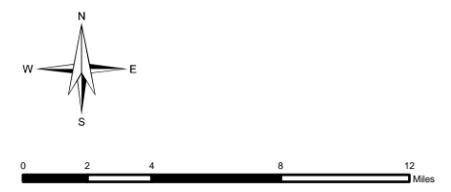
United States Air Force Vandenberg Air Force Base

Storm Water Management Plan Figure 1. MS4 Boundary Vandenberg Air Force Base





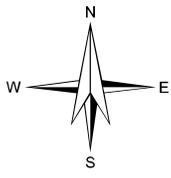
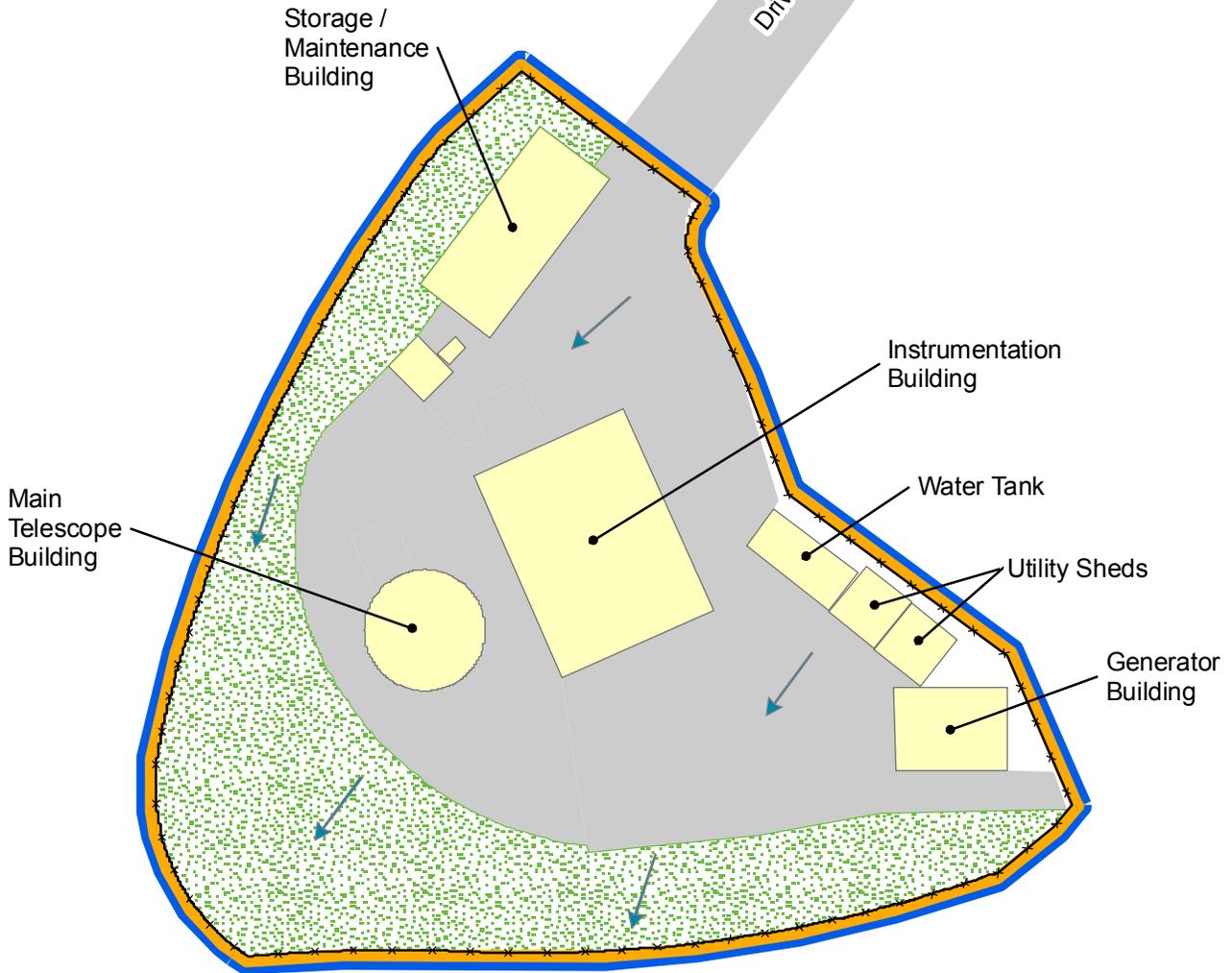
- Legend**
- MS4 Boundary
 - San Antonio Creek Hydrologic Unit
 - Santa Ynez River Hydrologic Unit
 - South Coast Hydrologic Unit
 - Urbanized Area
 - County Boundary
 - National Forest
 - River**
 - River or Creek
 - Waterbody**
 - Lake or Ocean



**United States Air Force
Vandenberg Air Force Base**

Storm Water Management Plan
Figure 2. Hydrologic Units Relative to MS4 Boundary
Vandenberg Air Force Base





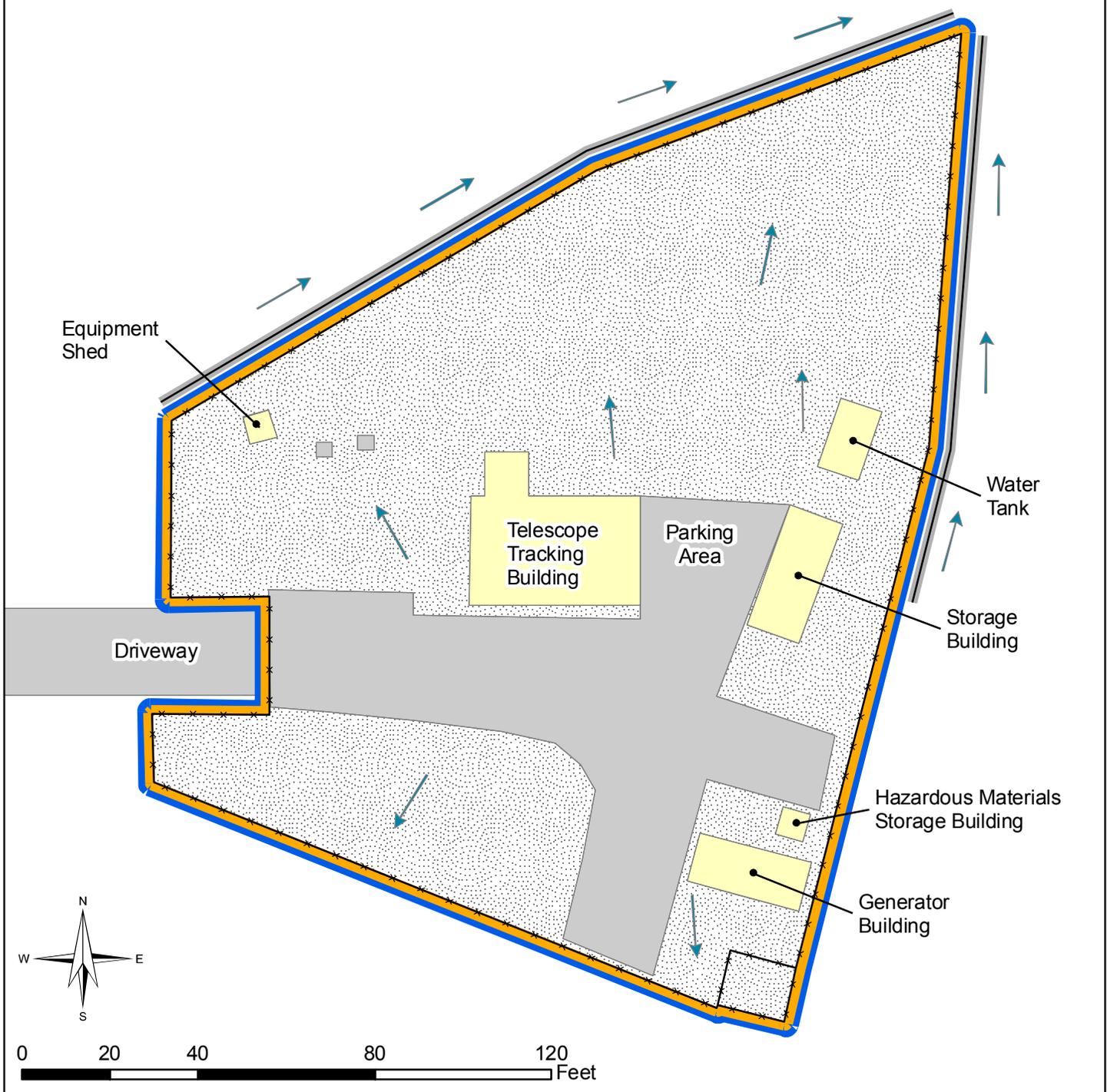
Legend

-  MS4 Boundary
-  Fence
-  Building
-  Vegetation
-  Impervious surface
-  Flow Direction

**United States Air Force
Vandenberg Air Force Base**

**Storm Water Management Plan
Figure 3. MS4 Boundary
Anderson Peak Optical Site**





Legend

-  MS4 Boundary
-  Fence
-  V-ditch
-  Building
-  Gravel
-  Impervious surface
-  Flow Direction

**United States Air Force
Vandenberg Air Force Base**

**Storm Water Management Plan
Figure 4. MS4 Boundary
Santa Ynez Peak Optical Site**



APPENDIX 3 TO BASIC PLAN

NOTIFICATION TO TRADITIONAL, SMALL MS4S ON PROCESS FOR ENROLLING UNDER THE STATE'S GENERAL PERMIT FOR STORM WATER DISCHARGES, 15 FEBRUARY, 2008

This Appendix contains a letter dated 15 February 2008, entitled *Notification to Traditional, Small MS4s on Process for Enrolling Under the State's General Permit for Storm Water Discharges* (CCRWQCB 2008). In this letter the CCRWQCB defines a newly established process for SWMP approval and described expectations for SWMP content necessary for compliance with the Small MS4 General Permit. The CCRWQCB directs MS4s, including Vandenberg AFB, to develop BMPs in the SWMP to achieve four additional water quality protection conditions not specifically defined within the Small MS4 General Permit.

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Linda S. Adams
Agency Secretary

California Regional Water Quality Control Board Central Coast Region



Arnold Schwarzenegger
Governor

Internet Address: <http://www.waterboards.ca.gov/centralcoast>
895 Aerovista Place, Suite 101, San Luis Obispo, California 93401-7906
Phone (805) 549-3147 • FAX (805) 543-0397

February 15, 2008

«AddressBlock»
«AgencyMailingAddress»
«AgencyCity», CA «AgencyZip»

«GreetingLine»:

Notification to Traditional, Small MS4s on Process for Enrolling under the State's General NPDES Permit for Storm Water Discharges

Introduction

As Executive Officer of the Regional Water Quality Control Board, Central Coast Region (Water Board), I am writing to notify you of the Water Board's revised process for enrolling traditional, small Municipal Separate Storm Sewer Systems (MS4s) under the State's General Permit No. CAS000004 (General Permit). Water Board staff have identified you as an entity that owns or operates an MS4, so you must enroll in the General Permit and develop and implement a Storm Water Management Program (SWMP). This letter describes the SWMP approval process and our expectations regarding the content of your SWMP to comply with the General Permit, and provides you with the schedule Water Board staff intend to follow for review of your SWMP and enrollment of your MS4 under the General Permit. Staff will communicate further with you as your enrollment cycles begin, to establish specific schedules for the five phases leading to enrollment.

Water Board staff will evaluate your SWMP for compliance with the General Permit requirements, including the Maximum Extent Practicable standard, and as appropriate will approve the SWMP and enroll you in the General Permit. If requested, Water Board staff will schedule a public hearing before the Central Coast Water Board for consideration of an individual SWMP.

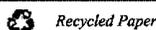
The Water Board's revised enrollment process is a fundamental shift from the way we have reviewed and approved SWMPs to date. The revised enrollment process eliminates the multiple SWMP review/edit iterations and negotiations that characterized our previous approach. For SWMPs that do not meet the schedule and content described here for General Permit compliance, staff will draft specific resolutions or individual permits for Water Board consideration that will protect water quality, beneficial uses, and the biological and physical integrity of watersheds.

Enrollment Process and Schedule

Water Board staff grouped the 24 remaining un-enrolled traditional MS4s into eight enrollment cycles (Table 1). Each cycle spans a period of 33 to 38 weeks and concludes, on the projected date, with Water Board approval of individual SWMPs and enrollment of the MS4s under the General Permit.

Each enrollment cycle includes five time-limited phases requiring specific actions by both Water Board staff and the MS4 (Table 2). The precise timing and duration of each phase is subject to

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February 15, 2008

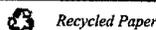
change; Water Board staff will develop specific schedules at the commencement of each enrollment cycle.

Table 1: Enrollment Cycles for Attachment 1 and 2 MS4s

Cycle	MS4 Group	Group Members	Projected Start Date for Enrollment Cycle	Projected Executive Officer SWMP Approval	Projected Board SWMP Approval ¹
1	Santa Maria/Lompoc	Santa Maria Lompoc	Jan. 22, 2008	July 28, 2008	Sept. 5, 2008 San Luis Obispo
2	Coastal Santa Barbara County	Goleta Carpinteria Santa Barbara UC Santa Barbara	Jan. 29, 2008	September 2, 2008	Oct. 17, 2008 Santa Barbara
3	Santa Cruz Mountains and Coast	Santa Cruz County Capitola Soquel Aptos Ben Lomond Boulder Creek Live Oak Felton Coralitos Watsonville City of Santa Cruz Scotts Valley UC Santa Cruz	Mid February 2008	October 20, 2008	Dec. 5, 2008 San Luis Obispo
4	Coastal San Luis Obispo County	Arroyo Grande Grover Beach Pismo Beach Oceano Morro Bay Baywood – Los Osos	Mid April 2008	January 2009	2009 – 1 st Quarter San Luis Obispo
5	Upper Salinas	King City Templeton Atascadero	Early June 2008	February 2009	2009 – 1 st Quarter Salinas
6	City of San Luis Obispo	City of San Luis Obispo	Early September 2008	April 2009	2009 – 2 nd Quarter San Luis Obispo
7	Upper Pajaro	Gilroy San Martin Santa Clara	Early November 2008	August 2009	2009 – 3 rd Quarter Watsonville
8	Santa Ynez	Buellton Solvang Vandenberg AFB	Mid November 2008	August 2009	2009 – 3 rd Quarter San Luis Obispo

1. Board approval only required if a hearing is requested by stakeholder

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Table 2: Phases of MS4 Enrollment Cycle

	Duration (weeks)
Phase I: Water Board Staff Assessment of Water Quality Challenges	
Water Board staff: Assess available water quality information Accept input from stakeholders on water quality conditions Prepare and transmit to MS4 staff a statement of current knowledge of water quality challenges that must be addressed by SWMP	3 – 4
Phase II: Water Board Staff SWMP Review	
Water Board staff: Review SWMP and “red-lines” text Send red-lined SWMP and letter explaining requirements to MS4	3 – 4
Phase III: MS4 SWMP Redraft	
MS4 staff re-draft SWMP and post for Public Review	6
Phase IV: Water Board Staff Final Review and Posting of SWMP	
Water Board staff review SWMP	2 – 4
Water Board staff post SWMP and table of required revisions for Public Review	8
Water Board staff respond to public comment and EO approves SWMP	3 – 4
Phase V: Water Board Action (if hearing requested)	
Water Board staff prepare Staff Report with recommendation and resolution for SWMP approval	2
Water Board Staff: Post Staff Report with Board Agenda for Public Review Respond to additional public comment Prepares Presentation for Hearing Conduct internal review up to Board Meeting	6
Total	33 to 38

Communication

Clear and open communication between Water Board staff, MS4 staff, and stakeholders is vital to the success of this enrollment process. Also, the Phase II General Permit requires public participation as a component of developing and implementing successful stormwater management programs for MS4s. To comply with the General Permit, you must verify that you have achieved broad and timely distribution of announcements of scoping meetings, draft stormwater program documents, and local agency actions on stormwater program activities when you submit your SWMP for Water Board staff review.

Water Board staff are committed to ensuring that the enrollment process proceeds with open communication. Staff will employ a list-serve (email notification) for notifying all interested parties of important milestones in each enrollment cycle. Water Board staff will also maintain an MS4 enrollment tracking webpage where staff will post relevant documents and indicate the status of each MS4 in the enrollment process. Additionally, an individual Water Board staff person will be assigned to each enrollment cycle. We request that you also identify an individual to serve as point of contact representing your MS4 with whom we will communicate during the enrollment process. You must identify your point of contact when Water Board staff contact you to initiate your enrollment cycle.

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Central Coast Water Board Expected SWMP Content

The federal Clean Water Act (CWA) provides that National Pollutant Discharge Elimination System (NPDES) permits for MS4s must require municipalities to reduce pollutants in their stormwater discharges to the Maximum Extent Practicable (MEP) (CWA §402(p)(3)(B)). The California Water Boards have established the meaning and application of this standard through several adopted stormwater permits (the MEP standard is the same for Phase I and Phase II municipalities)¹. The Water Board implements the General Permit to be consistent with its Water Quality Control Plan (Basin Plan) to ensure protection of water quality, beneficial uses, and the biological and physical integrity of watersheds according to the issues in the Regions.

Your SWMP must include an array of Best Management Practices (BMPs), including the six Minimum Control Measures listed in the General Permit, to achieve the following conditions:

- I. Maximize infiltration of clean stormwater, and minimize runoff volume and rate
- II. Protect riparian areas, wetlands, and their buffer zones
- III. Minimize pollutant loading; and
- IV. Provide long-term watershed protection

I. Maximize Infiltration of clean stormwater, and minimize runoff volume and rate.

Water Board staff expect your SWMP to present a schedule for development and adoption of control standards for hydromodification. For SWMP adoption, staff will recommend to the Water Board the following interim requirements, which would apply until such time that you develop acceptable control standards for hydromodification:

- For new and re-development projects, Effective Impervious Area² shall be maintained at less than five percent (5%) of total project area.
- For new and redevelopment projects that create and/or replace 5,000 square feet or more of impervious surface, the post-construction runoff hydrographs shall match within one percent (1%) the pre-construction³ runoff hydrographs, for a range of events with return periods from 1-year to 10-years.
- For projects whose disturbed project area exceeds two acres, preserve the pre-construction drainage density (miles of stream length per square mile of watershed) for all drainage areas serving a first order stream⁴ or larger, and ensure that post-project time of concentration is equal or greater than pre-project time of concentration.

These interim requirements must be implemented for all applicable projects subject to your discretionary approvals within six (6) months of your enrollment in the Phase II permit. Your schedule for development and adoption of your own control standards for hydromodification must include:

- Numeric criteria for controlling stormwater runoff volume and rates from new and redevelopment.

¹ Several stormwater permits adopted by different Regional Boards have been legally challenged. All have been upheld by the State Water Resources Control Board and the courts. The Water Boards have broad authority to regulate stormwater and land use activities that result in discharges to waters of the State. Urbanization is one the most important land use activities affecting water quality, beneficial uses, and the physical and biological integrity of watersheds in the Central Coast Region.

² Effective Impervious Area is that portion of the impervious area that drains directly to a receiving surface waterbody via a hardened storm drain conveyance without first draining to a pervious area. In other words, impervious surfaces tributary to pervious areas are not considered Effective Impervious Area.

³ Pre-construction condition is defined as undeveloped soil type and vegetation.

⁴ A first order stream is defined as a stream with no tributaries.

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- Numeric criteria for stream stability required to protect downstream beneficial uses and prevent physical changes to downstream stream channels that would adversely affect the physical structure, biologic condition, and water quality of streams.
- Specific applicability criteria, land disturbance acreage thresholds, and exemptions.
- Performance criteria for control BMPs and an inspection program to ensure proper long term functioning over.
- Education requirements for appropriate municipal staff on hydromodification and Low Impact Development.

You must include an effective strategy to control hydromodification, or Water Board staff will recommend to the Water Board requirements in the resolution approving your SWMP and enrolling you in the Phase II permit.

II. Protect riparian areas, wetlands, and their buffer zones:

Your SWMP must include BMPs and/or other control measures to establish and maintain a minimum 30-foot buffer zone for riparian areas and wetlands⁵. The buffer zone is a protective area that is undisturbed to the maximum extent practicable. Your SWMP must include consideration and prioritization of local conditions, such as habitat degradation, water quality, and land management practices, and apply more substantial buffer zones where necessary to protect riparian areas and wetlands.

You must include an effective strategy to adopt and implement protection of riparian areas, wetlands, and their buffer zones, or Water Board staff will recommend to the Water Board requirements in the resolution approving your SWMP and enrolling you in the Phase II permit.

III. Minimize pollutant loading

Your SWMP must include BMPs and/or other control measures to minimize pollutant loading, including volume- and/or flow-based treatment criteria. Your SWMP must include consideration and prioritization of local conditions, such as existing pollutant loading, water quality, 303(d) listed impaired waters, pollutants of concern, habitat degradation, and land management practices, and apply more stringent control measures where necessary to minimize pollutant loading.

You must include an effective strategy to reduce pollutant loading, or Water Board staff will recommend to the Water Board requirements in the resolution approving your SWMP and enrolling you in the Phase II permit.

IV. Provide long-term watershed protection

You must include in your SWMP a strategy to develop watershed based hydromodification management plans. These plans should incorporate Low Impact Development strategies with the goal of Post Construction Storm Water Management to achieve an Effective Impervious Area of no more than three to ten percent (3 – 10%) of watershed area within your jurisdiction, depending on local conditions.

The requirements listed above are often characterized as hydromodification controls, or Low Impact Development. These terms are related and their meanings overlap. These requirements are necessary to ensure protection of water quality, beneficial uses, and the biological and physical integrity of watersheds and aquatic habitat. You can reference information on hydromodification controls and Low Impact Development principles on the Central Coast Water Board's website:

⁵ The Central Coast Water Quality Control Plan (Basin Plan) requires protection of riparian and wetland habitat and their buffer zones (Basin Plan, Section V.G. 4).

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http://www.waterboards.ca.gov/centralcoast/stormwater/low%20impact%20devel/lid_index.htm.

Evaluation of Program Effectiveness and Progress toward Water Quality Goals

Because MEP is a dynamic performance standard which evolves over time as stormwater management knowledge increases, MS4 managers must continually assess and modify their programs to incorporate improvements in control measures and BMPs to achieve MEP. Therefore, your SWMP should contain a detailed plan for evaluating its effectiveness and progress toward complying with the General Permit. Your SWMP must also explain how you will communicate evaluation results with stakeholders. Your evaluation plan should include quantifiable measures for evaluating the effectiveness of the program and be based on the following objectives:

- Assess compliance with requirements of the General Permit, including:
 - Inspection Programs
 - Construction Site Controls
 - Elimination of unlawful discharges
 - New development and redevelopment requirements
- Verify that BMPs are being implemented (e.g., all new applicable developments meet hydromodification control requirements described above and as further described in your SWMP);
- Assess the chemical, physical, and biological impacts on beneficial uses caused by pollutants of concern in stormwater discharges;
- Characterize watersheds and stormwater discharges;
- Identify sources of pollutants; and
- Evaluate long-term trends in receiving water quality.

Conclusion

Please become familiar with the schedule for the enrollment cycle for your MS4, and the steps in the enrollment process. When Water Board staff contact you to initiate your enrollment cycle, please provide us with contact information for the individual that will be representing your MS4.

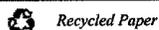
Please begin updating or preparing your SWMP to include the following as explained in this letter:

- Hydromodification controls for new and redevelopment;
- Protection of riparian and wetland habitat and their buffer zones;
- Minimization of pollutant loading;
- Provision of long-term watershed protection; and
- Evaluation of program effectiveness.

Your SWMP must be specific and must include: well-defined BMPs and other actions that you will implement, schedules, measurable goals, and measures to determine the effectiveness of your program. If your SWMP is not comprehensive or lacks specificity, I will not approve it, and Water Board staff will draft a resolution or an individual permit for consideration by the Water Board at a hearing.

I am clarifying the Water Board's revised enrollment process and SWMP content and requirements to speed up approval of SWMPs for MS4s in the Central Coast Region that will protect water quality, beneficial uses, and the biological and physical integrity of watersheds. I am also committing staff time to regulate MS4s and provide technical and financial assistance to municipalities for stormwater management programs.

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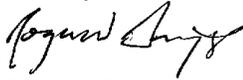
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February 15, 2008

The Proposition 84 Storm Water Grant Program funds may be used to provide matching grants to local public agencies for the reduction and prevention of stormwater pollution of rivers, lakes, and streams. A total of approximately \$82 million will be available for matching grants. A scoping meeting to answer questions and to solicit input will be held at our office in San Luis Obispo on Monday, March 3, 2008, from 1:00 – 4:00 PM. For more information on the Proposition 84 Storm Water Grant Program and workshops, visit the State Water Board's website at: <http://www.waterboards.ca.gov/funding/prop84.html>.

I anticipate you will have questions about this letter and the expected content of your SWMP. Please contact us. Our lead staff for this enrollment process is **Dominic Roques**, droques@waterboards.ca.gov or at (805) 542-4780.

Sincerely,



Roger W. Briggs
Executive Officer

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APPENDIX 4 TO BASIC PLAN

SECTION 01010 / APPENDIX 'H' - ENVIRONMENTAL REQUIREMENTS

This Appendix contains Section 01010 of the current model service contract. Section 01010 addresses environmental requirements including storm water pollution prevention.

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SECTION 01010 / APPENDIX 'H' - ENVIRONMENTAL REQUIREMENTS

PART 1 - GENERAL

1.01 ENVIRONMENTAL COMPLIANCE REQUIREMENTS

- A. General:** Vandenberg Air Force Base (VAFB) Contractors, and their subcontractors, shall comply with the most stringent federal, state, and local environmental laws, regulations, and Air Force policies, instructions, and plans. The federal government is not exempt from compliance with environmental regulations. The Contractor shall maintain an awareness of changing environmental regulatory requirements to avoid environmental deficiencies for activities on VAFB.
- B. Environmental Coordination:** The 30th Civil Engineering Squadron, Environmental Flight (30 CES/CEV) is the single point of contact for coordination with all environmental regulatory agencies. Prior to coordinating with any environmental regulatory agency, the contractor shall obtain approval from 30 CES/CEV. The Contractor shall provide copies of any regulatory agency notification, report, consultation, permit, and/or regulatory document to 30 CES/CEV.
1. The Contractor shall comply with all permit conditions and consultation requirements.
 2. The Contractor shall provide all required testing analysis and monitoring.
 3. The contractor may obtain VAFB environmental documents and plans from 30 CES/CEV.
- C. Environmental Planning:** The Contractor shall comply with all testing, monitoring, record keeping, reporting, mitigation, and protection measure requirements resulting from the National Environmental Policy Act (NEPA), the Environmental Impact Analysis Process (EIAP), and the VAFB 332 process. To initiate NEPA and EIAP, submit an AF Form 813 to the Planning Office in 30 CES/CEV. Completion of the NEPA and EIAP processes can take between three weeks to one year to complete. Early coordination is highly advised.
- D. Environmental Audits/Inspections:** The Contractor shall support the government with all federal, state, local, and Air Force environmental inspections, audits, or assessments.
- E. Notices of Violations (NOV):** The Contractor shall be liable for any Notices of Violation (NOV), enforcement action, fine, penalty, and/or corrective action imposed by federal, state, or local environmental regulatory agencies for activities under the Contractor's control. The Contractor shall provide verbal notification to 30 CES/CEV and the Contracting Officer within 24-hours of receiving an NOV followed by written notification within three (3) working days.

1.02 SUBMITTALS

- A.** The Contractor shall provide the following to 30 CES/CEV or their designated agency:
1. Environmental Protection Plan (paragraph 1.03)
 2. Air Emissions data (paragraph 1.04.D)
 3. Source Profile Form for boilers/hot water heaters, 30 SW Form 155/156, (paragraph 1.04.B)
 4. Boiler Emission Standards and/or source test with applicable compliance certifications data that complies with applicable SBAPCD rule requirements (paragraph 1.04.B)
 5. Monthly Hazardous Material (HAZMAT) usage totals (paragraph 1.08.C).
 6. HAZMAT Business Plan or HAZMAT Disclaimer, (paragraph 1.08.D).

7. A Recovered Materials Determination Form (RMDF) (paragraph 1.11.B).
8. An Estimate of Percentage of Recovered Material Content for EPA-Designated Products (paragraph 1.11.D).
9. The weight and quantity of the Solid Waste and Construction & Demolition debris disposed of off-base for recycling and reuse and not disposed in a local landfill (paragraph 1.12.C. 8).
10. Notice of Intent (NOI) to comply with the Terms of the General Permit to Discharge Storm Water Associated with Construction Activity (paragraph 1.06.C.1).
11. Draft and Final Storm Water Pollution Prevention Plan (SWPPP) (paragraph 1.06.C.2).
12. Notice of Termination of Coverage under the General Construction Storm Water Permit (NOT) (paragraph 1.06.C.5).
13. Annual Certification Report. Submit to RWQCB by 20 August and provide proof of submittal to 30 CES/CEVC. (paragraph 1.06.C.3)
14. Aboveground Storage Tank (AST) technical information (paragraph 1.17.B).

1.03 ENVIRONMENTAL PROTECTION PLAN (EPP) REQUIREMENTS

- A. General:** The Contractor shall, prior to the start of activities on VAFB, submit an EPP to 30 CES/CEV. The Contractor's EPP shall describe, at a minimum, how they will meet environmental compliance requirements and address their methods, procedures, and practices pertaining to air quality, water quality, waste water, storm water, cultural resources, natural resources, storage tanks, hazardous waste management, hazardous materials management, spill/release management, recycled/recovered materials, solid waste and construction debris management, PCBs, lead-based paint and asbestos management, and a listing of all Contractor combustion source equipment with appropriate CARB registration and SBCAPCD permits. The Contractor shall maintain a copy of the EPP on-site. The Contractor shall brief their personnel of the contents and procedures in the EPP in order to maintain compliance.
- B. Submittal:** The Contractor shall provide their EPP for approval to 30 CES/CEV, 10 days prior to the start of any activities on VAFB. An example EPP shall be provided to the contractor upon request.

1.04 AIR QUALITY REQUIREMENTS

- A. General:** The Contractor, and their subcontractors, shall comply with all applicable, but not limited to: Federal and state Clean Air Acts; Santa Barbara County Air Pollution Control District (SBCAPCD) rules and regulations; SBCAPCD Permit To Operate or Authority to Construct requirements; California Air Resources Board (CARB) standards, controls, and portable equipment registration requirements; any applicable US EPA Maximum Achievable Control Technology (MACT) standards; AFI 32-7040, Air Quality Compliance; AFI 32-7086, Hazardous Materials Management; 30 SWI 32-702, Environmental Management Air Emission Inventories; and 30 SW Fuel Use Monitoring Plan (FUMP). The contractor shall comply with all the applicable air quality requirements and implement accepted construction best management practices.
- B. Authority to Construct (ATC) or Permit to Operate (PTO):** Prior to beginning an activity on VAFB which requires an ATC or PTO, the Contractor will coordinate with 30 CES/CEV. ATCs and PTOs are required for the installation of new generators, internal combustion engine powered equipment or devices, and modification or installation of boilers, steam generators, furnaces, process heaters, water heater units, paint spray booths, abrasive blasting booths, gasoline dispensing facilities, etc. The ATC or PTO approval can take up to 210 days. Due to strict emissions requirements, all equipment or processes requiring a permit must comply with

applicable SBCAPCD rules and be approved by 30 CES/CEV Air Quality staff prior to procurement.

C. Violations: The Contractor shall immediately report air permit violations to 30 CES/CEV and to the Contracting Officer within 24-hours.

D. Air Quality Provisions:

1. **Demolition, Site Clearing, Grading, Excavation, Backfilling, and Trenching:** Contractor shall implement dust control measures to prevent the creation of a nuisance dust incident. When work involves demolition of load bearing wall; asbestos abatement and/or removal; or work trailer removal from VAFB, the Contractor shall submit the SBCAPCD "Notification for Renovation and Demolition" form to 30 CES/CEV for approval and signature a minimum of 15 working days prior to the start.
2. **Paving:** Contractor shall comply with the VAFB Cutback and Emulsified Asphalt Paving Materials Recordkeeping and Compliance Plan which incorporates the ROC content and recordkeeping requirements specified by SBCAPCD 329, Cutback and Emulsified Asphalt Paving Materials. This plan is only applicable to the use of cutback and emulsified asphalt paving materials as defined in the plan.
3. **Coating, Painting, Adhering, and Sealing:** Contractor shall use compliant coatings as specified in SBCAPCD Rule 323, Architectural Coatings; Rule 330, Surface Coating of Metal Parts and Products; Rule 351, Surface Coatings of Wood Products; and Rule 353, Adhesives and Sealants. The contractor must also comply with the operational requirements specified in SBCAPCD Rules. The Contractor shall not dispose of solvents by evaporation. Recordkeeping requirements are met through enrollment in the Hazmart.
4. **Abrasive Blasting and Corrosion Control:** Contractor shall use CARB approved abrasive blasting media and implement dust control measures in order to prevent the creation of a nuisance dust incident. If the Contractor would like to use an abrasive blasting cabinet, the Contractor will contact 30 CES/CEV for assistance. The Contractor shall report the amount of materials used to 30 CES/CEV at the end of the contract or by January 31st for the previous year's activities, which ever occurs first.
5. **Use of Equipment Powered by Portable Internal Engines:** Contractor shall provide proof of CARB registration in the California Air Resources Board (CARB) Portable Equipment Registration Program (PERP) for all portable equipment used for projects on VAFB. Threshold sizes are 20 bhp and greater for spark ignited units and 50 bhp or greater for diesel fired units. A 30 SW Form 156, Source Profiling Form, will be completed and submitted to 30 CES/CEV for all contractor owned and/or operated portable equipment operated on VAFB.
 - a. Fuel usage and hours of operation as required by the registration must be submitted to 30 CES/CEV at the end of the contract or by 31 January for the previous year's activities, which ever occurs first.
 - b. If the equipment is not registered in the CARB PERP, all ICEs greater or equal to the brake horsepower thresholds listed above must be properly permitted by the SBCAPCD for use at various locations within the county.
6. **Gasoline/E-85 Storage Tanks:** Contractor shall only use storage tanks less than 250 gallons and allow only one storage for each commodity (No multiple tanks of the same commodity). If the Contractor would like to use more than one tank for each commodity or a tank greater than 250 gallons, prior approval is required by 30 CES/CEV. The Contractor shall report the

amount of gasoline and E-85 used to 30 CES/CEV at the end of the contract or by 31 Jan for the previous year's activities, which ever occurs first.

7. **Class I Ozone Depleting Substance (ODS):** When the Contractor is required to work on any equipment with Class I ODS refrigerants, then the Contractor shall comply with, at a minimum, all of the requirements identified in 40 CFR Part 82, Section 608, Ozone Protection Regulations: Stationary Refrigeration and Air Conditioning, Halon Handling of the Clean Air Act. The Contractor shall supply copies of the technician certifications to 30 CES/CEV. The Contractor shall report the amount of ODS used to 30 CES/CEV at the end of the contract or by 31 Jan for the previous year's activities, which ever occurs first. As applicable to project requirements, the Contractor is required to use non-Ozone Depleting Substance (non-ODS) replacement products found on EPA's Significant New Alternatives Policy (SNAP) at www.epa.gov/ozone/snap/lists/index.html.
8. **Operation of Vandenberg Owned Permitted Equipment:** All permitted equipment operated by the Contractor shall be operated in compliance with the requirements of the PTO. All records required by such permits will be maintained according to the permit and will be provided to 30 CES/CEV as requested.

E. Submittals: The Contractor shall provide the following to the Contracting Officer.

1. Air Emissions data.
2. 30 SW Form 155/156, prior to installation of steam generator, furnace, process or water heater.
3. Boiler Emission Standards and/or Source Test with applicable Compliance Certifications data that complies with applicable boiler, steam generator, furnace, process heater, and/or water heater. Submittal required prior to purchase and installation.

1.05 WATER QUALITY REQUIREMENTS

A. Ambient Water:

1. **Impaired Water Bodies:** Notify 30 CES/CEVC, Water Resources Program Manager prior to any planned discharge or threat of discharge into a water body on the federal 303(d) list of impaired water bodies. Impaired water bodies on base include: San Antonio Creek, the Santa Ynez River, Shuman Creek, and the Pacific Ocean at Jalama Creek.
2. **Section 401, 402, and 404 Water Quality Certification and Permits:** In support of federal permit programs, contractors will notify 30 CES/CEV prior to any project expected to affect jurisdictional waters (by discharge of pollutant, dredge, or fill material or by structural modification within the water body). Any effect may require a state water quality certification, local permit, or regional permit.

B. Drinking Water:

1. **Backflow Prevention:** Ensure that new or renovated drinking water supply connections and valves are equipped with backflow assemblies to protect potable water quality from contact with non-potable irrigation system backflows, stagnant water distribution lines, fire suppression system lines, and other backflow sourced cross-contamination. All new or renovated backflow assemblies must be tested and test results submitted to the cross-connection control program manager at the 30th Civil Engineering Utilities Shop.
2. **Cross Connection:** All abandoned potable water tanks, distribution lines, hydrants, and drinking water system components must be capped off, removed, permanently closed, or

made inert. Maintained potable lines must be protected against cross-contamination by preventing contact with abandoned line segments or non-potable connections. If necessary, backflow assemblies must be installed to remediate the potential for cross-connections. Ensure all encountered storm sewer lines, sanitary sewer lines, industrial feeder lines, and drinking water distribution lines no longer needed are capped off, removed, permanently closed, or made inert in order to prevent inflow-infiltration issues, cross-connections, and/or health-related hazards.

3. **Non-potable Water:** All non-potable water supplies must be clearly identified as non-potable through use of visible markings or signage.
4. **Potable Water Supply – Tanks:** New or refurbished water tanks that have recently undergone interior coating maintenance must be VOC water-tested prior to placement into use as a water supply reservoir.

C. Domestic Wastewater:

1. **Sanitary Sewer:** VAFB sanitary sewer connections are authorized for discharges of approved domestic wastewater as defined by discharge standards set by the City of Lompoc. Discharge of any wastewater on VAFB, other than routine domestic wastewater, into the sanitary sewer system requires pre-authorization from 30 CES/CEV. Ensure that sanitary sewer lines that are no longer needed are capped, permanently closed, and/or made inert to prevent stormwater/groundwater inflow infiltration into the wastewater collection system. Report any sanitary sewer blockages and/or sewer system overflows to 30 CES/CEV.
2. **Grease Interceptors, Traps, and Oil Water Separators:** Grease traps and oil water separators (OWS), must be routinely cleaned and maintained to ensure they are functioning properly. Oil, grease, or oily sludge removed from restaurant traps, interceptors, and OWS units must be removed from base for disposition.
3. **Septic Systems:** Septage recovered from routine maintenance or decommissioned septic systems must be disposed of by discharge into a sanitary sewer manhole (approved by 30 CES/CEV) or an off-base collection point.

D. Industrial Wastewater:

1. **Discharge:** Approval from the City of Lompoc, an industrial discharge permit, or waiver from the Regional Water Quality Control Board is required to discharge process or industrial wastewater. 30 CES/CEV coordination and approval is required.
2. **Treatment:** If contract allows generator to dispose of their industrial or process wastewater at the VAFB IWTP, 30 CES/CEV coordination and approval is required. VAFB IWTP may not be able to accept all industrial or process wastewater.

E. Discharge to Grade (DTG): A DTG disposition form must be completed and preauthorized by 30 CES/CEV prior to discharge of any low-level contaminated wastewater.

F. Aqueous Unknowns: Stormwater, nonstormwater, groundwater, or wastewater that is collected in any kind of structure or container must be analyzed prior to removal and disposition. 30 CES/CEV coordination and approval is required.

G. Vehicle and Equipment Wash Water: Waste wash water derived from vehicle and equipment washing must be contained to ensure that it does not enter stormwater inlets or drainage systems. Biodegradable or detergent free wash water under wastewater containment is authorized to percolate in place. Any oily sheen must be cleaned and drummed for proper disposal.

- H. Building and Structural Preparation Washing:** During pressure washing of building roofs and walls, ensure that facility washdown waters and paint-related wastewaters are collected and sampled (roof and exterior walls must have separate analysis) to determine preferred disposal disposition. Prior to disposition, 30 CES/CEV coordination and approval is required.
- I. Groundwater:** Groundwater encountered should be left intact/in place if possible. Pumping, dewatering, well purging, etcetera, of groundwater in order to accomplish work activity requires pre-coordination with 30 CES/CEV and the Installation Restoration Program Office.
- J. Pollutant Spill Supplies and Wastewater Containment Units:** In the event of a hazmat spill or a stormwater pollution related incident, contact 30 CES/CEV for assistance with spill control and containment supplies. In the event that large volumes of wastewater must be emergency-pumped and staged, contact 30 CES/CEV for assistance.
- K. Miscellaneous:** Contractors shall submit and implement a plan to reduce water use by 20% on all VAFB projects. Contractors shall use water efficient products for all operations, maintenance, and construction projects. Approved products can be found at <http://www.epa.gov/watersense/> and http://www1.eere.energy.gov/femp/water/water_resources.html.

1.06 STORM WATER POLLUTION PREVENTION REQUIREMENTS

- A. General:** The Contractor shall comply with, but not limited to: the Clean Water Act, State Water Resources Control Board National Pollutant Discharge Elimination System (NPDES) General Permits; Storm Water Management Plan, 32-7041-C.
- B. Storm Water Best Management Practices (BMPs):** The contractor shall implement BMPs commonly accepted by the California Stormwater Quality Association. The contractor shall also conduct employee training in order to prevent sediment, chemicals, or other pollutants from migrating into the storm water system or waters of the state via stormwater and non-stormwater. BMPs will include erosion and sediment controls, tracking controls, spill prevention and control, concrete waste management, liquid waste management and stockpile management.
 - 1. The Contractor shall use gravel bags instead of sand bags as inlet and drainage protection.
 - 2. The Contractor may use clean wood mulch, if available from the VAFB Landfill, for their VAFB projects as an erosion control best management practice.
- C. General Construction Storm Water Permits Requirements:**
 - 1. The contractor shall obtain coverage under the State Water Resources Control Board (SWRCB) National Pollutant Discharge Elimination System (NPDES) General Permit CAS000002 for construction activities of one acre or greater of disturbed soil as required by law.
 - a. When General Permit coverage is required, the contractor shall submit a signed copy of the Notice of Intent (NOI) to 30 CES/CEV, for approval prior to filing.
 - b. The Contractor shall file a NOI and fee to comply with the terms of the General Permit with the RWQCB
 - 2. The Contractor shall develop a Construction Storm Water Pollution Prevention Plan (SWPPP), including Sampling and Analysis requirements, in accordance with the General Permit. The Contractor shall provide a draft and final copy of their SWPPP to 30 CES/CEV for approval and maintain a current copy of their SWPPP per the permit requirements.

3. The Contractor shall provide 30 CES/CEV, Water Resources, the Annual Certification Report by 20 August every year that the permit is active. The report is due to the RWQCB by 1 September for projects that have been active between 1 July of the current year and 30 June of the previous year and for which a Notice of Termination (NOT) has not been submitted.
4. The Contractor shall pay their annual fee before the end of their permit's billing month every year the permit is active and the NOT has not been approved. This requirement may be waived by the RWQCB upon 30 CES/CEV request.
5. The contractor shall file with the SWRCB a NOT for General Permit coverage.
 - a. Once the construction project is complete and the permits' basis of termination conditions has been met, the Contractor shall obtain 30 CES/CEV, Water Resources, approval prior to sending the NOT to the regulatory agency.
 - b. It may take several months from submittal of the NOT before the SWRCB officially terminates the permit. Post-Construction permit requirements are still enforceable until the SWRCB's official termination of a permit. This may affect your contract closure efforts and the Contract Officer should be notified.
6. A sampling and analysis program is required for storm water discharge if there are pollutants on the construction site which, when released, could cause storm water pollution. A release could be materials that are not stored in water-tight containers, materials that are spilled or materials that are spread on the soil such as soil amendments. A sampling and analysis program is required if storm water would be directly discharged to a water body that is listed as impaired for sedimentation.

D. Submittals: The Contractor shall provide the following to 30 CES/CEV.

- a. Signed copy of the NPDES General Permit NOI prior to start of any storm water permit activities on VAFB
- b. Draft and final SWPPPs.
- c. Annual Certification Report. Submit to 30 CES/CEVC by 20 Aug each year and to the RWQCB by 1 Sep each year.
- d. Notice of Termination letter from state.

1.07 HAZARDOUS WASTE REQUIREMENTS

- A. General:** The Contractor generating hazardous waste shall comply with, but not limited to: Resource Conservation and Recovery Act; 40 CFR Parts 240-299 (Protection of Environment), 49 CFR Parts 171-180 (Transportation), EPA Hazardous Waste Training Modules; Title 22 California Code of Regulations (CCR), Division 4.5 (Environmental Health Standards for Management of Hazardous Waste); the California Hazardous Waste Source Reduction and Management Act of 1989 (Senate Bill 14); 30 SW Plans, 32-4002-A, Hazardous Materials Emergency Response Plan, and 32-7043-A, Hazardous Waste Management Plan.
- B. Disposal on VAFB:** The Contractor shall dispose of all hazardous waste generated on VAFB through the Government's Consolidated Collection Accumulation Point (CCAP) contractor. The CCAP will assist the generator with waste classification prior to wastes being generated and provide review of shipping documents in order to ensure hazardous waste regulations are strictly adhered to.

- C. Removal from VAFB:** The Contractor shall not remove any hazardous waste generated on VAFB without approval from 30 CES/CEV or their CCAP representative. Only 30 CES/CEV or their CCAP representative is authorized to sign Uniform Hazardous Waste Manifests. The Contractor shall not sign any of their own Uniform Hazardous Waste Manifests unless they have their own EPA ID number.
- D. Miscellaneous:** The Contractor shall be required to provide hazardous waste documentation, including testing and characterization, through the base CCAP in order for the Government to accept, properly track, report, and dispose of all the hazardous waste generated on VAFB.
1. The Contractor shall be responsible for all costs and management processes associated with the proper site management, Site-Specific Contingency Plan, Spill Control and Cleanup Equipment/Supplies, profiling, accurate waste characterization, temporary site storage areas, containerization, labeling, obtaining drum numbers, transportation to the CCAP facility, and the implementation of source reduction measures prior to the CCAP processing the Contractor's hazardous waste through the CCAP. The Contractor is responsible for their hazardous waste management until their waste is delivered and signed over to the CCAP.
 2. The contractor shall complete all required hazardous waste training requirements for their hazardous waste site management. This can be completed through 30 CES/CEV's training program or the EPA hazardous waste training modules available for your site Collection Accumulation Point (CAP) / Satellite Accumulation Point (SAP) managers. If the Contractor uses the EPA training modules for their CAP / SAP hazardous waste training, then the Contractor shall provide a copy of the signed training module completion to 30 CES/CEV, Hazardous Waste Manager, and keep a copy with the Contractor's Environmental Protection Plan or CAP / SAP authorization letter to show proof of completed required hazardous waste training. The contractor shall also attend a onetime training with the CCAP contractor to review hazardous waste turn in procedures. This training is called CAP/SAP turn in training and is offered on the third Tuesday of every month. If unable to make this training, special arrangements may be made at the approval of the Hazardous Waste Program Manager.
 3. For new hazardous waste accumulation sites, the Contractors shall submit an authorization request to 30 CES/CEV in order to establish a CAP/SAP as required by the 30 SW Plan 32-7043-A, Hazardous Waste Management Plan, Appendix 4. CEV will provide a letter of authorization and conduct a site visit to ensure all waste generation compliance concerns are communicated.
- E. 30 SW Plan 32-7043-A:** The Contractor shall provide a "Certification of Hazardous Waste Compliance" on company letter head to the Contracting Officer for 30 CES/CEV indicating that the Contractor shall comply with the 30 SW Plan 32-7043A, Hazardous Waste Management Plan for all the VAFB hazardous waste activities. The Contractor can include their certification in their Environmental Protection Plan.
1. The Contractor shall comply especially with the Hazardous Waste Generator's Responsibilities in 30 SW Plan 32-7043-A, Hazardous Waste Management Plan, Basic Plan.
 2. The Contractor shall comply especially with the Hazardous Waste Site Storage Timelines and criteria in 30 SW Plan 32-7043-A, Hazardous Waste Management Plan, Appendix 4, Hazardous Waste Accumulation.
 3. The Contractor shall comply especially with the construction procedures in 30 SW Plan 32-7043-A, Hazardous Waste Management Plan, Appendix 12, Special Topics, "Construction".
 4. The Contractor shall have access to and maintain a copy (electronic or hard copy) of the latest 30 SW Plan 32-7043-A, Hazardous Waste Management Plan, onsite for each hazardous waste accumulation area under the contractor's purview.

1.08 HAZARDOUS MATERIAL (HAZMAT) REQUIREMENTS

- A. General:** The Contractor shall comply with, but not limited to: AFI 32-7086, Hazardous Materials Management, the Air Force Space Command Supplement to AFI 32-7086, and 30 SW Plans 32-7086, Hazardous Materials Management Plan.
- B. HAZMART:** Except for commodities specifically exempted by the Environmental Flight, the contractor shall first obtain approval from the Government's HAZMART for all HAZMAT (including pesticides) usage on VAFB by processing an AF Form 3952, Chemical/Hazardous Material Request Authorization. All HAZMART registered HAZMAT shall have appropriate bar codes attached. The contractor shall obtain and provide the HAZMART with Material Safety Data Sheets (MSDSs) for all materials purchased outside of the HAZMART and provide the MSDSs to the HAZMART. The HAZMART, 30 LRS/LGRMS, is located in Building 5500, "A" Bay, and can be reached at (805) 606-4721 or 606-9494.
- C. Reporting:** The contractor shall provide a monthly hazardous materials usage report to the HAZMART in a format acceptable to the HAZMART to include electronic reporting or turn-in of hazardous material bar codes. NOTE: Contractor's reporting all of their monthly hazardous materials usage through the HAZMART should meet the air emissions, EPCRA TRI, solvent usage, and HAZMAT VAFB database/report requirements.
- D. Business Response Plans:** When the Contractor manages quantities of a hazardous material in excess of California Business Response Plan reporting thresholds (generally in excess of 55 gallons for liquids, 500 pounds for solids, and 200 cubic feet for compressed gases or in excess of the threshold planning quantity [TPQ]), then the Contractor shall provide a Business Response Plan through the 30 CES/CEVV, or the Hazardous Material Manager's Contractor. If no Business Response Plan threshold is exceeded, then the Contractor shall provide a HAZMAT disclaimer form through 30 CES/CEVV Hazardous Material Manager's Contractor. Reference: 30 SW Plan 32-7086, Hazardous Material Management Plan, Chapter V, Business Response Plans, and the attachment to Chapter V with associated forms and instructions.
- E. Pesticides:** The Contractor shall comply with, but not limited to: Clean Water Act; Federal Insecticide, Fungicide, and Rodenticide Act; California Regional Water Quality Control Board permits; HQ AFSPC CEV Policy P01014, dated 24 May 2001 (NPDES permit for Pesticides); AFI 32-1053, Pest Management Program, Executive Order 13112, and the base Pest Control Management Plan.
1. Contractors using pesticides on VAFB shall obtain approval from the base Pesticide Manager, 30 CES/CEOF, phone number 605-8351, 30 CES/CEV, Water Resource Manager, and 30 CES/CEV, Natural Resources Manager prior to using any "pesticide" on VAFB. Pesticides include, but are not limited to, herbicides, fungicides, algacides, and larvicides. The contractor shall obtain approval from the Government's HAZMART for all pesticide usage by processing an AF Form 3952, Chemical/Hazardous Material Request Authorization, prior to using only DOD-approved pesticides on VAFB.
 2. The Contractor shall possess a California pest control license for the type of pesticide work being performed and type of pesticide being applied on VAFB. The Contractor shall obtain any county, local, state, or federal permits required for any pesticide work being done or pesticide materials to be used on VAFB. The Contractor shall prepare, maintain, and/or submit to the appropriate agency the required reports and/or records. The Contractor shall provide legible copies of all licenses and permits to the Pesticide Manager within 10 days of contract award and 10 days after receiving a new license or getting a license renewed.
 3. The Contractor shall record on a daily basis all pesticide products that are consumed that day. The report shall include the date, location, type of operation; target pest, pesticide used, EPA number, percent concentration, amount of concentrate, amount of finished product, units

of measure in square feet, and applicator's initials. This information shall be reported to the VAFB Pesticide Manager by the 5th of each month for the prior month's pesticide applications.

4. The contractor shall provide a monthly pesticide usage report to the base Pesticide Manager as well as to the HAZMART. Pesticides do have additional compliance requirements in addition to typical HAZMAT requirements.
5. The contractor shall not apply pesticides in or near water bodies, storm drains or channels.
6. The contractor shall only use DoD approved pesticides on VAFB.

F. Preferred Substitutions: The Contractor shall evaluate all Hazardous Material requisitions for appropriate environmentally preferred substitutions in an effort to reduce or eliminate the associated wastes at the source. These preferred products will be submitted for approval (per paragraph B). In some cases, the proposed products may not require bar-coding or subsequent reporting.

- a. As applicable to project requirements, the Contractor is required to reduce products that contain materials found on EPA's Priority Chemical Reduction List at <http://www.epa.gov/wastemin/chemlist.htm>, with immediate emphasis on reducing cadmium, lead, mercury, naphthalene, and polychlorinated biphenyls (PCBs).
- b. For cleaners, floor care products, paints & coatings, paper & newsprint, and windows & doors: <http://www.greenseal.org/findaproduct/index.cfm>
- c. For cleaning products: <http://www.epa.gov/epp/pubs/products/index.htm>

G. Submittals: The Contractor shall provide the following to the Contracting Officer for any hazardous material activities on VAFB.

1. Monthly Hazardous Material (HAZMAT) quantity usage totals.
2. HAZMAT Business Response Plan or a HAZMAT Disclaimer.

1.09 SPILL OR RELEASE AND CLEANUP REQUIREMENTS

A. General: The Contractor shall comply with, but not limited to: 30 SW Plans, 32-4002-C, Spill Prevention Control and Countermeasures Plan; 32-7043-A, Hazardous Waste Management Plan; 32-7043-E, Recoverable and Waste Petroleum Products Management Plan; 32-7086, HAZMAT Management Plan; and 32-4002-A, HAZMAT Emergency Response Plan.

B. Notification: When the Contractor has a spill or release, then the Contractor shall immediately notify 30 CES/CEV, (805) 606-1921 / 605-2015, fax (805) 734-1339, the Command Post, (805) 606-9961, and the Contracting Officer. Based on the Reportable Quantity of the contractor's spill or release, 30 CES/CEV will determine if an environmental regulatory agency Incident Release Report will need to be prepared and submitted based on the Reportable Quantity of the contractor's spill or release. (Note: If a regulatory agency incident release reporting action is required for the Contractor's spill or release on VAFB, then 30 CES/CEV is responsible to notify the appropriate regulatory agency within the mandated reporting period).

C. Reporting: When the Contractor has a spill or release, then the Contractor shall provide a copy of the Community Awareness and Emergency Response (CAER) Hazardous Materials Incident Reporting Form and any other required documentation to 30 CES/CEV, (805) 606-1921 / 605-2015, fax (805) 734-1339, for 30 CES/CEV to provide the appropriate regulatory agency's

mandatory reporting. (References: 30 SW Plan, 32-7043-A, Hazardous Waste Management Plan, Appendix 8; EPP; or 30 SW Plan, 32-4002-A, HAZMAT Emergency Response Plan).

- D. Clean-up:** The Contractor shall take immediate actions involving hazardous material spill or release to properly contain, clean up, make notifications, and provide final cleanup documentation for their spill or release. When the Contractor is unable to conduct proper cleanup activities for a spill or release, then immediate notification to the government is required. The Government reserves the right to conduct the mandatory clean up activities until the Contractor is able. All costs incurred by the Government until the Contractor is capable of taking control of the clean up activities are the sole responsibility of the Contractor.
- E. 30 SW 32-7043-A:** The contractor is responsible for the characterization and disposal of cleanup materials and/or hazardous waste generated from its spill, release, and cleanup activities. (Reference the 30 SW Plan, 32-7043-A, Hazardous Waste Management Plan).
 - 1. For generally "large" hazardous waste or hazardous material spills or releases, the Contractor shall comply with, but not limited to: 30 SW Plan 32-4002-A, Hazardous Materials (HAZMAT) Emergency Response Plan.
 - 2. For generally "small" hazardous waste or hazardous material spills or releases, the Contractor shall comply with, but not limited to: 30 SW Plan 32-7043-A, Hazardous Waste Management Plan.

1.10 ENVIRONMENTAL TRAINING REQUIREMENTS

- A.** The Contractor and their subcontractors shall provide, upon request from 30 CES/CEV, all environmental training certifications to verify compliance.
- B.** The Contractor and their subcontractors may attend, on a space available basis, 30 CES/CEV training classes to increase their environmental awareness and knowledge.

1.11 GREEN PROCUREMENT PROGRAM (GPP) REQUIREMENTS

- A. General:** The Contractor shall comply with the Government's Green Procurement Program (GPP), formerly known as Affirmative Procurement (AP), requirements include, but are not limited to: Section 6002, Federal Procurement, of the Resource Conservation and Recovery Act; (RCRA); Executive Order (EO) 13423, Strengthening Federal Environmental, Energy and Transportation Management; EO 13150, Federal Workforce Transportation; EO 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution or Use; EO 13221, Energy Efficient Standby Power Devices; AFI 32-7080, Compliance Assurance and Pollution Prevention; and 30SW Plans, 32-7080, Green Procurement Program (GPP) Plan; and 32-7042, Solid Waste Management Plan.
- B. GPP:** The Contractor's green procurement program shall use specified Environmental Protection Agency's Comprehensive Procurement Guidelines (EPA-CPG, <http://www.epa.gov/cpg/products>) materials with recycled and recovered content as the minimum standard. The Contractor shall consider other green materials and products not listed, but commonly used in industry outside of the Government as a means of further reducing hazardous waste and solid waste. The Contractor shall ensure these materials and products meet the requirements of the specifications, must not delay the progress of construction, and must not be cost-prohibitive. The Government's Green Procurement programs are mandated to use recycled and recovered materials and products identified in the EPA-CPG. The Contractor shall use the Recovered Materials Determination Form (RMDF) to document the products that fall into the Recycled Content Product categories.
- C. Mandatory Products:** Contractors shall use products made from biobased materials, rapidly renewable materials, and certified wood.

- D. **Contracts over \$100,000:** The Contractor, on completion of the contract, shall estimate the percentage of the total recovered material used in contract performance, including, if applicable, the percentage of post-consumer material content, per FAR Clause 52.223-9.
- E. **Submittals:** The Contractor shall provide the following to the Contracting Officer for any project on VAFB that contains EPA-CPG items.
 - 1. A Recovered Materials Determination Form (RMDF) (paragraph B).
 - 2. An Estimate of Percentage of Recovered Material Content for EPA-Designated Products (paragraph D).

1.12 SOLID WASTE REQUIREMENTS (Includes, Construction, Demolition, and Deconstruction)

- A. **General:** The Contractor shall comply with, but not limited to: California Integrated Waste Management Act of 1989; California Assembly Bill AB 939; HQ AFSPC CEV Policy Letter P01009, dated 30 April 2001 (Tracking and Reporting Solid Waste Disposal and Diversions); 30 SW Plans, 32-7043-A, Hazardous Waste Management Plan; 32-7080, Pollution Prevention Management Plan; and 32-7042, Solid Waste Management Plan.
 - 1. **Generation:** The Contractor shall generate the least amount of solid waste as possible, maximize pollution prevention processes, and maximize landfill diversion efforts through source reduction, reuse of materials, and recycling. All Projects will be required at minimum to divert or recycle at minimum 40% of their solid waste and 50% of their C&D waste.
 - 2. **Segregation:** The Contractor shall segregate all divertible, reusable, and recyclable materials including, but not limited to: wood; green waste; concrete; asphalt; brick; cardboard; metals; paper, plastics, glass, serviceable items, salvageable items, and clean soils so that these items can be diverted.
 - a. Waste generation is inevitable and should be managed in accordance with the P2 hierarchy - **source reduction, reuse, recycle, treatment**, and as a last resort **disposal**.
 - b. Materials that shall be recycled to the maximum amount possible include cardboard, paper, paper packaging, clean wood, pallets, beverage containers, land clearing debris, concrete, bricks, concrete masonry units, asphalt, drywall, carpet and pad, useable paint, asphalt roof shingles, rigid foam, glass, plastics, and metals from banding, stud trim, ductwork, piping, rebar, roofing, steel, iron, galvanized sheet steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.
 - 3. **Locks, Latches, and Cylinders:** Must be salvaged by turning them in to the Base Lockshop, 30 CES/CEOHV, Building 11439, extension 606-5236.
 - 4. **Recycling and Refuse Containers:** Containers located outside facilities on VAFB are intended for solid waste/ recycling associated with the VAFB mission. Materials that are generated from off base activities or by activities not associated with the VAFB mission are not acceptable.
- B. **Materials Taken to the DRMO:** The Contractor shall turn in all other serviceable or salvageable items to the Defense Reutilization and Marketing Office (DRMO). The contractor shall enter "QRP Reimbursement: 57F3875.8900 83 LW 503000 Vandenberg AFB" in block 27 on all DD 1348-1A forms turned into DRMO. The contractor shall segregate all scrap metal to the greatest extent possible. A separate DD 1348-1A shall be turned in for each metal type. Properly identify each metal type in block 17 (e.g. scrap steel, scrap aluminum etc.). The Contractor shall segregate all scrap metal into ferrous and nonferrous metals and cut, dismantle, palletize, test, or prepare documentation as required for acceptance by the DRMO.

1. **Metals:** Mixed metals that are deemed cost prohibited to properly segregate shall be delivered to the Material Diversion Center located with DRMO in building 11510.
 2. **Material Acceptance:** Should the DRMO office deem materials unsalvageable or unserviceable, the contractor is required to bring those items to the Material Diversion Center for possible reuse or recycling. Material Diversion Center staff will assess the items for usability. If the items are not accepted by the Material Diversion Center, then the contractor is required to bring those items to the Vandenberg AFB landfill for disposal.
- C. Materials Taken to VAFB Landfill:** Contractor shall only dispose of acceptable municipal solid waste at the VAFB landfill as allowed in the 30 SW Plan 32-7042, Solid Waste Management Plan and VAFB landfill Acceptance Standards requirements. Non-friable asbestos designated waste can be disposed at the VAFB landfill, contact 30 CES/CEV Asbestos manager for procedures
1. **Limitations:** VAFB landfill permit limits daily acceptance capacity to 400 tons per day and vehicle traffic to less than 100 vehicles per day. Since this capacity must be shared by all base activities and functions, all project or work efforts that generate more than 30 tons of either waste materials, or materials needing to be processed at the VAFB landfill, must provide a projected schedule to the landfill scale house 30 days before the access is needed. This requirement applies to all Air Force and Contractor work efforts.
 2. **Weeds and Animals:** Any viable noxious weed materials (cuttings, plant fragments, seeds, etc.) or dead animals must be disposed of at the VAFB Landfill using the procedures outlined in the 30 SW Plan 32-7042 Solid Waste Management Plan.
 3. **Prohibited Items:** The Contractor shall not dispose of any hazardous waste, designated waste, radioactive waste, serviceable items, salvageable items, green waste, concrete, or asphalt in the VAFB landfill. These shall be properly disposed, diverted, recycled, or reused.
 4. **Required Documents for Landfill Use:** Contractor shall provide contractual proof upon request of the VAFB landfill contractor operator that the Contractor is authorized to use the VAFB landfill. The Contractor can be authorized to use the VAFB Landfill if not specifically called out in their contract, by having the government contracting officer authorize: 1) Waste and Recycling Collection (this will allow the contractor to request industrial waste and recycling containers and collection for their job site) , 2) Hauling Privileges (this will allow the contractor to haul to the landfill waste and recyclables acceptable at the VAFB landfill).
 5. **Landfill Access Ticket:** The Contractor shall provide, for every load destined for the VAFB landfill, a signed "Landfill Access Ticket". A Contractor's signed "Landfill Access Ticket" shall include, but not limited to, the following information: the contract number; prime contractor's name and phone number; subcontractor's name and phone number (as applicable); source where the material was generated: project name and facility name or number. The "Landfill Access Ticket" shall be signed by the Government Contract Representative, include name and phone number, or the contractor's representative, if authorized by the government.
 6. **Material Acceptance:** The Contractor's solid waste loads or items not acceptable at the VAFB landfill or Recycling and Division Center will become the property of the Contractor and shall be disposed of off-base at no cost to the government.
 7. **Unique Acceptance Circumstances:** The Contractor shall first obtain written approval from the landfill Service Contract Manager or 30 CES/CEV and Government Contracting Officer.
 8. **Submittals:** The Contractor shall submit monthly reports to the contracting officer for the 30 CES/CEV, Solid Waste Manager not later than the 5th calendar day after the end of the month. The reports shall contain the weight, type and quantity of Solid Waste and/or Construction & Demolition Debris (mixed solid waste, scrap metal, scrap lumber, inert C&D,

non-inert C&D, green waste, mixed paper, soil, wood debris, tires, card board, etcetera.) taken off base for recycling, sale, or disposal. Copies of the weight tickets, sales receipts, and disposal certificates, shall be included in the submittal when available. Contractor must identify where each type of material was taken for processing or disposal. Any materials shipped out of state must be annotated.

1.13 POLYCHLORINATED BIPHENYLS (PCBS) MANAGEMENT REQUIREMENTS

- A. General:** The Contractor shall comply with, but not limited to: Toxic Substances Control Act (TSCA), 40 CFR 761 (PCB Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions); and 30 SW Plans, 32-7043-A, Hazardous Waste Management Plan, Appendix 12, Special Topics; 32-7086, Hazardous Materials Management Plan, Chapter IX, PCB Management.
- B. PCB Generated on VAFB:** The Contractor shall coordinate all PCB waste disposal documentation through the base CCAP contract operator prior to PCB waste handling.
- C. Management:** The Contractor shall, if required, test all electrical equipment removed for the presence of PCBs or the potential to contain PCBs. The Contractor shall manage the PCB waste or potential PCB waste as a PCB waste until it is determined that the items do not contain PCBs. The Contractor shall pay for testing and laboratory analyses. The Government will make every effort to locate and identify all PCBs prior to bidding, however this is not always possible. If positive PCB identification has been made, then the Contractor shall coordinate with 30 CES/CEV prior to handling any PCB waste or PCB contaminated equipment.

1.14 RADIOACTIVE OR RADIONUCLIDES MATERIALS REQUIREMENTS

- A. General:** The Contractor shall comply with, but not limited to: 40 CFR Part 61, 190, 191, and 192; 10 CFR 19; 10 CFR 20; 10 CFR 36; 10 CFR 39; 20 CFR 21; Air Force Instruction (AFI) 40-201, Managing Radioactive Materials In The USAF; 30 SW AFI 40-101, Managing Radioactive Materials; and 30 SW Plan 32-7043-A, Hazardous Waste Management Plan (especially Appendix 12, Special Topics titled Radioactives / Radionuclides).
- B. Transporting Material onto Base:** The Contractor shall contact the Contracting Officer, via the Vandenberg Radiation Safety Officer, 30 MDOS/SGOAB, in order to submit the appropriate documents and permits. They are required at least 30 days prior to bringing the radioactive material or equipment containing radioactive material onto VAFB. Radioactive or Radionuclide materials brought onto VAFB are subject to inspections by the Nuclear Regulatory Commission. The Contractor shall support all regulatory agency inspections on VAFB.
- C. Radioactive Exit Signs:** The Contractor shall contact the Vandenberg Radiation Safety Officer, 30 MDOS/SGOAB in order to determine proper disposal requirements of these signs. These exit signs cannot be disposed of in the VAFB landfill or the hazardous waste CCAP. The contractor shall not install any new radioactive exit signs on VAFB.

1.15 LEAD BASED PAINT (LBP) MANAGEMENT REQUIREMENTS

- A. General:** The Contractor shall comply with, but not limited to: Title 17, CCR, Division 1, Chapter 8, Accreditation, Certification, and Work Practices For Lead-based Paint and Lead hazards; 30 SW Plans, 32-1002, Lead-Based Paint Management Plan; 32-7042, Solid Waste Management Plan; Plan 32-7043-A, Hazardous Waste Management Plan (especially Appendix 12, Special Topics); and Specification Section 02084, Lead based Paint Abatement and Disposal.
- B. Management Plan:** The Contractor shall submit the LBP Management Plan for approval to 30 CES/CEV prior to the start of any LBP work on VAFB.

- C. Encountering LBP:** If unspecified LBP is encountered during the construction phase, the Contractor shall cease work and make arrangements for sampling of the material prior to resuming. The Government will make every effort to locate and identify all LBP prior to bidding, however this is not always possible. These materials are often hidden and cannot be discovered until demolition activities begin or after the start of construction activities. The Contractor shall not resume LBP work until the sampled material results are known and the LBP Management Plan has been submitted, updated, and any compliance actions required or approved by 30 CES/CEV.

1.16 ASBESTOS CONTAINING MATERIALS MANAGEMENT REQUIREMENTS - SUPPLEMENTAL

- A. General:** The Contractor shall comply with the following regulations:

1. California Health and Safety Code Section 25143.7
2. 40 CFR Part 61 Subpart M (National Emission Standards for Asbestos)
3. Santa Barbara County Air Pollution Control District (SBCAPCD) Rule 1001
4. 40 CFR Part 763, Asbestos-Containing Materials in Schools
5. 29 CFR 1926.1101, Safety and Health Regulations for Construction
6. 8 California Code of Regulations, Subchapter 4, Section 1529, Asbestos
7. 8 California Code of Regulations, Subchapter 2, Section 341.15
8. 22 California Code of Regulations, Sections 66260-66270, Hazardous Waste Regulation
9. 40 CFR Part 260-270, Hazardous Waste Regulations
10. 30 SW Plan, 32-7043-A, Hazardous Waste Management Plan
11. 30 SW Plan 32-7042, Solid Waste Management Plan
12. 30 SW Plan 32-1052-A, Asbestos Management Plan
13. 30 SW 32-1052-B, Asbestos Operating Plan
14. Specification Section 02075, Removal and Disposal of Asbestos Materials
15. Specification Section 02081/0282, Asbestos Abatement-Small Scale/Large-Scale

- B. Asbestos Hazard Response Act (AHERA):** Federal and contractor employees that affect asbestos processes in construction shall possess current certification and training in accordance with AHERA described in 40 CFR 763.92 and Appendix C, Asbestos Model Accreditation Plan.

- C. VAFB Landfill usage:** If contract permits, non-friable designated waste asbestos can be disposed at the VAFB landfill if the non-friable asbestos-containing materials (ACM) is double wrapped with 6-mil plastic. Contact 30 CES/CEV in order to request a disposal manifest. The disposal contractor shall provide 30 CES/CEV with a copy of the signed disposal manifest and landfill receipt.

- D. Miscellaneous:** The Contractor shall be competent with all relevant asbestos survey observations, results, and findings prior to the start of asbestos activities on VAFB. The government will make every effort to locate and identify all asbestos prior to contract award, however this is not always possible.

1. The Contractor shall make a commitment not to undertake any general construction work or any other activities that would break-up, dislodge, or similarly disturb ACM until a licensed asbestos Contractor has been approved.
2. The Contractor shall conduct an asbestos safety conference for construction projects prior to the start of actual work. The asbestos safety conference shall include representatives of the contracting agency, 30 CES/CEV, the employer, employees, and employee representatives.
3. In the discussion of the Contractor's asbestos safety program, the Contractor shall include, but not limited to: methods, devices, processes, practices, conditions, or activities the Contractor intends to use in providing a safe place of work.

4. The Contractor shall maintain written documentation of topics discussed and persons attending these asbestos safety meetings, and upon request, provide a copy to the Contracting Officer.
 5. The Contractor's competent person shall meet the definitions described in both 29 CFR 1926.1101(b) and 29 CFR 1926.32(f). 29 CFR 1926.32(f) defines the competent person as one who is capable of identifying asbestos hazards, capable of controlling the asbestos exposure, and possesses the authority to eliminate exposure to asbestos as specified in 29 CFR 1926.32(f). The Contractor's competent person shall be trained according to the criteria specified in the EPA's Model Accreditation Plan, which is described in 40 CFR 763 for the contractor/supervisor.
- E. Work Plan:** The Contractor shall submit, for approval, the Site-Specific Asbestos Work Plan to the 30 CES/CEV Asbestos Manager prior to the start of any asbestos work on VAFB. The Contractor shall update the Site-Specific Asbestos Work Plan as required. It is a violation of California state law to design and/or provide asbestos abatement specifications and also perform the asbestos abatement associated with the design and/or specification. The Site-Specific Work Plan shall include, at a minimum, the following:
1. Name and contact information of all parties involved with the project, including general contractor, asbestos abatement contractor, and project monitor. The asbestos project design shall be performed by an accredited AHERA Asbestos Abatement Project Designer. The asbestos contractor/supervisor shall be accredited by AHERA.
 2. Description of methods and procedures for handling, removal, and disposal of ACM as well as the quantities of ACM to be removed
 3. Statement of compliance IAW OSHA regulation 29 CFR 1926.1101 and Title 8 CCR 1529
 4. Air monitoring plan (40 CFR 763)
 5. Description of engineering controls, equipment staging, containment construction, decontamination units and operational guidelines, clean room, equipment room, negative pressure air flow devices, and containment certification by the project monitor
 6. On-site safety and health plan, training certificates, medical and respiratory fit test records, material safety data sheets, work place entry & exit procedures, emergency contact list, California OSHA posters, OSHA Notification procedures, entry/exit logs, and air sampling monitoring results
 7. Site security plan
 8. Emergency contingency plan and contact information
 9. Personnel protective equipment list
 10. Description of work clearance and final inspection procedures
- F. Encountering ACM:** When suspected ACM is encountered during the construction phase, then the Contractor shall immediately cease work and make arrangements for sampling of the material prior to resuming work. The Contractor shall be responsible for identifying suspected ACM encountered during activities that were not previously identified in the asbestos survey. An updated and/or approved site specific asbestos abatement plan shall be required in this case.
- G. Air monitoring:** Required for all VAFB asbestos abatement contracted activities and shall meet the minimum criteria specified in 40 CFR 763, Appendix A. Air monitoring activities will include, at

a minimum, a baseline analysis, work area analysis during abatement activities, and outside air monitoring. California Asbestos Consultants/California Site Surveillance Technicians shall be responsible for ensuring compliance of Contractor's asbestos abatement activities.

1.17 ABOVE GROUND STORAGE TANKS (AST) REQUIREMENTS

- A. General:** The Contractor shall comply with, but not limited to: SBCAPCD rules and regulations; AFI 23-204, Organizational Fuel Tanks; AFI 32-7044, Storage Tank Compliance; 30 SWI 32-702, Environmental Management Air Emission Inventories; 30 SW Plans, 32-4002-C, Spill Prevention Control and Countermeasures Plan (especially Appendix 3, Figure 3-1 and 3-2); 32-7041-C, Wastewater Management Plan; 32-7043-E, Recoverable and Waste Petroleum Products Management Plan; and 32-7086, Hazardous Materials Management Plan.
- B. Installing, modifying, or removal:** The Contractor must provide the following information to 30 CES/CEV for approval:
1. Contract and/or Civil Engineer project number and emergency point of contact
 2. Time period the AST is expected to be in operational use
 3. Size and type of the AST and type of material to be used in the AST
 4. Maps to include site location, include GPS information if available
 5. Information on secondary containment (capacity equal to or greater than the tank)
 6. Overfill protection features (alarm, automatic shut off system, and fill sump)
 7. Access and security of the AST and spill/release cleanup procedures
 8. Spill Prevention Plan and Rainwater Release Plan for secondary containment system (Reference the 30 SW Plan 32-7041C, Wastewater Management Plan, Appendix. 11, Discharge to Grade Program and Characterization Form).
- C. PTO and ATC requirements:** When the Contractor uses a gasoline AST of 250 gallons or greater capacity, the Contractor shall coordinate with 30 CES/CEV prior to acquiring a PTO and/or ATC.
1. The Contractor shall provide a 30 SW Form 160, Air Quality Recordkeeping Form, Fuel Storage Tanks, to the Contracting Officer through 30 CES/CEV.
- D. Spill Prevention Control and Countermeasure Plan (SPCC):** The Contractor shall provide a site specific SPCC to the Contracting Officer through, 30 CES/CEV, if any combination of AST, 1,320 gallons or greater capacity, are used for activities on VAFB.
- E. Reporting:** The Contractor shall comply with release or spill procedures and immediately report any releases per 30 SW Plan 32-4002-A, the Hazardous Materials (HAZMAT) Emergency Response Plan, Chapter 4, Response Functions, Section A, Initial Notification of Response Functions, and the 30 SW Plan 32-4002-C, SPCC Plan, Appendix 3, paragraph 9, Spill Response.
- F. Submittals:** The Contractor shall provide the following to the Contracting Officer for approval through 30 CES/CEV prior to the start of any Storage Tank activities on VAFB.
1. AST technical information
 2. 30 SW Form 160

1.18 UNDERGROUND STORAGE TANKS (UST) REQUIREMENTS

- A. General:** The Contractor shall comply with, but not limited to: Clean Water Act; Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); California Regional Water Quality Control Board; Santa Barbara County Air Pollution Control District rules and regulations; 30 SWI 32-702, Environmental Management Air Emission Inventories; AFI 23-204, Organizational Fuel Tanks; AFI 32-7044, Storage Tank Compliance; 30 SW Plans, 32-4002-C, Spill Prevention Control and Countermeasures Plan (especially Appendix 3); 32-7041-C, Wastewater Management Plan; and 32-7086, Hazardous Materials Management Plan.
- B. Coordination:** Prior to installing, modifying, or removing a UST, the Contractor shall obtain approval from and provide required technical information to 30 CES/CEV, Storage Tank Manager and Installation Restoration Manager.

1.19 SOIL CONTAMINATION REPORTING REQUIREMENTS

- A. General:** The Contractor shall comply with, but not limited to: Clean Water Act; Resource Conservation and Recovery Act; Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); California Health and Safety Codes; California Regional Water Quality Control Board.
- B. Encountering Contaminated Soil and USTs:** The Contractor shall report to 30 CES/CEV any unidentified potential or actual contaminated soil, UST, associated UST piping, and oil-based soil beneath storage tanks. The Contractor shall characterize, through sampling, and dispose of the soil or UST and its parts. The Contractor shall provide sample results to prove that the contaminated soil was removed. The Contractor shall obtain government approval prior to backfilling all "clean" excavated areas with clean fill material. The Contractor shall immediately notify the Contracting Officer of this situation. The Contractor shall take the appropriate actions to protect their personnel working around the area identified as potential or actual contaminated soil.

1.20 HISTORICAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES REQUIREMENTS

- A. General:** The Contractor shall comply with, but not limited to: the National Historic Preservation Act of 1966, Archaeological Resources Protection Act of 1979, Native American Graves Protection and Repatriation Act of 1990, American Indian Religious Freedom Act of 1978, State of California Health and Safety Statutes; and AFI 32-7065, Cultural Resources Management.
- B. Base Historic Preservation Officer (BHPO):** The Contractor shall not disturb any historical, archaeological, or cultural sites or collect any prehistoric and/or historic artifacts on VAFB without proper authorization from 30 CES/CEVPC, BHPO.
- C. Cultural Resources:** Cultural resources are sites, structures, features, artifacts, and other human derived items. These include, but are not limited to: arrowheads and other flaked stone tools, beads, ornaments, sacred objects such as charmstones, hammerstones, stone bowls, bone tools, human remains, non-human bone, charcoal concentrations, unnatural concentrations of stone, shellfish remains, fossils, asphaltum, old bottles, cans, coins, buttons, antiques, foundations, early military materials, and other historical items. As a general rule, any cultural resource item over 50 years of age is protected. If any previously unidentified materials of these types are found individually or in concentrated deposits within the project area, the Contractor shall report these to the on-site CEV environmental representative archaeological monitor, CEVPC, or the BHPO. Cultural resources are not to be collected or disturbed without approval from the on-site archaeological monitor or the BHPO.
- D. Avoidance and Mitigation:** The Contractor is responsible, unless otherwise noted, for implementation of any cultural resources avoidance or mitigation measures assigned to projects as a condition of approval for their activities. These measures may include, but are not limited to,

literature searches, archaeological and American Indian monitoring, flagging or fencing to protect resources, avoidance of resource areas, archaeological testing, data recovery, and report preparation. The Contractor shall coordinate with the BHPO who will provide Statements of Work for contracted archaeological work that implements project specific required mitigation measures.

- E. Encountering Cultural Resources:** The Contractor shall cease work if undocumented cultural resource items are found during excavation, grading, or other ground-disturbing activities. Work must be temporarily suspended within 100 feet of the discovery until it has been properly evaluated and secured. In some instances, the Contractor may be directed to protect the immediate discovery area with temporary fencing. The Contractor or their Archaeological Monitor shall immediately report any discovery of previously unidentified cultural resources to the BHPO.

1.21 PROTECTION OF FISH, WILDLIFE, PLANTS, AND NATURAL RESOURCES REQUIREMENTS

- A. General:** The Contractor shall comply with, but not limited to: the National Environmental Policy Act (NEPA); the Endangered Species Act; the Marine Mammal Protection Act, the Migratory Bird Treaty Act, Executive Order 11990, Protection of Wetlands; Executive Order 13112, Executive Order 13186, California Coastal Act of 1976; AFI 32-7064, Conservation and Management of Natural Resources; and Vandenberg's Integrated Natural Resources Management Plan. The Contractor shall keep activities under surveillance and control to minimize disturbances and damage to the natural resources on VAFB.
- B. Notification:** The Contractor shall immediately notify 30 CES/CEVNN, Chief of Natural Resources, if the Contractor or their biological monitors suspect the presence and impacts to any federally listed endangered or threatened species or their habitat. Vandenberg currently manages for 15 threatened and endangered species, including but not limited to the California red-legged frog, unarmored three-spine stickleback, western snowy plover, California least tern, Gaviota tar plant, and fairy shrimp.
- C. Encountering Natural Resources:** The Contractor shall not feed wild animals or cause litter (especially from lunch activities). The Contractor shall not travel in unauthorized areas in order to avoid disturbing sensitive resources or potentially coming in contact with ticks, hantavirus, wild animals, unstable coastline areas, and unsafe water situations.
- D. Nesting Sites:** The Contractor shall immediately notify 30 CES/CEV of any nesting sites for avian species, nesting sites containing eggs and/or chicks, or roosting bats.
- E. Disturbance of Plants:** Contractors shall adhere to requirements stated in the 332 process with respect to disturbance or removal of all plants and trees on VAFB. Mitigation may be required.

1.22 LANDSCAPING REQUIREMENTS

- A. General:** The Contractor shall comply with, but not limited to: the White House Memorandum, Environmentally and Economically Beneficial Practices on Federal Landscaping Grounds, 26 April 1994; AFI 32-7064, Integrated Natural Resources Management; 30 SW Storm Water Management Plan; 30 SW Plan 32-7041-B, Storm Water Pollution Prevention Plan; 30 SW Plan 32-7041-C, Wastewater Management Plan; USAF Landscape Design Guide; Executive Order 13112; Vandenberg Facility Excellence Plan; and Vandenberg's Base Landscaping Guidelines.
- B. Restoration:** The Contractor shall restore all landscape features damaged during construction activities to the site's original or improved condition. In unimproved areas, the seed mix shall be approved by 30 CES/CEV Natural Resources Section.
- C. Stormwater Protection:** The Contractor shall implement storm water best management practices during landscaping activities to prevent unauthorized storm water discharges off site.

- D. Water Efficient Landscaping:** Contractor and government shall select plants that reduce water consumption by 50% or greater.

1.23 ENERGY USAGE REQUIREMENTS

A. General: The Contractor shall comply with, but not limited to: the Energy Policy Act (EPACT), along with its amendments to the National Energy Conservation Policy Act, as specified in Subtitle F of EPACT 1992 and EPACT 2005; Executive Order (EO) 13423, Strengthening Federal Environmental, Energy and Transportation Management; EO 13221, "Energy Efficient Standby Power Devices; 30 SW Plans 32-7080, Green Procurement Program (GPP) Plan; 32-7042, Solid Waste Management Plan; and the Vandenberg Energy Management Plan.

B. Optimize Energy Performance: Use Energy-Efficient Products listed under the Energy Star® and the Federal Energy Management Program (FEMP) Energy-Efficient Products lists, including appliances and equipment used in building construction and renovation projects, computers, peripherals, fax machines and Low Stand-by Power items. Also, generating power from renewable resources must also be implemented, as applicable to the program requirements. Product information and sources of supply are available at the following links:

(a) **Energy-efficient products and services:** [Energy Star®](#), [Low Standby Power](#) and [Federal Energy Management Program \(FEMP\) Energy Efficiency](#)

(b) **Renewable energy sources:** [DOE Energy Efficiency and Renewable Energy](#).

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)