

ATTACHMENT E – NOTICE OF INTENT

RENEWAL

ORDER WQ 2014-0174-DWQ
GENERAL PERMIT NO. CAG990002

RECEIVED
JUL 13 2015
CIWQS 782621
DIVISION OF WATER QUALITY

STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
(NPDES) PERMIT FOR DISCHARGES FROM UTILITY VAULTS AND UNDERGROUND
STRUCTURES TO WATERS OF THE UNITED STATES

I. NOTICE OF INTENT STATUS (See Instructions)

MARK ONLY ONE ITEM	1. <input type="checkbox"/> New Discharger	2. <input checked="" type="checkbox"/> Existing Discharger	WDID# 2000U000051
	3. <input type="checkbox"/> Change of Information: WDID # _____		
	4. <input type="checkbox"/> Change of ownership or responsibility: WDID# _____		

II. OWNER/OPERATOR (If additional owners/operators are involved, provide the information in a supplemental page.)

A. Name City Light & Power, Inc.		Owner/Operator Type (Check One)	
B. Mailing Address 260 Hangar Avenue		1. <input type="checkbox"/> City	2. <input type="checkbox"/> County
C. City Travis Air Force Base		3. <input type="checkbox"/> State	4. <input type="checkbox"/> Gov. Combo
D. County Solano		5. <input checked="" type="checkbox"/> Private	
E. State California		F. Zip Code 94535	
G. Contact Person Barbara Ely		I. Phone (707)639-4067	
H. Title Installation Manager			
J. Email Address bge@clpinc.com			

Additional Owners _____

III. BILLING ADDRESS (Enter information only if different from II. above)

Send to: <input type="checkbox"/> Owner/Operator <input type="checkbox"/> Other	A. Name	B. Title		
	C. Mailing Address			
D. City	E. County	F. State	G. Zip Code	

IV. RECEIVING WATER INFORMATION

<p>A. Attach a project map(s) that shows (1) the service area within the a specific Regional Water Board boundary and maps of(2) the corresponding major surface water(s) bodies and watersheds to which utility vault or underground structure water may be discharged. Map features must also include ASBS boundaries, MS4 discharge points to the ASBS, and major roadways.</p> <p>Please See Attachments</p>
<p>B. Regional Water Quality Control Board(s) where discharge sites are located List the Water Board Regions where discharge of wastewater is proposed, i.e. Region(s) 1, 2, 3, 4, 5, 6, 7, 8, or 9: Region 2</p>

V. LAND DISPOSAL/RECLAMATION

The State Water Resources Control Board's water rights authority encourages the disposal of wastewater on land or re-use of wastewater where practical. You must evaluate and rule out this alternative prior to any discharge to surface water under this Order.

Is land disposal/reclamation feasible for all sites? Yes No

Is land disposal/reclamation applicable to a portion of the total number of sites? Yes No

If **Yes** to one or both questions, you should contact the Regional Water Board. This Order does not apply if there is no discharge to surface waters. If **No** to either or both questions, explain:

10% of utility vault discharges occur on an airfield without the potential for discharge on land.

VI. VERIFICATION

Have you contacted the appropriate Regional Water Board or verified in accordance with the appropriate Basin Plan that the proposed discharge will not violate prohibitions or orders of that Regional Water Board? Yes No

VII. TYPE OF UTILITY VAULT OR UNDERGROUND STRUCTURE (Check All That Apply)

Electric Natural Gas Telecommunications Other: _____

VIII. POLLUTION PREVENTION PLAN CONTACT INFORMATION

Each Discharger is required to provide a copy of their PLAN with their completed NOI. The PLAN requirements are provided in Section VII.C.3 of the Order. In the space below, provide the contact information for the person responsible for the development of the PLAN.

A. Company Name Department of The Air Force		B. Contact Person Luann Tetirick	
C. Street Address Where PLAN is Located HQ 60th Mobility Wing on TAFB		D. Title of Contact Person Water Program Manager	
E. City Travis Air Force Base	F. County Solano	G. State CA	H. Zip Code 94535
I. Phone (707)424-3587	J. Email Address luann.tetirick@us.af.mil		

IX. DESCRIPTION OF DISCHARGE(S)

Describe the discharge(s) proposed. List any potential pollutants in the discharge. Attach additional sheets if needed.

The utility vaults on Travis Air Force Base (TAFB) contain electrical equipment. This equipment could contain insulating oils or minerals. Occasionally, these vaults become inundated with water due to stormwater runoff, or the seepage of groundwater through cracks in the vault structure. The risk of contaminating the water from the electrical equipment itself is negligible due to regular inspections and maintenance.

However, due to the fact that the vaults are not air-tight, it is possible for external pollutants from automobiles, traffic accidents or other emergency situations, such as damaged transformers, to contaminate the water. These pollutants include:

- Traces of petroleum products (oil; fuel; grease)
- Organic matter (mud; silt; pesticides)

Although, the discharge water is typically free from pollutants and the risk of contamination is low; however, accidental spills or emergency situations may occasionally arise.

Furthermore, City Light & Power (CLP) routinely inspects its underground structures to ensure that the vaults are free of potential contaminants. They are maintained to prevent malfunctions of the underground equipment. CLP policies are in place to ensure proper inspections, equipment testing, and preventative maintenance take place. The sites are routinely inspected to ensure that the equipment is operating properly and is maintained to be kept free from defects (such as cracks, leaks, etc.).

Discharge is always conducted onto a vegetated area, without the potential for drainage into a surface water, whenever possible.

X. REMINDERS

- | | | |
|--|---|---|
| A. Have you included service territory/watershed map(s) with this submittal?
Separate maps must be submitted for each Regional Water Board where a proposed discharge will occur. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| B. Have you included payment of the filing fee (for first-time enrollees only) with this submittal? | <input type="checkbox"/> Yes | <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A |
| C. Have you included your PLAN? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |

XI. 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 ensure 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, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment."

A. Printed Name: Barbara Ely

B. Signature:  Digitally signed by Barbara Ely
DN: cn=Barbara Ely, o=CLP, ou, email=bge@clpinc.com, c=US
Date: 2015.06.08 07:45:25 -07'00'

C. Date: 6/8/15

D. Title: Installation Manager

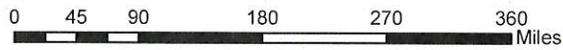
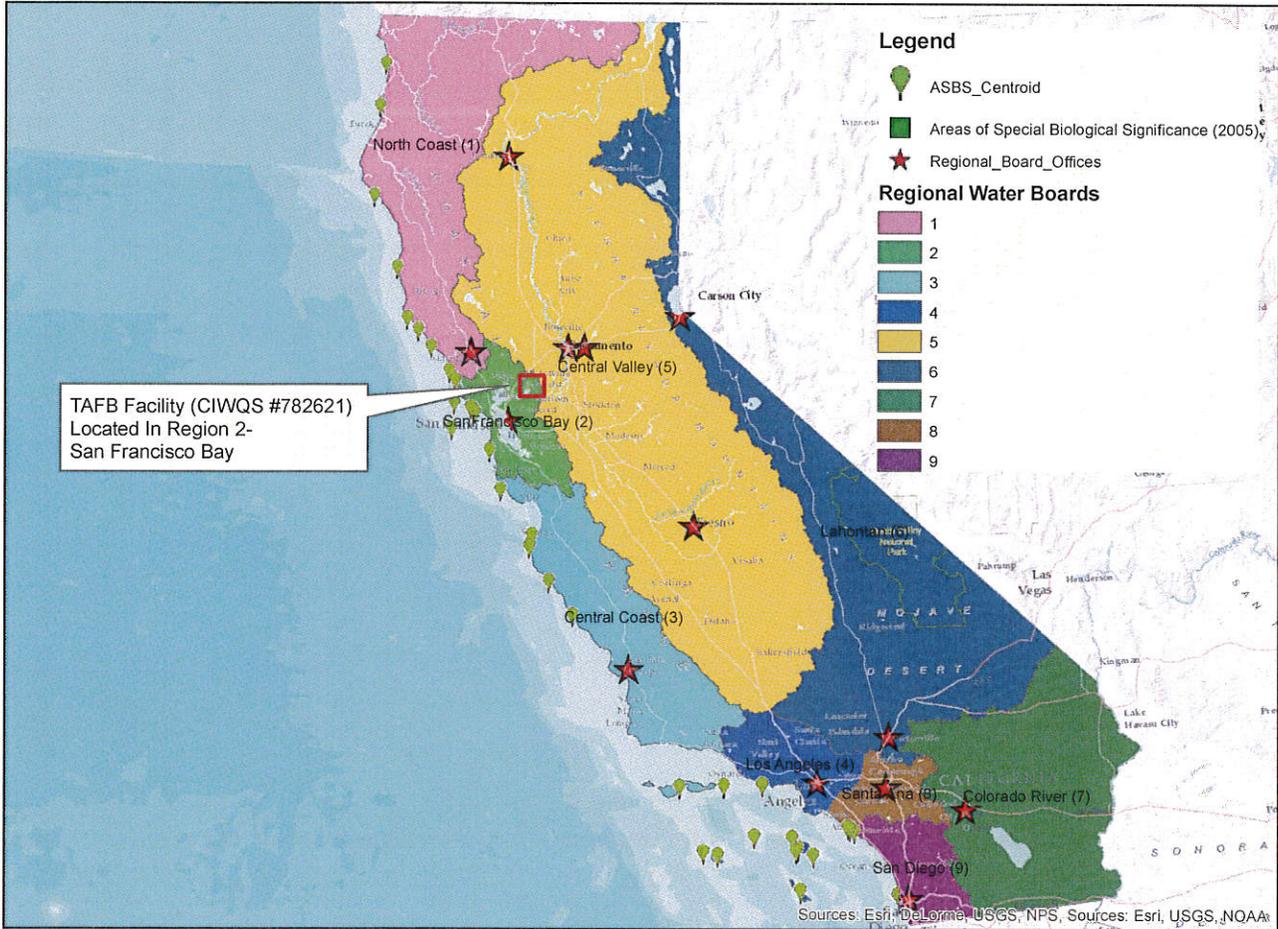
PLEASE SUBMIT THE NOI, FIRST ANNUAL FEE, PLAN, AND MAP
TO THE FOLLOWING ADDRESS:

**UTILITY VAULTS NOI
NPDES UNIT
DIVISION OF WATER QUALITY
STATE WATER RESOURCES CONTROL BOARD
P.O. BOX 100
SACRAMENTO, CA 95812-0100**

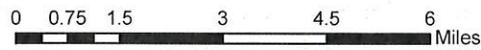
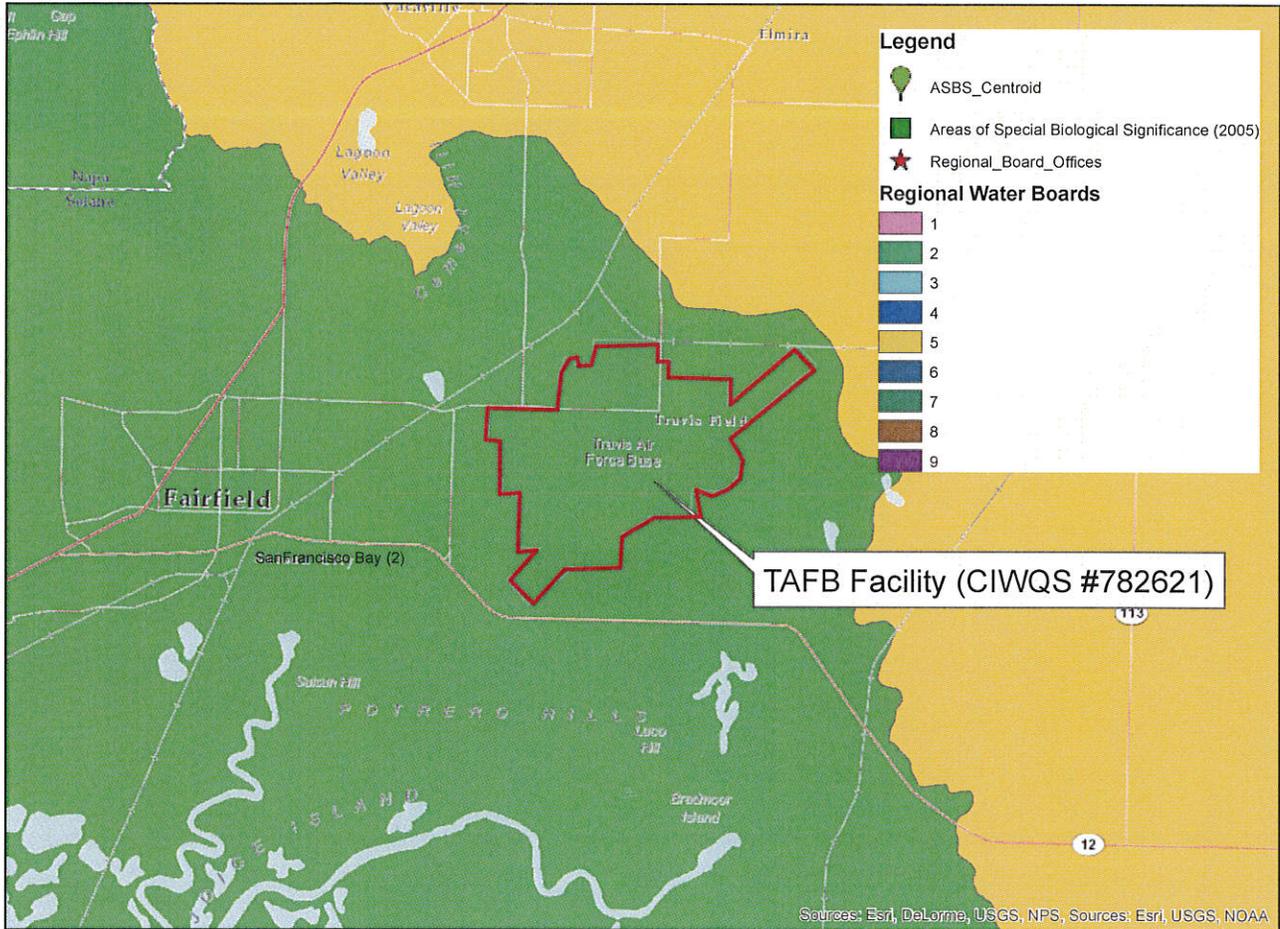
STATE USE ONLY

WDID:	Regional Board Office	Date NOI Received:	Date NOI Processed:
Case Handler's Initial:	Fee Amount Received: \$	Check #:	

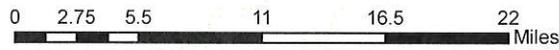
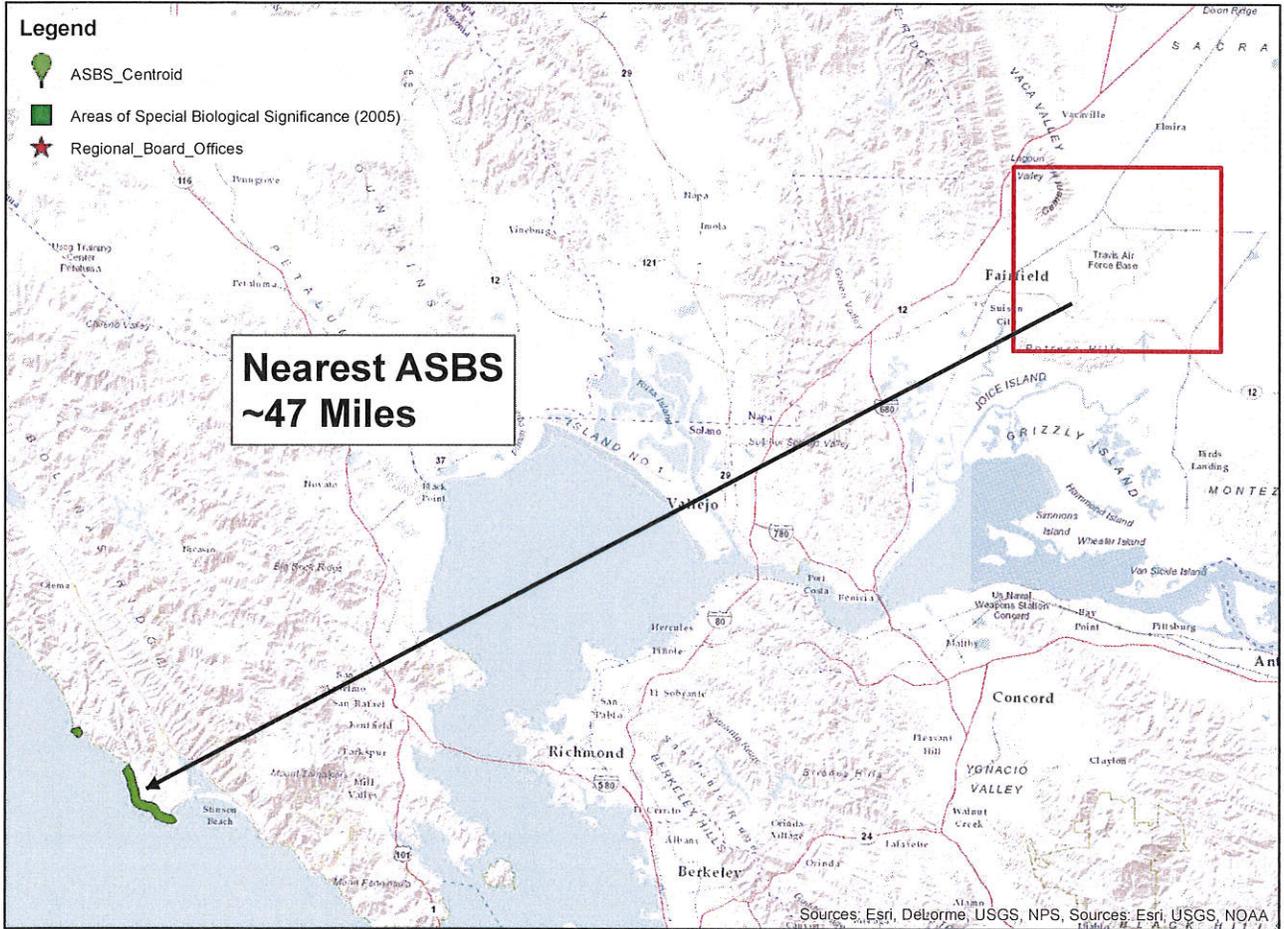
Facility Service Area- Regional Water Board #2



Facility Service Area- Regional Water Board #2

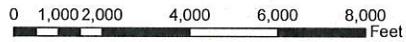
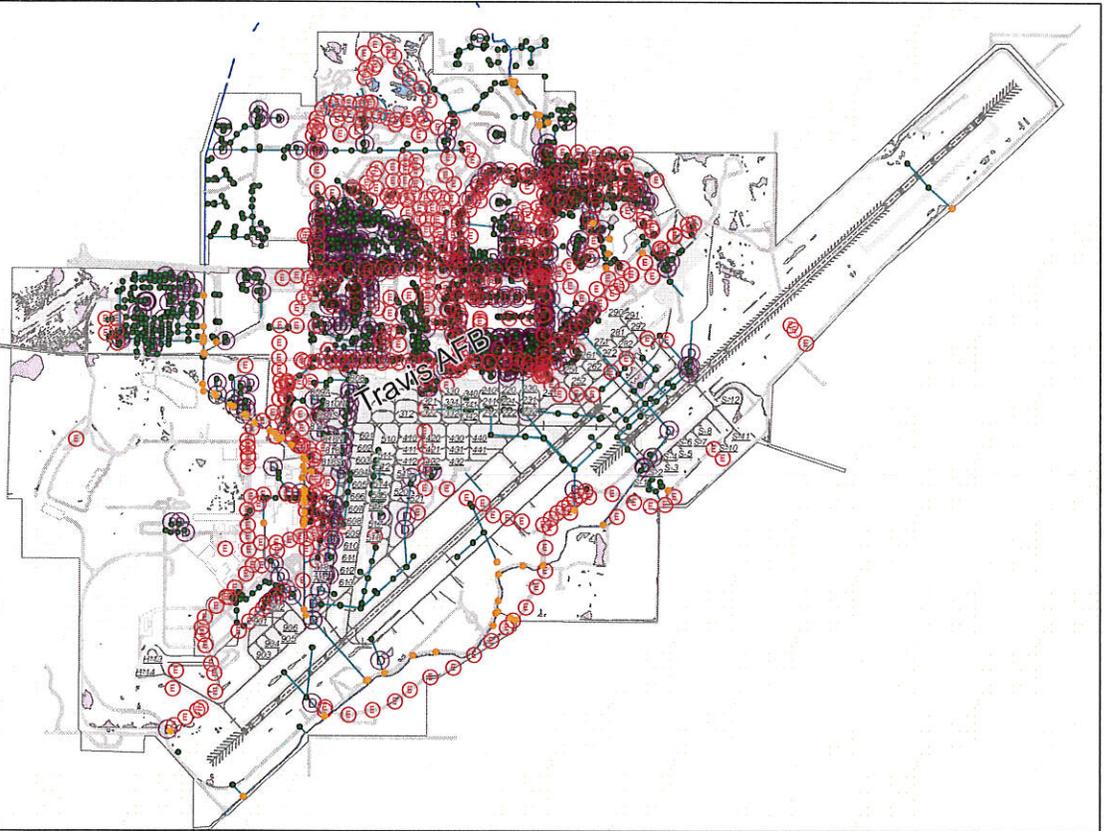


Facility Service Area- Regional Water Board #2



MS4 & Utility Vault Map

- Legend**
- Storm Sewer Discharge Point
 - ⓔ Electric Handhole
 - ⓔ Electric Manhole
 - Storm Sewer Inlet Point
 - ⓓ Storm Sewer Junction Point
 - Storm Sewer Line
 - Airfield Surface
 - Wetlands
 - Surface Water Course
 - Surface Water
 - AFB
 - Golf Course
 - Roads
 - Vehicle Parking
 - Vehicle Driveway



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 60TH AIR MOBILITY WING (AMC)
TRAVIS AIR FORCE BASE CA 94535-5000**



**STORM WATER
POLLUTION
PREVENTION PLAN**

Air Transportation SIC 4512-4581

June 2015

60th Civil Engineer Squadron, Installation Management Flight
(707) 424-3587

**NPDES NO. CAS000001
Effective Date July 1, 2015–June 30, 2020**

OPR: 60 CES INSTALLATION MANAGEMENT (60 CES/CEI)

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COMPLIANCE CERTIFICATION

60 AMW Storm Water Pollution Prevention Plan
WDID # 2-481000808

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 ensure that qualified personnel properly gathered and evaluated 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, the information submitted is, to the best of my knowledge and belief, 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.

6/19/2015

X *Brian L. Sassaman*

BRIAN L. SASSAMAN, GS-13, DAFC
Flight Chief, Installation Management
Signed by: SASSAMAN.BRIAN.L.1080522793

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Acronyms

AFB	Air Force Base
AF-EMIS	Air Force Environmental Management Information System
AMW	Air Mobility Wing
AMW/CC	Installation Wing Commander
ASBS	Areas of Special Biological Significance
AST	Aboveground Storage Tank
Base	Travis Air Force Base
BAT	Best Available Technology Economically Achievable
BCT	Best Conventional Pollutant Control Technology
BMP	Best Management Practice
BOD	Biochemical Oxygen Demand
BPJ	Best Professional Judgment
CBPELSG	California Department of Consumer Affairs, Board for Professional Engineers, Land Surveyors and Geologists
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CES/CEC	Civil Engineer Squadron Engineering Flight
CES/CEI	Civil Engineer Squadron, Installation Management Flight
CES/CEI/CEIE	Civil Engineer Squadron, Installation Management Flight, Civil Engineering Installation Management
CES/CEO	Civil Engineer Squadron Operations Flight
CES/CEOHH	Civil Engineer Squadron, Operations Flight, Horizontal Shop
CGP	Construction General Permit
COD	Chemical Oxygen Demand
CWA	Clean Water Act
DLA	Disposition Services
DRMO	Defense Reutilization and Marketing Office
DWQ	Division of Water Quality
ELGs	Effluent Limitations Guidelines and New Source Performance Standards
EPA	U.S. Environmental Protection Agency
ERA	Exceedance Response Action
ESOH	Environmental, Safety, and Occupation Health
FOUO	For Official Use Only
GPM	Gallons Per Minute
ICP	Integrated Contingency Plan
LRS/LGRF	Logistics Readiness Squadron, Liquid Fuels Flight
LRP	Legally Responsible Party
MS4	Municipal Separate Storm Sewer System
MSDS	Material Safety Data Sheet
MSGP	Multi Sector General Permit
NAL	Numeric Action Level
NEL	Numeric Effluent Limitation
NOI	Notice of Intent
NONA	Notice of Non Applicability
NOT	Notice of Termination

NPDES	National Pollutant Discharge Elimination System
NSPS	New Source Performance Standards
NSWD	Non-Storm Water Discharge
O&G	Oil and Grease
OWS	Oil/Water Separator
POL	Petroleum Oils and Lubricants
POTW	Publicly Owned Treatment Plant
POV	Privately Owned Vehicle
QA/QC	Quality Assurance/Quality Control
QISP	Qualified Industrial Storm Water Practitioner
QSE	Qualifying Storm Event
ROICC	Resident Officer In Charge of Construction
RWQCB	Regional Water Quality Control Board
SAP	Satellite Hazardous Waste Accumulation Point
SIC Code	Standard Industrial Classification Code
SOP	Standard Operating Procedure
SMARTS	Storm Water Multiple Application and Report Tracking System
SPCC	Spill Prevention, Control, and Countermeasure
SSMP	Storm Water Sampling and Monitoring Plan
SWPPP	Storm Water Pollution Prevention Plan
SWPPT	Storm Water Pollution Prevention Team
SWRCB	State Water Resources Control Board
TMDL	Total Maximum Daily Loads
TSS	Total Suspended Solids
UEC	Unit Environmental Coordinator
UST	Underground Storage Tank
U.S.	United States
U.S. EPA	United States Environmental Protection Agency
WDID	Waste Discharge Identification Number

1.0. Executive Summary

The purpose of the 60th Air Mobility Wing (AMW) Storm Water Pollution Prevention Plan (SWPPP) is to provide guidelines for compliance with Clean Water Act (CWA) requirements for Multi Sector General Permit (MSGP). The plan explains the legal and policy drivers that govern the storm water program, outlines activities to comply with SWPPP, and assigns responsibility for program implementation. This SWPPP focuses on industrial activities and procedures to minimize contaminant migration in storm water.

All organizations and personnel are required to implement the storm water pollution prevention program as outlined in this plan.

Industrial Activities

The CWA utilizes Standard Industrial Classification (SIC) Codes for different industrial activities. Typically, military facilities utilize SIC Code 9711 under National Security. California's storm water permitting regulations do not recognize SIC Code 9711 as an industrial storm water code. The most prominent industrial activity at Travis AFB relates to Air Transportation – under SIC Code 4581. Other minor industrial activities occur at the Base but do not qualify as requiring a separate SWPPP based on SIC Code. These industrial activities are considered in this SWPPP but are not called out under separate code or requirements. For simplicity, this plan has included these activities by addressing the sector-like activities by utilizing the associated sector Best Management Practices (BMPs) and good housekeeping practices. These ancillary industrial activities:

- The Recycling Facilities
- The Temporary Hazardous Waste Storage Facility
- Dust/Particulate Generating Activities
- Soil Erosion.

1.1. Regulatory Requirements

The CWA governs storm water discharges. Activities that discharge pollutants into United States (U.S.) waters must obtain permits and monitor the discharges. For Travis AFB, CWA requirements are administered by the State Water Resources Control Board (SWRCB), and enforced by Region 2 – the San Francisco Bay Regional Water Quality Control Board (RWQCB). Travis AFB is on record with a Notice of Intent (NOI) to comply with the requirements of the California General Industrial Activities Storm Water Permit (CAS000001).

Storm Water Pollution Prevention Plan Certification and Plan Implementation

Prior to certification, the 60 CES/CEI shall review this Storm Water Pollution Prevention Plan (SWPPP) to verify compliance with the MSGP. The SWPPP shall be reviewed annually

following the completion of the annual comprehensive site compliance evaluation. Recommendations for revision to the SWPPP or program shall be documented in the annual report. This SWPPP will be revised accordingly based on the completion of the evaluation. This SWPPP shall be effective immediately upon certification or by 1 July 2015, whichever occurs first.

Storm Water Sampling and Monitoring Plan

Based on permit requirements, storm water sampling shall be accomplished by following the SSMP located in Appendix A. Laboratory analyses shall be conducted by a certified lab with results provided to 60 CES/CEI for review, documentation and actions when needed.

Table 1-1 summarizes the SWPPP requirements from the SWRCB General Permit. The BMPs are routine measures or practices to eliminate or reduce pollutants entering surface water, air, land, and/or groundwater. The General Permit has identified minimum required BMPs and advance BMPs. A BMP is a process, activity, or physical structure. Structural BMPs include infiltration devices, low impact development practices, ponds, filters and constructed wetlands. Non-structural BMPs include and management measures such as maintenance practices, street sweeping, education and good housekeeping programs. The Base is required to implement these BMPs to the greatest extent possible.

Implementation Schedule

The Storm Water Pollution Prevention Program at Travis AFB began in 1997 with the initial SWPPP and filing of the NOI. The 1997 permit has been updated over the years when additional regulatory requirements have been implemented and/or when conditions/mission at Travis AFB have changed. These updates were implemented to continue to protect the water resources at Travis AFB. This SWPPP update is in response to the regulatory General Permit changes that go into effect 1 July 2015. An annual review of this SWPPP shall be completed and updated, as site conditions and/or regulatory requirements change. This SWPPP follows the requirements of the 2015 General Permit regulated by the SWRCB San Francisco Region 2.

Table 1-1. Highlights of the 2015 Industrial General Storm Water Permit

Required Action	Highlights/Requirements
Prepare and implement a SWPPP	<ul style="list-style-type: none"> Outline the potential sources of storm water pollutants and BMPs to minimize such pollution. Certify that all unauthorized non–storm water discharges be permitted, eliminated, or that elimination plans are being initiated. Retain the SWPPP on site and ensure that it is readily available for regulatory and/or public review. Identify a pollution prevention team to implement the requirements of the SWPPP. Update the SWPPP periodically to reflect the latest changes in facility operations and the pollution prevention program.
Prepare and implement a SSMP	<ul style="list-style-type: none"> Outline the monitoring activities necessary to verify the effectiveness of the BMPs. Detail the implementation of the monthly and annual inspections, sampling, and analytical methods. Retain the SWPPP on site and ensure that it is readily available for regulatory and/or public review. Explain the rationale for selecting the sampling locations (this information is included in the Draft Storm Water Sampling Equipment Alternatives Evaluation Technical Memorandum).
Conduct storm water sampling and analysis	<ul style="list-style-type: none"> Collect storm water samples during the first four hours of discharge from two qualifying storm events between 1 July 1 through 31 December and two qualifying storm events between 1 January through 30 June. Analyze samples for potential contaminants of concern as required by the General Permit.
Conduct non–storm water discharge visual inspections	<ul style="list-style-type: none"> Inspect storm water discharge points from industrial facilities, documenting any stains, sludge, odors, or other abnormal conditions that may indicate non-storm water discharge (NSWD). Conduct monthly inspections occurring during daylight hours on days when storm water discharge should not be occurring.
Conduct monthly storm water discharge visual inspections	<ul style="list-style-type: none"> Inspect storm water discharge points from the industrial facilities and document the presence of floating and suspended materials, oil and grease, discoloration, turbidity (e.g., eroded soil), odor, and other conditions that may indicate storm water contamination.
Conduct annual comprehensive site compliance evaluation	<ul style="list-style-type: none"> Review records and sampling results for completeness. Inspect and document the proper implementation of BMPs at each industrial facility. Determine the effectiveness of the BMPs and identify improvements or new BMPs, if necessary, to maintain compliance with the General Permit.
Submit annual report	<ul style="list-style-type: none"> Include the results of the inspections, sampling and analysis, and the annual comprehensive site compliance evaluation in the annual report. Submit the annual report to the RWQCB by 1 July of each calendar year. The required forms for the annual report are posted each year on the SWRCB website at http://www.swrcb.ca.gov/stormwtr/docs.

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2.0. Objectives of the Storm Water Pollution Prevention Plan

The purpose of the SWPPP is to provide a guideline for compliance with CWA requirements for storm water pollution prevention. The plan explains policies and the legal drivers that govern the storm water program, outlines activities to comply with SWPPP, and assigns responsibility for program implementation. The development of a SWPPP has three major objectives:

- a) To identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of storm water discharges and authorized NSWDs from the facility.
- b) To identify and implement site-specific BMPs to reduce or prevent pollutants associated with industrial activities in storm water discharges and authorized NSWDs.
- c) To document inspections, water quality results, and the operations and maintenance of BMPs and the facilities operational equipment.

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3.0. Planning and Organization

The Storm Water Pollution Prevention Team (SWPPT) is composed of members from the 60th Civil Engineer Squadron, Installation Management Flight (CES/CEIE), 60th Civil Engineer Squadron, Operations Flight, Horizontal Shop (60 CES/CEOHH), 60th Logistics Readiness Squadron, Liquid Fuels Flight (60 LRS/LGRF) and Unit Environmental Coordinators (UECs) (Table 3-1). These members meet annually to review and revise the SWPPP as applicable.

Table 3-1. Storm Water Pollution Prevention Team

Organization	Office Symbol/Name*	Responsibilities
60th Civil Engineer Squadron, Installation Management Flight	60 CES/CEI	<ul style="list-style-type: none"> Team chairperson
60th Civil Engineer Squadron, Water Program Manager	60 CES/CEIE	<ul style="list-style-type: none"> Team alternate Management and administration of storm water program Assure compliance by all Base personnel Complete and submit storm water report, update SWPPP, perform inspection of facility
60th Civil Engineer Squadron, Operations Flight, Horizontal Shop	60 CES/CEOHH	<ul style="list-style-type: none"> Supervision, storm water system maintenance Assure maintenance and repairs comply with requirements
60th Logistics Readiness Squadron, Liquid Fuels Flight	60 LRS/LGRF	<ul style="list-style-type: none"> Assure fueling facilities comply with SWPPP
UECs	Environmental Management System Program Managers. (Available on an as needed basis)	<ul style="list-style-type: none"> Group Environmental Coordinator, responsible for SWPPP compliance within Group Perform inspections as required, direct squadron-level environmental coordinators to achieve and maintain compliance

*Due to the fluid nature of military personnel, members are designated by office symbols only.

3.1. Travis AFB Roles and Responsibilities

3.1.1. Installation Wing Commander

The Installation Wing Commander (60 AMW/CC) has overall responsibility for the Base environmental program including the storm water management program. The 60 AMW/CC is the “Legally Responsible Party” for all Construction General Permits, the Industrial General Permit, and case specific National Pollutant Discharge Elimination System (NPDES) permits. Only the Wing Commander and the Vice Wing Commander have the authority to grant

exemption from this plan. The 60 AMW/CC has delegated the management responsibilities of the Legally Responsible Party (LRP) for all Construction General Permits and Industrial General Permit to the 60 CES/CEI.

3.1.2. Civil Engineer Squadron Installation Management Flight

The 60 CES/CEI has primary responsibility for ensuring environmental compliance and plays a leading role in the successful implementation of the SWPPP. The Water Program Manager (60 CES/CEIE), acts as the overall storm water program manager and serves as chairperson of the installation storm water pollution prevention team and conducts the following duties:

- Coordinates all storm water related activities
- Develops the SWPPP and functions as SWPPP manager and coordinator
- Leads the SWPPT in implementing the SWPPP
- Ensures storm water permit requirements are met
- Maintains records and completes required documentation
- Interfaces with regulators and other interested parties
- Ensures protection devices, such as spill equipment, oil/water separators, are maintained
- Conducts the annual comprehensive site compliance evaluation
- Requests required resources (sampling and supply funds) from AFCEC
- Provides annual training on managing storm water, spill response, good housekeeping, material handling procedures and actions necessary to implement BMPs listed in the SWPPP.

Training is provided by reviewing training slides annually. Slides may require updating as conditions change or as non-compliance issues or trends are observed.

3.1.3. Civil Engineer Squadron Engineering Flight

The 60 CES/CEC provides technical guidance on structural components of the storm water system and BMPs involving structural changes. The Engineering Flight is also responsible for updating any storm water system drawings.

3.1.4. Civil Engineer Squadron Operations Flight

The 60 CES/CEO is responsible for maintaining storm water systems and devices including inlets and catch basins.

3.1.5. Environmental, Safety and Occupation Health Council

The Environmental, Safety and Occupation Health (ESOH) Council is the principal environmental oversight and policy-making body.

3.1.6. Group and Squadron Commanders

Group and Squadron Commanders are responsible for compliance with the Base SWPPP and other environmental regulations within their units/organization and within their area of operations and control.

3.1.7. Unit Environmental Coordinators

The UECs are command-appointed individuals responsible for implementing SWPPP requirements within their organization. The UEC acts as the coordinator of SWPPP activities within his or her organization and ensures applicable BMPs are evaluated and used. The UEC ensures that inspections are performed and records are kept in accordance with the SWPPP. The UEC or other designee works closely with 60 CES/CEIE to assure compliance with this SWPPP.

3.1.8. Resident Officer In Charge of Construction Commander

The Resident Officer In Charge of Construction (ROICC) Commander is responsible for compliance with the Base SWPPP, site-specific Construction General Permits, NPDES permits, and other environmental regulations and Base plans within their units/organization, contractors working on land directly and/or indirectly within their area of operations and control.

3.1.9. SWPPP Manager

The SWPPP Manager shall have primary responsibility and authority over the contractor/base personnel for implementation, maintenance, and inspection of the approved Construction SWPPP and/or Base Industrial SWPPP. If a construction project is not assigned to the ROICC, then the SWPPP Manager shall be the 60 CEI/CEN assigned Project Manager.

3.1.10. Sublease Permits

Kinder Morgan subleases an area in Sub-Watershed 2. This area serves as a transfer station for fuel brought onto the Travis AFB. Kinder Morgan maintains a site-specific SWPPP for their industrial area and their above ground storage tanks. Copies of their annual SWPPP reviews and spill reports are made available to Travis AFB for incorporation into installation's annual report. Kinder Morgan's sampling plan follows Travis's sampling procedures found in Appendix A.

3.2. Existing Facility Plans that Support the Storm Water Program

As with any of the U.S. military forces, Travis AFB has implemented numerous programs with overlapping environmental awareness and the workforces engrained work habits, which has formed an interwoven environmental program across the facility. Due to the military structure of Travis AFB, national Standard Operating Procedures (SOPs) have been developed and implemented across the facility. In addition to these national SOPs, several site-specific procedures have also been implemented at Travis AFB. SOPs addressing deicing procedures and dewater of electrical vaults have been included in Appendix G to this SWPPP. In the event additional site specific SOPs relevant to storm water management are implemented, they shall be amended to this SWPPP's by appending to Appendix G in this SWPPP.

3.3. Integrated Contingency Plan

The 60 AMW Integrated Contingency Plan (ICP) is the principal document for spills and releases at Travis AFB. The ICP provides spill prevention and countermeasure requirements for operators and emergency response personnel. This plan provides the procedures for responding to all reported spills at Travis AFB. The ICP contains SOPs to address minor and major releases of fuels and other contaminants. The ICP contains procedures for containment, clean up, disposal of waste and cleaning materials, and reporting requirements. This program reports spills and leaks to the San Francisco Bay RWQCB and the California Office of Emergency Response. Contractors or regulators who need to access the document should contact CEIE.

3.4. Wastewater System

The sanitary sewer system collects industrial and sanitary wastewater, discharging it by permit to the local publicly owned treatment plant (POTW), Fairfield-Suisun Sewer District Wastewater Discharge Permit, and Ordinance #2008-003 as amended. Travis AFB has no wastewater, industrial, or sanitary facilities that discharge to the storm water system. In case of an overflow or sewer line break, the 60 AMW Sanitary Sewer Accidental Spill Prevention Plan shall be followed. Contractors or regulators who need to access the document should contact CEIE.

3.5. Construction General Permit

A Construction Storm Water Discharge Permit has been issued by SWRCB Water Quality Order No. 2009-0009-DWQ (Construction General Permit covering Land Disturbance Activities), NPDES permit, as amended. This permit addresses construction sites of one acre or more. A copy of the current permit is found at http://www.swrcb.ca.gov/water_issues/programs/stormwater/construction.shtml.

4.0. Site Description

Travis AFB is near the town of Fairfield, California, at the longitude and latitude of 38° 16' 06" North and 121° 56' 01" West (Figure 4-1). Travis AFB is home to the 60 AMW, the Air Force's largest air mobility organization with an all-jet fleet of C-5 Galaxy, C-17 Globemaster III cargo, and KC-10 Extender refueling aircraft.

The facilities scheduled operation hours are from 0700 to 1600 Monday through Friday. Due to the nature of an AFB, other activities may occur 24/7.

4.1. Structures and Improvements

Travis AFB consists of approximately 6,383 acres or 9.97 square miles, which have been altered with impervious structures and/or pavement in creating the facility. The Base has over 400 building structures, including industrial, commercial, aircraft operations, maintenance, medical, administration buildings, and over 1,000 family housing units covering over 200 acres. Paved areas associated with aircraft runways, taxiways, aprons, and shoulder areas are mostly on the southeast side of the base and cover over 600 acres. Vehicle parking lots, driveways and sidewalks cover over 700 acres and almost 500,000 linear feet of roadways. Figure 4-2 shows the Base layout.

4.2. Rainfall

The Central Valley of California has a Mediterranean climate with hot dry summers and cool wet winters. Nearly 88 percent of the rainfall in the area falls between October and March. Figure 4-3 shows the average annual rainfall distribution of the area. According to Weatherbase.com for Travis AFB with 24 years of record, the average annual precipitation is 17.2 inches per year. The 24-hour design storm frequencies for the 5-yr, 10-yr, 25-yr, and 100-yr storm events are 2.98 inches, 3.53 inches, 4.28 inches, and 5.44 inches respectfully.

4.3. Surface Water

Surface water flows from the north onto Travis AFB from Union Creek, which has been diverted into two channels approximately one mile north of Travis AFB and enters at points A1 and A2. These two channels receive storm water runoff from numerous locations before combining into one channel and discharging from the Base through Outfall I. The eastern branch of Union Creek enters at the northeast corner of the Base just west of the North Gate Road at Site A1 which flows through an artificial pond (Duck Pond), and enters the storm water collection system in Sub-Watershed 5. The western branch of Union Creek enters near Markeley Lane and DeRonder Drive at Site A2 along the northwest boundary of the housing area, adjacent to a small commercial area before it flows under Air Base Parkway near the main gate. The western branch of Union Creek is part of Sub-Watershed 2 and channelized as an open ditch for most of its route across the Base. Several other minor drainages flow onto and off the facility as sheet flow as an

ephemeral stream following during a storm event, or from irrigation return flow from adjacent agricultural lands. General discharge flow directions are depicted in Figure 4-4A. The two influent locations that flow onto the base have been included in the monitoring program to identify levels of specific pollutant that might flow onto Travis AFB from outside sources. Influent concentrations shall be compared to effluent concentrations to identify if additional contaminant loading occurs as storm water flows through the Base.

As depicted on the U.S. Environmental Protection Agency's (U.S. EPA's) "MyWATERS" Mapper, surface water from Travis AFB discharges to the south, flowing into several swamps, marshy areas, and troughs before discharging into Hill Slough and Loco Slough. The U. S. EPA has grouped these waterways into the Suisun Marsh Wetlands Impairment (Figure 4-5). The State of California has evaluated several of these waterways and found them impaired from mercury, nutrients, low dissolved oxygen and total dissolved solids/chlorides. Further studies may be conducted by the State to determine if total maximum daily loads (TMDL) will be implemented. Based on the 2010 303(d) listing, no TMDL are associated with the Base or these watersheds.

The Areas of Special Biological Significance (ASBS) as defined in the California Ocean Plan are not applicable to discharges to enclosed bays and estuaries or inland waters or the control of dredged material and therefore are not applicable to Travis AFB.

4.3.1. Storm Drainage System

The storm drainage system on Base consists of underground storm drains and open ditches that support several drainage areas. The storm drain system is designed to handle a 10-year, 24-hour storm. Figure 4-4A shows drainage basin areas and outfall locations. Figure 4-4B depicts the features of the storm drain utility system.

Travis AFB has defined Outfalls I through VI and B1 through B7. Four of these outfalls are associated with industrial discharge leaving the facility in quantities sufficient to form a measurable waterway during a storm event. These permitted outfalls have been defined as Outfalls I, VI, B2 and B3. Several secondary outfalls that are tributaries to one of these four regulated discharge points have also been defined as outfalls, which may be used to help locate NSWDS and/or illicit discharges up gradient of the permitted outfalls. Union Creek accepts the vast majority of the storm water, exposed to industrial activities. This discharge is monitored through Outfall I on the south side or down gradient of the flight line. Water discharged through Outfalls B2 and B3 also on the south side of the flight line captures a small percentage of storm water from the flight line area as an ephemeral streams which may flow into Luco and Nurse Slough, and then into Suisun Slough during a significant storm event. Outfall VI captures a small fraction of the industrial storm water discharging from the facility that flows into Union Creek down gradient of Outfall I. The remaining outfalls are unrelated to industrial activities, but have been identified as discharge locations at Travis AFB. Outfalls I through VI and B1 through B7 are discussed further in this section.

Travis AFB does not maintain any continuous discharge recorders to assess discharge coming onto or off the Base. An estimation of sub watershed area and percent impervious are presented in Table 4-1.

Table 4-1. Sub Watersheds and Percent Impervious Area at Travis AFB

Sub Watershed Name	Sub-Watershed Area (ac)	Percent Impervious (%)	Impervious Area (ac)	Percent Pervious (%)	Pervious Areas (ac)
1	618.4	11.7%	72.2	88.3%	546.2
2	1,538.3	39.0%	599.9	61.0%	938.3
3	280.5	69.6%	195.3	30.4%	85.2
4	1,223.7	31.6%	386.1	68.5%	837.6
5	78.2	40.6%	31.8	59.4%	46.4
6	282.8	26.0%	73.5	74.0%	209.3
7	607.4	4.4%	27.0	95.6%	580.4
8	528.3	21.6%	114.3	78.4%	414.0
Total	5157.7	29.1%	1500.1	70.9%	3657.6

In addition to the annual discharge from storm water and inflow from Union Creek, over 48 million gallons of groundwater is extracted from contaminated groundwater plumes under Travis AFB. This water is treated and discharged to Union Creek pursuant to two interim Groundwater Records of Decision with the U. S. EPA, the California Department of Toxic Substances Control, and the San Francisco Bay RWQCB. This treated groundwater supplements the flow of the eastern branch of Union Creek at a rate of 0.203 cubic feet per second or 147.3 acre-feet/year.

4.3.2. Industrial Outfalls

4.3.2.1. Outfall I

Outfall I is a permitted outfall that is the farthest downstream point on Union Creek, draining the largest portion of the industrial areas at Travis AFB. This outfall represents Sub-Watershed I, which also collects discharge from Sub-Watersheds 2, 3, 4, and 5. Water quality samples and visual observations are made at Outfall I as the largest down gradient outfall representing the industrial activities at Travis AFB as Union Creek leaves the facility.

4.3.2.2. Outfall II

Outfall II represents the surface water from West Union Creek and storm water collected from Sub-Watershed 2. Sub-Watershed 2 contains the industrial activities represented under Air Transportation or Sector S. Minor activities from hazardous material-like activities are associated with three Buildings. The activities associated with recycling-like activities are from one Building. The remaining industrial activities are represented by the Air Transportation Sector S, the fuel storage tank sites, aircraft parking areas, aircraft fueling areas, equipment storage areas, aircraft and vehicle maintenance facilities, aboveground and underground storage tanks and material handling facilities. Due to the heavy industrial activities in this sub-watershed, three supplemental sample locations have been identified to help isolate contamination if detected in Outfall I. These supplemental sample locations, II-A, II-B, and II-C are included in the visual inspection to allow Travis AFB to quickly focus on an area where a violation maybe originated from, in the event that water quality analysis from Outfall I indicates elevated levels of one or more target analyte. Outfall II is not sampled since the industrial activities for Sub-Watershed 2 are evaluated at Outfall I. Visual storm water inspections are conducted at this outfall.

4.3.2.3. Outfall III

Outfall III collects storm water from a large area of impervious surfaces within Sub-Watershed 3. This system includes equipment storage areas, aircraft and vehicle parking areas, and aircraft and vehicle fueling stations. Visual storm water inspections are conducted at this outfall before it discharges into Union Creek.

4.3.2.4. Outfall IV

Outfall IV collects storm water from Sub-Watershed 4 and surface water inflow from the East Fork of Union Creek as it enters the Base from the north. Sub-Watershed 4 includes almost one quarter of the facilities total acreage. This drainage system includes discharges from aircraft and fuel truck parking, aboveground storage tanks, aircraft fueling, and outside storage areas. Visual storm water inspections are conducted at this outfall.

4.3.2.5. Outfall V

Outfall V collects water from a short segment of the runway, taxiway, and the grassy area adjacent to them within Sub-Watershed 5. This outfall seldom discharges since a large percentage of this watershed is a permeable grassy area. Only visual observations are conducted at Outfall V since analytical samples are collected from Outfall I.

4.3.2.6. Outfall VI

Outfall VI collects storm water from within Sub-Watershed 6. The only industrial activity in this sub-watershed occurs from one building with storm water from the Hydraulic Multi-pallet Lift Sump discharging to the storm drain system. Visual inspections and analytical sampling are performed at the same time other outfalls are inspected and sampled.

4.3.2.7. Outfall B2 and B3

Outfalls B2 and B3 discharges storm water from within Sub-Watershed 8 and discharges south through small ephemeral drainage ways. Typically, only Outfall B2 has appreciable flow under heavy storm events. These outfalls collect storm water runoff from a small portion of Taxiway T where planes may be temporarily parked with limited industrial activities. Although storm water discharges from Outfall B2 and B3 seldom, both visual and analytical storm water samples are collected. Water discharging from Outfall B2 and B3 flows into tributaries of Luco and Nurse Slough, and into Suisun Slough.

4.3.3. Non Industrial Outfalls

Storm water from Sub Watershed 7 discharges to the west, south of the Aero Club (B5 and B6) and then into a housing subdivision where the flow is distributed among several drainage ditches. Storm water from this sub watershed only has minor amounts of impervious area and does not come in contact with industrial activities. Typical storm water is infiltrated into the fields to the west of the facility and on rare occasions, may discharge B5 discharge into the unnamed tributaries of Hill Slough and Suisun Slough. All the drainage from these surface water channels ultimately reaches Suisun Bay.

Recently, flows from outfalls on the southeast end of the air strip (Sub Watershed 8) have increased due to agricultural return flow from the up gradient landowner. Typically, only B4 and B7 have noticeable flow under heavy rain conditions. No routine industrial activities are conducted upstream of these intermittent waterways. These outfalls are on the upper reaches of Denverton Creek, which flows into Denverton Slough, Nurse Slough, and into Montezuma Slough. Visual storm water inspections are conducted when access is available.

4.4. Sources of Storm Water Pollution

Storm water pollution may occur when industrial activities, materials, spills or excess sediment from construction activities are exposed to rainwater. In these situations, pollutants may be subsequently extracted and transported into nearby waterways such as creeks, rivers, lakes, or oceans. Contamination from industrial activities and construction sites are the primary source areas that are regulated. These pollutants can cause detrimental effects in the receiving water body.

4.4.1. Industrial Activities

The CWA defines categories of industrial activities that require permitting to discharge storm water to waters of the U.S. Discharging storm water that has come in contact with industrial activities is permitted under the California General Industrial Activities Storm Water Permit (CAS000001) and listed in 40 Code of Federal Regulations Section 122.26(b)(14). This SWPPP identifies relevant regulatory requirements and describes mandatory measures to implement to ensure compliance with the General Permit.

The primary SIC Code for Travis AFB is 9711, National Security, defined as “Establishments of the armed forces, primarily engaged in national security, and related activities.” This code is not utilized by California’s storm water sectors codes. The next most appropriate SIC Sector Code for Travis AFB is SIC Code 4581, Sector Code S, for Air Transportations as defined by *“engaged in operating and maintaining airports and flying fields; in servicing, repairing (except on a factory basis), maintaining, and storing aircraft; and in furnishing coordinated handling services for airfreight or passengers at airports.”* This sector includes land transportation by encompass land based vehicle maintenance shops, and equipment cleaning operations.

Other minor industrial activities occur at the Base but do not qualify as requiring a separate SWPPP based on SIC Codes. These industrial activities are considered in this SWPPP but are not called out under separate code or requirements. For simplicity, this plan has included these activities by addressing the sector like activities by utilizing the associated sector BMPs and good housekeeping practices. These ancillary industrial activities:

- The Recycling Facilities
- The Temporary Hazardous Waste Storage Facility
- Dust/Particulate Generating Activities
- Soil Erosion.

Sector L is normally associated with discharge associated with landfills. Two landfills have been closed at Travis AFB under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) action. Monitoring of these sites is performed under the Installation Restoration Program. Water quality results are provided to the Storm Water Manager for reference in the event of storm water coming in contact with the landfill material or through landfill seepage or from the deterioration of the landfill caps. There are no active landfills at Travis AFB and, for this reason, Sector L procedures and analysis are not applicable in this SWPPP.

4.4.2. Wastewater System

The sanitary sewer system collects permitted industrial and sanitary wastewater, discharging it by permit to the Fairfield-Suisun Sewer District POTW. As such, the wastewater system is not addressed in this SWPPP.

4.4.3. Construction Activities

Construction activities that disturb one acre or more in one or multiple related projects (including equipment staging areas) require a separate discharge permit and are not included in this plan. For additional information concerning permitting requirements for construction activities of one acre or more, please contact the 60 CES/CEI.

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5.0. Industrial Activities and Associated BMPs

5.1. List of Significant Materials

Travis AFB tracks hazardous and nonhazardous industrial materials through purchase orders. A detailed list of materials brought onto Travis, consumed and waste disposed quantities are tracked through the Air Force Environmental Management Information System (AF-EMIS) database. Appendix C presents list of hazardous materials or pollutants typically used over the course of a year. This list remains relatively constant based on current needs and uses; however, the Air Force continually seeks out new products for cost savings, increased availability, or to reduce the overall toxicity.

Aboveground and underground storage tanks (ASTs and USTs) are covered under the Travis AFB ICP. The ICP is the primary guidance document for both spills and other forms of releases. As a reference, Appendix D and Appendix E have been included in this SWPPP to list the tank numbers, capacities, materials stored, and possible pollutant paths. A table of typical BMPs that are applicable for storage tanks is included as a reference in these appendices. Most of the spill responses follow the protocol in the ICP. As a permit requirement, all significant spills are tracked per the ICP. All of the significant releases exposed to storm water shall be tracked by the Storm Water Manager and included in the annual update of this SWPPP. Appendix F shall be maintained to list significant spills from the last 5 years. As part of the spill review, the storm Storm Water Manager shall evaluate the situation to determine if changes to the SWPPP are warranted, and what preventive measures need to be taken to ensure spills or leaks of the material do not reoccur and/or if additional training is justified. The Storm Water Manager or his/her appointee shall maintain a list of toxic chemicals identified in 40 Code of Federal Regulations Section 302 that has been discharged from the facility as reported on U.S. EPA Form R. This list shall also include oil and hazardous substances in excess of reportable quantities (40 C.F.R. §§ 110, 117, and 302) that have been discharged from the facility within the previous five-year period.

5.2. Potential Pollution Sources

This SWPPP provides an assessment of potential pollutants, their sources, and a series of BMPs addressing these pollutant sources with the responsible parties to maintain those BMPs. The standard protocol at Travis AFB is to conduct all industrial activities indoors, away from storm water exposure to the extent feasible including: manufacturing, cleaning, maintenance, recycling and disposal of materials. This protocol is not always 100 percent achievable pending situations where a vehicle breaks down on a runway and is unable to be moved indoors, or there is limited loading and unloading of vehicles and fueling operations.

All storage tanks (above- and belowground) are closely tracked and monitored within the ICP and through secondary containment. Minimum BMPs such as good housekeeping, preventive

maintenance, spill and leak prevention and response, material handling and waste management, erosion and sediment controls, employee training and quality assurance and record keeping shall be used throughout Travis AFB. Advance BMPs such as engineered minimum exposure controls, storm water containment and discharge reduction, and/or treatment control measures may be utilized if the minimum control BMPs are found to need additional treatment trains.

During the annual comprehensive site compliance evaluation, each of the industrial activities shall be inspected to ensure that the identified BMPs are properly implemented and working effectively. During these evaluations, if existing BMPs are found inadequate, new BMPs and/or the modification of existing BMPs may be required to protect the storm water system. In instances where BMPs are modified, and/or new BMPs are added, the SWPPP must be updated to reflect these changes within 14 days of the modifications.

5.3. Sector S – Air Transportation Facilities (SIC Code 4522)

The Industrial General Permit (IGP) defines Sector S as “Air Transportation Facilities that have vehicle maintenance shops, material handling facilities, equipment cleaning operations, and/or airport and aircraft deicing/anti-icing operations.”

Travis AFB maintains areas where potential pollution source activities are conducted and materials stored. As a general management practice, these activities are performed indoors when practicable in the effort to limit pollutant sources exposed to the storm water system. These sector-specific sites include:

- Fueling and Refueling Areas
- Aircraft Maintenance and Runways and Tarmacs Areas
- Aircraft, Vehicle, and Equipment Washing Areas, and
- Recycling, Hazardous Materials and Waste Storage Areas.

The following sections discuss these facilities, activities, primary contaminant sources, and actions that may cause the release of a contaminant into a waterway.

5.3.1. Fueling and Refueling Areas

Spills during the transfer of fuel to tanks, aircraft, vehicles, and equipment can cause significant pollution. Spilled fuel easily travels across impermeable surfaces, such as asphalt and concrete, and can quickly make its way to storm drains and/or to adjacent soils. Fuel spilled during rainy weather is especially difficult to contain since it is difficult to see on wet surfaces and it spreads further and faster than fuel spilled on dry surfaces. Once spilled fuel reaches a storm drain, it has an unobstructed route directly to surface water. Therefore, controlling the spill at the spill site is particularly important.

Aircraft are typically fueled through a hydrant fueling system. Table 5-1 describes this fueling system, identifying source areas, the type of facility, the activities and processes conducted, the

primary contaminants, and the potential pathways or causes of the release. It is important to confirm all fuel pumps are equipped with automatic shutoff devices and overfill protection is working properly, and that proper spill control and cleanup procedures are in place. Figure 4-4c, Potential Industrial Pollutant Source Area Location Map, shows the locations where fueling activities typically occur.

Table 5-1. Fueling and Refueling Areas

Facility Type	Activity/ Process	Materials Used	Potential Causes of a Release
Refueling Hydrant Fueling Systems	Aircraft, Vehicle and Equipment	JP-8	<ul style="list-style-type: none"> • Spills and leaks during delivery • Spills caused by topping off fuel tank • Hosing or washing down area • Leaking tanks
Pipeline	JP-8 Supply Pipeline	JP-8	<ul style="list-style-type: none"> • Accidental Discharge
Fuel/gasoline Filling Stations	Vehicle and Equipment Refueling	Gasoline/ Diesel	<ul style="list-style-type: none"> • Spills and leaks during delivery • Spills caused by topping off fuel tank • Leaking tanks

5.3.2. BMPs for Fueling Facilities

ASTs and USTs are covered under the Travis AFB ICP. The ICP is the primary guidance document for both AST and UST releases. As a reference, Appendix D and Appendix E have been included in this SWPPP to list the tank numbers, capacities, materials stored, and possible pollutant paths. Fuels carry contaminants that are not easily removed by storm water treatment devices. Consequently, controls at source areas are particularly important for fuel spills. Verify fuel pumps with automatic shutoff devices and overfill protection are working properly, and implement proper spill control and cleanup procedures. The BMPs described in Table 5-2 apply to fueling areas.

Table 5-2. BMPs for Fueling and Refueling Areas

Targeted Constituents: Fuel, Oil and Grease, Hydraulic Fluid, Metals, Organics, and Trash	
Responsible Party: 60th Logistics Readiness Squadron, Liquid Fuels Flight	
BMP	BMP Description
Minimum BMPs	
Good Housekeeping	<ul style="list-style-type: none"> • Minimize or prevent material tracking • Operation and Maintenance <ul style="list-style-type: none"> ○ Observe all outdoor areas associated with industrial activities ○ Cover all stored industrial materials that can be readily mobilized by contact with storm water ○ Prevent disposal of any rinse/wash waters or industrial materials into the storm water conveyance system ○ Keep aircraft, vehicle, and equipment maintenance, repair, and parking/storage areas neat and clean ○ Collect and dispose of loose garbage and waste material regularly ○ Provide adequate space for easy access and inspection ○ Minimize authorized NSWDs from non-industrial areas (e.g., potable water, fire hydrant testing, etc.) that contact industrial areas of the facility • Follow Material Inventory Procedures <ul style="list-style-type: none"> ○ Identify all hazardous material and material usage ○ Ensure Material Safety Data Sheets (MSDSs) are readily available ○ Label all containers to show the name and type of substance, stock number, expiration date, etc.
Preventive Maintenance	<ul style="list-style-type: none"> • Operate and maintain equipment as required for efficient operation <ul style="list-style-type: none"> ○ Identify all equipment and systems used outdoors that may spill or leak pollutants ○ Establish an appropriate schedule for maintenance of identified equipment and systems; and • Inspect aircraft, vehicles, and equipment for leaks and promptly respond to leaks or spills • Consider safer alternative products • Schedule for maintenance/repair or replacement of defective equipment • Document all inspections and corrective action
Spill Response (Call 911; Mobile Phone call 424-4911)	<ul style="list-style-type: none"> • Maintain the current ICP <ul style="list-style-type: none"> ○ Store spill response kits, including dry cleanup materials, in areas where spills might occur <ul style="list-style-type: none"> ✓ Absorbent pads ✓ Drain blockers

Table 5-2. BMPs for Fueling and Refueling Areas

Targeted Constituents: <i>Fuel, Oil and Grease, Hydraulic Fluid, Metals, Organics, and Trash</i>	
Responsible Party: <i>60th Logistics Readiness Squadron, Liquid Fuels Flight</i>	
BMP	BMP Description
Minimum BMPs	
Material Handling and Waste Management	<ul style="list-style-type: none"> • Contain all stored non-solid industrial materials or wastes (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed by the wind or contact with storm water • Cover industrial waste disposal containers and industrial material storage containers when not in use • Divert run-on and storm water generated from within the facility away from all stockpiled materials • Clean all spills of industrial materials or wastes that occur during handling in accordance with the spill response procedures • Observe and clean as appropriate, outdoor material, equipment or containers that can be contaminated by contact with industrial materials or wastes • Inspect equipment/vehicles prior to each anticipated rain event for leaking parts and take the necessary actions (move them to a protected location or contain the leaking material) • Perform maintenance indoors or in covered areas when appropriate <ul style="list-style-type: none"> ○ All parts washing should be performed in designated areas ○ Do not wash parts where wash waste cannot be captured ○ Use self-contained sinks/tanks when using solvents ○ Maintain waste fluid containers in leak-proof condition ○ Inspect equipment for damaged hoses and leaky gaskets • Repair or replace as necessary • Do not leave vehicles, aircraft, or equipment unattended during fueling • Use mobile fueling equipment only in designated areas • Store spill response kits, including dry cleanup materials, in areas where spills might occur • Use dry cleanup methods (e.g., kitty litter, absorbent fabrics) • Use drip pans or drop cloths under engines and crank cases during maintenance • If drip pans are exposed to rainwater, they must be a minimum of 6-inches deep and emptied every 24 hours into an oil/water separator (OWS)
Erosion and Sediment Controls	<ul style="list-style-type: none"> • Not applicable in this area

Table 5-2. BMPs for Fueling and Refueling Areas

Targeted Constituents: <i>Fuel, Oil and Grease, Hydraulic Fluid, Metals, Organics, and Trash</i>	
Responsible Party: <i>60th Logistics Readiness Squadron, Liquid Fuels Flight</i>	
BMP	BMP Description
Minimum BMPs	
Employee Training Program	<ul style="list-style-type: none"> • Train employees on the content and goals of the SWPPP • Train employees in the areas of spill prevention and responses, good housekeeping, material management practices, and preventive maintenance practices • Provide a training schedule • Maintain documentation of all completed training classes and the personnel that received training in the SWPPP • If a Discharger enters Level 1 status, appropriate team members shall be trained by a Qualified Industrial Storm Water Practitioner (QISP)
Quality Assurance and Record Keeping	<ul style="list-style-type: none"> • Develop and implement management procedures to ensure that appropriate staff implements all elements of the SWPPP, including the Monitoring Implementation Plan • Develop a method of tracking and recording the implementation of BMPs identified in the SWPPP • Maintain the BMP implementation records, training records, and records related to any spills and clean-up related response activities for a minimum of five years
Advance BMPs	
Storm Water Containment and Discharge Reduction BMPs	<ul style="list-style-type: none"> • Automatic shutoff valves • Utilize fueling area design guidelines • Install automatic shut-off fueling nozzles • Post signs to discourage “topping off” fuel tanks • Block storm drains with spill pads or absorbent mats when using mobile fueling equipment • Install perimeter drain or berm around fueling area to control contaminated runoff • Maintain pavement in good condition and promptly seal cracks

5.3.3. Aircraft Maintenance, Runways and Tarmacs Areas

Vehicles, aircraft, and equipment stored outdoors pose a potential source of storm water pollution. Fuel, oil, radiator fluid, and hydraulic fluid originating from leaking hoses, gaskets, tanks, reservoirs, cylinders, or zinc leached from aircraft tires can quickly make its way to storm drains or soil. Soil, asphalt, or concrete can absorb spilled oils or grease and the surface becomes a source of continuous sheen during subsequent rain events.

Activities that can contaminate storm water include engine repair and service, parts cleaning, replacement of fluids, sanding and painting, vehicle washing, and outdoor equipment storage and

parking. Fuel, oil, radiator fluids, and hydraulic fluids spilled during servicing or from leaking systems can quickly make its way to storm drains or soil. Rain events can wash residue from sanding and painting into the storm water system.

The activities and pollutants associated with aircraft, vehicle, and equipment maintenance are identified in Table 5-3. Figure 4-4c, Hazardous Materials Location Map shows the locations where these maintenance activities occur.

Travis AFB performs deicing operations during frost or freezing events. The application of deicing chemicals generates contaminated runoff that can enter the storm sewer system and impair surface water quality. Due to their organic nature, deicing compounds exert a high biological oxygen demand on receiving streams, which depletes oxygen levels necessary to sustain aquatic life. These deicing compounds are potentially toxic to aquatic organisms. Other environmental impacts include contaminated surface water and groundwater systems.

The aircrew, not the weather, dictates the use of deicing agents. The pilot may request deicing anytime s/he believes the safety of the aircraft crew will be in jeopardy. Base personnel must ensure that deicing operations are performed over an impervious surface where the storm drains can be blocked off during deicing operations. Once the deicing operation is complete, used deicing fluids must be removed from the site and properly disposed of or recycled.

Fuel spills and leaks may also occur on the runways and tarmac areas during fueling via portable fuel tanks and temporary parking of aircrafts and vehicles. These releases should follow the Spill Prevention, Control, and Countermeasure (SPCC) requirements in the ICP as soon as possible.

Table 5-3. Aircraft Maintenance, Runways and Tarmacs Areas

Facility Type	Activity/Process	Pollutant	Pollutant Source
Hangar	Fuel Cell Maintenance	Oils,	Improper disposal or handling
Maintenance Shop	Automotive Repair	Fuels,	
Paint Booth	Automotive Painting	Coolants,	
Maintenance Shop	Automotive Body Shop	Metals,	Hosing down or washing down area
Auto Hobby Shop	Auto maintenance and repair	Solvents,	
Maintenance Shop	Fuel Truck Maintenance	Dirt,	Leaking tanks
Manufacturing of Aircraft and Related Parts	Machining, Grinding, Testing, Treating, Paint Stripping, Degreasing, Parts Assembly, Floor Cleaning	Spent glass beads,	
		Ethyl-acetate,	
		Batteries,	
Hangar	Fuel Cell Maintenance	Alodine rinse water,	
Hangar	Aircraft Maintenance	Adhesives,	
Hangar	Aircraft Maintenance	Paint,	
Hangar	Aircraft Maintenance	Magnaflux penetrant,	
Hangar Washrack	Aircraft and Component Washing	Grease,	
Hangar	Aircraft Maintenance	Industrial Wastewater, Sludge,	

Table 5-3. Aircraft Maintenance, Runways and Tarmacs Areas

Facility Type	Activity/Process	Pollutant	Pollutant Source
Maintenance Shop	Forklift Maintenance	Grease, Zinc	
Maintenance Shop	Hydraulic Multi-pallet Lift Maintenance		

5.3.4. BMPs for Aircraft Maintenance, Runways and Tarmacs Areas

Vehicle, aircraft, equipment maintenance, and parking/storage are potentially significant sources of storm water pollution. Activities that can contaminate storm water include engine repair and service, parts cleaning, replacement of fluids, vehicle washing, and outdoor equipment storage and parking (dripping engines).

All installation and contractor personnel involved with the application of aircraft deicing/anti-icing agents must attend training on the efficient operation of deicing-related equipment. Personnel must annually train on good housekeeping/BMP measures related to the environmental impact from deicing. All spills and leaks should follow the BMPs and procedures outlined in the ICP. Table 5-4 describes the BMPs that apply to aircraft, vehicle, and equipment maintenance, runways, tarmacs areas and parking/storage areas.

Table 5-4. BMPs for Aircraft Maintenance, Runways and Tarmacs Areas

Targeted Constituents: <i>Fuel, Oil and Grease, Hydraulic Fluid, Metals, Organics, Sediment, and Trash</i>	
Responsible Party: <i>60th Civil Engineer Squadron, Operations Flight, Horizontal Shop, Unit Environmental Coordinators (UECs)</i>	
BMP	BMP Description
Minimum BMPs	
Good Housekeeping	<ul style="list-style-type: none"> • Minimize or prevent material tracking • Observe all outdoor areas associated with industrial activities • Cover all stored industrial materials that can be readily mobilized by contact with storm water • Prevent disposal of any rinse/wash waters or industrial materials into the storm water conveyance system; • Keep aircraft, vehicle, and equipment maintenance, repair, and parking/storage areas neat and clean • Collect and dispose of loose garbage and waste material regularly • Provide adequate space for easy access and inspection • Minimize authorized NSWDs from non-industrial areas (e.g., potable water, fire hydrant testing, etc.) that contact industrial areas of the facility • Follow Material Inventory Procedures • Identify all hazardous material and material usage • Ensure MSDSs are readily available • Label all containers to show the name and type of substance, stock number, expiration date, etc.

Table 5-4. BMPs for Aircraft Maintenance, Runways and Tarmacs Areas

Targeted Constituents: <i>Fuel, Oil and Grease, Hydraulic Fluid, Metals, Organics, Sediment, and Trash</i>	
Responsible Party: <i>60th Civil Engineer Squadron, Operations Flight, Horizontal Shop, Unit Environmental Coordinators (UECs)</i>	
BMP	BMP Description
Minimum BMPs	
Preventive Maintenance	<ul style="list-style-type: none"> • Operate and maintain equipment as required for efficient operation <ul style="list-style-type: none"> ○ Identify all equipment and systems used outdoors that may spill or leak pollutants ○ Establish an appropriate schedule for maintenance of identified equipment and systems; and • Inspect aircraft, vehicles, and equipment for leaks and promptly respond to leaks or spills • Schedule for maintenance/repair or replacement of defective equipment • Document all inspections and corrective action
Spill Response (Call 911; Mobile Phone call 424-4911)	<ul style="list-style-type: none"> • Maintain the current ICP • Store spill response kits, including dry cleanup materials, in areas where spills might occur <ul style="list-style-type: none"> ○ Absorbent pads ○ Drain blockers
Minimize Exposure of Equipment to Rainfall and Runoff	<ul style="list-style-type: none"> • Contain all stored non-solid industrial materials or wastes that can be transported or dispersed by the wind or contact with storm water • Cover industrial waste disposal containers and industrial material storage containers when not in use • Divert run-on and storm water generated from within the facility away from all stockpiled materials • Clean all spills of industrial materials or wastes that occur during handling in accordance with the spill response procedures • Observe and clean as appropriate, outdoor material, equipment or containers that can be contaminated by contact with industrial materials or wastes • Inspect equipment/vehicles prior to each anticipated rain event for leaking parts and take the necessary actions (move them to a protected location or contain the leaking material) • Perform maintenance indoors or in covered areas when appropriate <ul style="list-style-type: none"> ○ All parts washing should be performed in designated areas ○ Do not wash parts where wash waste cannot be captured ○ Use self-contained sinks/tanks when using solvents ○ Maintain waste fluid containers in leak-proof condition ○ Inspect equipment for damaged hoses and leaky gaskets • Repair or replace as necessary • Do not leave vehicles, aircraft, or equipment unattended during fueling • Use mobile fueling equipment only in designated areas • Store spill response kits, including dry cleanup materials, in areas where spills might occur • Use dry cleanup methods (e.g., kitty litter, absorbent fabrics)

Table 5-4. BMPs for Aircraft Maintenance, Runways and Tarmacs Areas

Targeted Constituents: <i>Fuel, Oil and Grease, Hydraulic Fluid, Metals, Organics, Sediment, and Trash</i>	
Responsible Party: <i>60th Civil Engineer Squadron, Operations Flight, Horizontal Shop, Unit Environmental Coordinators (UECs)</i>	
BMP	BMP Description
Minimum BMPs	
	<ul style="list-style-type: none"> • Avoid outdoor storage of leaking equipment, unless absolutely necessary (in which case, leaking material shall be contained) Use drip pans or drop cloths under engines and crank cases during maintenance • If drip pans are exposed to rainwater, they must be a minimum of 6-inches deep and emptied every 24 hours into an OWS • Follow Deicing Standard Operating Procedures (Appendix G) <ul style="list-style-type: none"> ○ Ensure no runoff of deicing materials ○ Use only enough deicing chemicals to ensure safe operation of aircraft; Excess chemicals add to storm water contamination from drip and shear of deicing chemicals ○ Avoid overspray of deicing chemicals ○ Dispose of collected deicing runoff
Erosion and Sediment Controls	<ul style="list-style-type: none"> • Not applicable in this area
Employee Training Program	<ul style="list-style-type: none"> • Train employees on the content and goals of the SWPPP • Train employees in the areas of spill prevention and responses, good housekeeping, material management practices, and preventive maintenance practices • Provide personnel training for deicing procedures • Provide a training schedule • Maintain documentation of all completed training classes and the personnel that received training in the SWPPP • If a Discharger enters Level 1 status, appropriate team members shall be trained by a QISP
Quality Assurance and Record Keeping	<ul style="list-style-type: none"> • Develop and implement management procedures to ensure that appropriate staff implements all elements of the SWPPP, including the Monitoring Implementation Plan • Develop a method of tracking and recording the implementation of BMPs identified in the SWPPP • Maintain the BMP implementation records, training records, and records related to any spills and clean-up related response activities for a minimum of five years
Advance BMPs	
Exposure Minimization	<ul style="list-style-type: none"> • Pave areas to contain fuels, solvents and oil spills • Maintain OWS
Storm Water Containment and Discharge Reduction BMPs	<ul style="list-style-type: none"> • Pave and maintain areas used for deicing operations to contain spills • Use mechanical vacuum systems or other devices to collect aircraft deicing runoff from the apron surface for proper disposal • Ensure that storm water inlets are blocked when deicing

5.3.5. Aircraft, Vehicle, and Equipment Washing Areas

Aircraft, vehicle, and equipment washing can introduce a host of pollutants into the environment if not properly contained and disposed. In addition to removing dirt, washing can remove harmful surface contaminants such as fuel, oil, heavy metals, and hydraulic fluid. OWSs are the primary structural BMP in place at these facilities to control pollutants from washing activities. These activities shall only be performed within the designated areas draining to an OWS.

Care must be taken after an OWS has been serviced to refill the OWS with potable water to a level where the oils and grease are trapped in the upstream site of the tank. Only one OWS from 960, Hydraulic Multi-pallet Lift Sump, discharges storm water from the sump to the storm drain system. All other OWS discharge to the sanitary sewer system for treatment at an off-site facility.

Table 5-5 identifies wash racks and cleaning areas for industrial activities. Travis AFB OWS locations are shown in Figure 4-4C.

Table 5-5. Aircraft, Vehicle, and Equipment Washing Areas

Area	OWS Number	Volume [gallons]	Pollutant Source	Pollutant
Jet Engine Washrack	OWS 18	500	Hosing down or washing down area Wash water Leaking tanks Rainfall runoff/run-on	Oils, Fuels, Engine fluids, Metals, Solvents, Dirt, Grease, Industrial Wastewater, Sludge
Steam Cleaning/Wash Rack	OWS 139E	350		
Vehicle Washrack		recirculate		
Engine & Parts Steam Cleaning Area	OWS 226	690		
Flight Line Fire Station Washrack	OWS 560	690		
Privately Owned Vehicle (POV) Carwash	OWS 603	2,000		
Aircraft Washrack	OWS 811	1,000		
Equipment Washrack	OWS 872	690		
Hydraulic Multi-pallet Lift Sump Drain	OWS 960			
Vehicle Washrack	OWS 981	690		
Vehicle/ Equipment Washrack	OWS 1177	690		
CEMIRT Washrack	OWS 1205	690		
Dorm Area Washrack	OWS 1359	350		
Dorm Area Washrack	OWS 1361	350		
Fuel Vehicle Washrack	OWS 1833	1000		
Equipment Washrack	OWS 1904	690		
Building parking lot, designated car wash fund-raising location	NA	NA	Road pollutants, Leaking Oil, Fuel	Dirt, Oil, Grease, Fuel

Note: OWS in ***bold italics*** discharge to the storm water system. All others discharge to the sanitary system.

5.3.6. BMPS for Aircraft, Vehicle, and Equipment Washing Areas

Vehicle, aircraft, and equipment washing areas should be considered minor sources of storm water pollution. Activities involved in and around washracks are contained within micro watersheds that divert run-on away from the facility and wash water towards the OWS preventing them from intermingling. The BMPs for Aircraft, Vehicle, and Equipment Washing Areas are described in Table 5-6.

Table 5-6. BMPs for Aircraft, Vehicle, and Equipment Washing Areas

Targeted Constituents: <i>Industrial Waste Water, Sludge, Oil and Grease, Sediment, Metals, and Organics</i>	
Responsible Party: <i>60th Civil Engineer Squadron, Operations Flight, Horizontal Shop, Unit Environmental Coordinators (UECs)</i>	
BMP	BMP Description
Minimum BMPs	
Good Housekeeping	<ul style="list-style-type: none"> • Minimize or prevent material tracking • Operation and Maintenance <ul style="list-style-type: none"> ○ Observe all outdoor areas associated with industrial activities ○ Cover all stored industrial materials that can be readily mobilized by contact with storm water ○ Prevent disposal of any rinse/wash waters or industrial materials into the storm water conveyance system ○ Collect and dispose of loose garbage and waste material regularly ○ Provide adequate space for easy access and inspection • Follow Material Inventory Procedures <ul style="list-style-type: none"> ○ Identify all hazardous material and material usage ○ Ensure MSDSs are readily available • Label all containers to show the name and type of substance, stock number, expiration date, etc. • Fund-raising POV car washes only in designated area which drains to grassy, permeable area for infiltration
Preventive Maintenance	<ul style="list-style-type: none"> • Operate and maintain equipment as required for efficient operation <ul style="list-style-type: none"> ○ Identify all equipment and systems used outdoors that may spill or leak pollutants ○ Establish an appropriate schedule for maintenance of identified equipment and systems • Inspect aircraft, vehicles, and equipment for leaks prior to washing and promptly correct leaks or spills • Schedule for maintenance/repair or replacement of defective equipment • Document all inspections and corrective action • Operate and maintain OWS as required for efficient operation • Maintain schedule for maintenance in removing accumulated oil and sludge

Table 5-6. BMPs for Aircraft, Vehicle, and Equipment Washing Areas

Targeted Constituents: <i>Industrial Waste Water, Sludge, Oil and Grease, Sediment, Metals, and Organics</i>	
Responsible Party: <i>60th Civil Engineer Squadron, Operations Flight, Horizontal Shop, Unit Environmental Coordinators (UECs)</i>	
BMP	BMP Description
Minimum BMPs	
Spill Response (Call 911; Mobile Phone call 424-4911)	<ul style="list-style-type: none"> • Maintain the current ICP • Store spill response kits, including dry cleanup materials, in areas where spills might occur <ul style="list-style-type: none"> ○ Absorbent pads ○ Drain blockers
Material Handling and Waste Management	<ul style="list-style-type: none"> • Contain all stored non-solid industrial materials or that can be transported or dispersed by the wind or contact with storm water • Cover industrial waste disposal containers and industrial material storage containers when not in use • Clean all spills of industrial materials or wastes that occur during handling in accordance with the spill response procedures • Observe and clean as appropriate, outdoor material, equipment or containers that can be contaminated by contact with industrial materials or wastes <ul style="list-style-type: none"> ○ Repair or replace as necessary • Store spill response kits, including dry cleanup materials, in areas where spills might occur • Use dry cleanup methods (e.g., kitty litter, absorbent fabrics) • Use drip pans or drop cloths under engines and crank cases if maintenance is required • Restrict vehicle and equipment washing to designated areas • Protect storm drains during washing operations • Minimize exposure to storm water during maintenance (cleaning OWS) • Do not wash under hoods, undercarriages, or oily POVs during fund-raising carwashes • Postpone fund-raising carwash if it is forecasted to rain within 24 hours of event
Erosion and Sediment Controls	<ul style="list-style-type: none"> • Not applicable in this area
Employee Training Program	<ul style="list-style-type: none"> • Train employees on the content and goals of the SWPPP • Train employees in the areas of spill prevention and responses, good housekeeping, material management practices, and preventive maintenance practices • Provide a training schedule • Maintain documentation of all completed training classes and the personnel that received training in the SWPPP • If a Discharger enters Level 1 status, appropriate team members shall be trained by a QISP

Table 5-6. BMPs for Aircraft, Vehicle, and Equipment Washing Areas

Targeted Constituents: <i>Industrial Waste Water, Sludge, Oil and Grease, Sediment, Metals, and Organics</i>	
Responsible Party: <i>60th Civil Engineer Squadron, Operations Flight, Horizontal Shop, Unit Environmental Coordinators (UECs)</i>	
BMP	BMP Description
Minimum BMPs	
Quality Assurance and Record Keeping	<ul style="list-style-type: none"> • Develop and implement management procedures to ensure that appropriate staff implements all elements of the SWPPP, including the Monitoring Implementation Plan • Develop a method of tracking and recording the implementation of BMPs identified in the SWPPP • Maintain the BMP implementation records, training records, and records related to any spills and clean-up related response activities for at least five years
Advance BMPs	
N/A	

5.4. Temporary Storage of Recycling and Hazardous Materials

Travis AFB maintains areas where potential pollution sources are stored and/or activities conducted. As a general management practice, these activities take place indoors when possible in an effort to limit contaminants exposure to storm water. These sites include:

- Recycling, Hazardous Waste and Hazardous Material Storage Areas
- Fertilizer, Pesticide and Herbicide Storage Areas.

The following sections discuss these facilities, the activities conducted, primary contaminant sources, and activities that may cause the release of a contaminant into a waterway. A general list of hazardous materials and wastes have been identified and presented in Appendix C. For a detailed list, including locations and annual quantities generated, refer to the latest 60 AMW Hazardous Waste Management Plan. For a detailed list, including locations, of hazardous materials and storage locations, refer to the current Air Force Environmental Management Information System (AF-EMIS) database. Supplemental sources of storage information are also available including the MedLog system, which tracks medical use supply purchases. Locations of hazardous material and waste storage in ASTs and USTs are identified in Appendixes D or E. Figure 4-4C depicts these locations at the Travis AFB.

5.4.1. Recycling, Hazardous Waste and Hazardous Material Storage Areas

The major recycling location is the Defense Reutilization and Marketing Office (DRMO) yard. It is in Building 724. The DRMO accepts scrap metal, pipes, heating- ventilation-air conditioning equipment, refrigerators, vehicles and electronics. These items are recycled off-site by a third-party vendor. Potential pollutant sources for sites storing hazardous waste and hazardous material come from the One-Year Hazardous Waste Storage Facility and the Satellite Hazardous Waste Accumulation Points (SAPs), which are located indoors in buildings across the facility. These activities are not exposed to storm water except when transferring materials from SAPs to the One Year Hazardous Waste Storage Facility. Potential pollutant sources are listed in Table 5-7.

Table 5-7. Recycling, Hazardous Waste and Hazardous Material Storage Areas

Area	Activity/Process	Pollutant Source	Potential Cause of Release
Recycling Facility, Disposition Services (DLA), Bldg. 724	Equipment and Material Recycling	Hydraulic fluid, oil, grease, other stored materials, sediment, metals, organics, fuel	Improper disposal or handling, leaking storage containers
Hazardous Material Storage <ul style="list-style-type: none"> Storage Areas One-year Hazardous Waste Storage Facility 	Storage Pending Off-Site Disposal	Refer to 60 AMW Hazardous Waste Management Plan, AF-EMIS	Improper storage, disposal or handling, leaking storage containers

5.4.2. BMPs for Recycling, Hazardous Waste and Hazardous Material Storage Areas

Scrap metal, pipes, heating-ventilation-air conditioning equipment, refrigerators, vehicles, and electronics are received and stored at the DRMO yard for recycling off-Base. These items may have dirt, oil, and other pollutants that can potentially wash off during a storm event, or the items may contain fluids not properly drained, that can leak or spill during handling. Electronic waste may have tubes and coatings containing chemicals possibly released to the environment if broken. Scrap metal may have flaking paint or rust that can weather and wash off.

SAPs must have materials transferred to the One-year Hazardous Waste Storage Facility to be transported off-site for recycling or disposal at a certified third party facility. The transfer of materials from either accumulation points or ultimately off-site typically occurs in two ways: (1) via enclosed containers or (2) by bulk liquid transfer (fuels, oils, etc.). Materials spilled, leaked, or lost during loading and/or unloading may collect in the soil or on other surfaces and be transported by storm water runoff. The BMPs for these storage areas are described in Table 5-8.

Table 5-8. BMPs for Recycling, Hazardous Waste and Hazardous Material Storage Areas

Targeted Constituents: <i>Pollutants/Chemicals Stored, Oil and Grease from Equipment, Sediment and Organics</i>	
Responsible Party: <i>Unit Environmental Coordinators (UECs)</i>	
BMP	BMP Description
Minimum BMPs	
Good Housekeeping	<ul style="list-style-type: none"> • Minimize or prevent material tracking <ul style="list-style-type: none"> ○ Operation and Maintenance ○ Observe all outdoor areas associated with industrial activities ○ Cover all stored industrial materials that can be readily mobilized by contact with storm water ○ Conduct loading and unloading in dry weather, if possible, or under covered areas not exposed to storm water ○ Prevent disposal of any rinse/wash waters or industrial materials into the storm water conveyance system ○ Store containers, drums, and bags away from direct traffic routes to prevent accidental spills ○ Stack containers according to manufacturer's instruction on pallets and above ground level to avoid corrosion due to moisture buildup ○ Store materials and waste indoors or in covered areas when possible ○ Ensure appropriate security measures are in place ○ Collect and dispose of loose garbage and waste material regularly ○ Fragile material, such as electronic waste, shall be stored indoors ○ Cover or enclose parts that contained liquid (such as hydraulic fluid, fuel oil, flaking paint or rust etc.) ○ Secure covers with rope or weight edges to keep in place ○ Inspect material and vehicles prior to anticipated rain events for leaking parts and take the necessary actions (by removing from outside or containing the leaking material) ○ Minimize the length of time material and vehicles are stored ○ Provide adequate space for easy access and inspection ○ Minimize authorized NSWDS from non-industrial areas (e.g., potable water, fire hydrant testing, etc.) that contact industrial areas of the facility • Follow Material Inventory Procedures <ul style="list-style-type: none"> ○ Ensure MSDSs are readily available ○ Label all containers to show the name and type of substance, stock number, expiration date, etc. Minimize or prevent material tracking
Preventive Maintenance	<ul style="list-style-type: none"> • Operate and maintain equipment as required for efficient operation <ul style="list-style-type: none"> ○ Identify all equipment and systems used outdoors that may spill or leak pollutants ○ Establish an appropriate schedule for maintenance of identified equipment and systems; and • Consider safer alternative products • Schedule for maintenance/repair or replacement of defective equipment

Table 5-8. BMPs for Recycling, Hazardous Waste and Hazardous Material Storage Areas

Targeted Constituents: <i>Pollutants/Chemicals Stored, Oil and Grease from Equipment, Sediment and Organics</i>	
Responsible Party: <i>Unit Environmental Coordinators (UECs)</i>	
BMP	BMP Description
Minimum BMPs	
Spill Response (Call 911; Mobile Phone call 424-4911)	<ul style="list-style-type: none"> • Maintain the current ICP • Store spill response kits, including dry cleanup materials, in areas where spills might occur <ul style="list-style-type: none"> ○ Absorbent pads ○ Drain blockers
Material Handling and Waste Management	<ul style="list-style-type: none"> • Contain all stored non-solid industrial materials or wastes (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed by the wind or contact with storm water • Cover industrial waste disposal containers and industrial material storage containers when not in use • Divert run-on and storm water generated from within the facility away from all stockpiled materials • Clean all spills of industrial materials or wastes that occur during handling in accordance with the spill response procedures • Observe and clean as appropriate, outdoor material, equipment or containers that can be contaminated by contact with industrial materials or wastes • Inspect equipment/vehicles prior to each anticipated rain event for leaking parts and take the necessary actions (move them to a protected location or contain the leaking material) • Do not wash parts where wash waste cannot be captured • Store spill response kits, including dry cleanup materials, in areas where spills might occur • Use dry cleanup methods (e.g., kitty litter, absorbent fabrics) • Provide containment dikes/curbing to prevent discharge to the storm drainage system • Utilize roof or awning areas over truck loading areas where permissible
Erosion and Sediment Controls	<ul style="list-style-type: none"> • Not applicable in this area
Employee Training Program	<ul style="list-style-type: none"> • Train employees on the content and goals of the SWPPP • Train employees in the areas of spill prevention and responses, good housekeeping, material management practices, and preventive maintenance practices • Provide a training schedule • Maintain documentation of all completed training classes and the personnel that received training in the SWPPP • If a Discharger enters Level 1 status, appropriate team members shall be trained by a QISP

Table 5-8. BMPs for Recycling, Hazardous Waste and Hazardous Material Storage Areas

Targeted Constituents: <i>Pollutants/Chemicals Stored, Oil and Grease from Equipment, Sediment and Organics</i>	
Responsible Party: <i>Unit Environmental Coordinators (UECs)</i>	
BMP	BMP Description
Minimum BMPs	
Quality Assurance and Record Keeping	<ul style="list-style-type: none"> Develop and implement management procedures to ensure that appropriate staff implements all elements of the SWPPP, including the Monitoring Implementation Plan Develop a method of tracking and recording the implementation of BMPs identified in the SWPPP Maintain the BMP implementation records, training records, and records related to any spills and clean up related response activities for a minimum of five years
Advance BMPs	
Exposure Minimization	<ul style="list-style-type: none"> Containment facilities shall provide for a spill containment volume equal to 110% of the largest container in the facility Containment facilities shall be impervious to the materials stored there Install valve-controlled sump in storm drain in loading dock areas Pave areas where liquid transfers take place and maintain pavement

5.4.3. Fertilizer, Pesticide and Herbicide Storage Areas

Fertilizers, pesticides, and herbicides are stored in four buildings. Only the product stored in one building is available to the public for use at domestic locations. The remaining buildings are industrial locations for agricultural materials used by trained personnel for grounds maintenance at Travis AFB. Potential pollutant sources are listed in Table 5-9.

Table 5-9. Fertilizer, Pesticide, and Herbicide Storage Areas

Activity/ Process	Pollutant Source	Potential Cause of Release
Resale Storage	Fertilizers Pesticides Herbicide	Improper storage, including torn, broken or deteriorated bags or containers
Storage Industrial and golf course applications	Fertilizers Pesticides Herbicide	Improper handling Improper storage of torn, broken, deteriorated containers Improper application Improper equipment filling Equipment cleaning

5.4.4. BMPs for Fertilizer, Pesticide and Herbicide Storage Areas

Fertilizers, pesticides, and herbicides can enter the waterways from spills, leaks, or over application to soil and/or vegetation. Grounds keeping personnel, retail employees and private consumers must be careful to handle, store and apply these chemicals according to manufacturer's instructions. BMPs for fertilizer, pesticide, and herbicide storage and use are contained in Table 5-10.

Table 5-10. BMPs for Fertilizer, Pesticide, and Herbicide Storage Areas

Targeted Constituents: <i>Nutrients, Pesticides, Fertilizers, Herbicides</i>	
Responsible Party: <i>60th Civil Engineer Squadron, Operations Flight, Horizontal Shop</i>	
BMP	BMP Description
Minimum BMPs	
Good Housekeeping	<ul style="list-style-type: none"> • Minimize or prevent material tracking <ul style="list-style-type: none"> ○ Operation and Maintenance ○ Observe all outdoor areas associated with industrial activities ○ Cover all stored industrial materials that can be readily mobilized by contact with storm water ○ Prevent disposal of any rinse/wash waters or industrial materials into the storm water conveyance system ○ Keep vehicle, and equipment maintenance, repair, and parking/storage areas neat and clean ○ Collect and dispose of loose garbage and waste material regularly ○ Provide adequate space for handling, storage, inspection and consumer pickup ○ Store containers and particularly bags according to manufacture's recommendations ○ Do not store in a manner causing bags or containers to tear or split ○ Utilize storage rack systems to minimize need to over stack bags and containers on top of one another ○ Keep bags or containers on pallets and off ground to minimize deterioration and contact with sheet flow ○ Minimize authorized NSWDS from non-industrial areas (e.g., potable water, fire hydrant testing, etc.) that contact industrial areas of the facility. • Follow Material Inventory Procedures <ul style="list-style-type: none"> ○ Identify all hazardous material and material usage ○ Ensure MSDSs are readily available ○ Label all containers to show the name and type of substance, stock number, expiration date, etc. ○ Do not store material in excessive quantities that result in long storage times and increased likelihood of deteriorated bags or containers ○ Designate areas for material storage so it may be readily located for 100% inspection ○ Inspect bags and containers weekly for damage or leaking material ○ Do not uncover more material than is needed in a reasonable period of time

Table 5-10. BMPs for Fertilizer, Pesticide, and Herbicide Storage Areas

Targeted Constituents: <i>Nutrients, Pesticides, Fertilizers, Herbicides</i>	
Responsible Party: <i>60th Civil Engineer Squadron, Operations Flight, Horizontal Shop</i>	
BMP	BMP Description
Minimum BMPs	
Preventive Maintenance	<ul style="list-style-type: none"> • Operate and maintain equipment as required for efficient operation <ul style="list-style-type: none"> ○ Identify all equipment and systems used outdoors that may spill or leak pollutants ○ Establish an appropriate schedule for maintenance of identified equipment and systems • Consider safer alternative products • Schedule for maintenance/repair or replacement of defective equipment • Document all inspections and corrective action
Spill Response (Call 911; Mobile Phone call 424-4911)	<ul style="list-style-type: none"> • Maintain the current ICP • Store spill response kits, including dry cleanup materials, in areas where spills might occur <ul style="list-style-type: none"> ○ Absorbent pads ○ Drain blockers
Material Handling and Waste Management	<ul style="list-style-type: none"> • Apply herbicides in compliance with federal, state, and local pesticide use regulations • Apply herbicides only as specified on the Pesticide Use Recommendation and the label • Minimize the use of herbicides in or near storm water drainage systems or watercourses • Calibrate the spray rig to ensure accurate application of herbicides • Avoid using overhead irrigation for as long as the chemical manufacturer recommends after applying herbicides • Do not spray chemicals when rainfall is likely to cause runoff and rainfall is forecasted within 12 hours • Store materials indoors when possible • Keep spill control kit near storage location • Cover bags and containers with heavy duty tarps, particularly excess inventory, and secure with twine or heavy duty tape such as duct tape • If bags or containers must be stored on ground, use portable berms to divert runoff and run-on • Perform yearly maintenance on application equipment • Inventory that is not expected to be used or sold that week shall be stored indoors, or stored under a roof, or covered with plastic tarps to protect from rain and sun • Clean up spilled material immediately and dispose of properly • Immediately re-package or repair torn, deteriorated, or broken bags • Properly maintain and operate applicator equipment, apply according to manufacturer's instruction • Contain all stored non-solid industrial materials or wastes that can be

Table 5-10. BMPs for Fertilizer, Pesticide, and Herbicide Storage Areas

Targeted Constituents: <i>Nutrients, Pesticides, Fertilizers, Herbicides</i>	
Responsible Party: <i>60th Civil Engineer Squadron, Operations Flight, Horizontal Shop</i>	
BMP	BMP Description
Minimum BMPs	
	<p>transported or dispersed by the wind or by contact with storm water</p> <ul style="list-style-type: none"> • Cover industrial waste disposal containers and industrial material storage containers when not in use • Divert run-on and storm water generated from within the facility away from all stockpiled materials • Clean all spills of industrial materials or wastes that occur during handling in accordance with the spill response procedures • Observe and clean as appropriate, outdoor material, equipment or containers that can be contaminated by contact with industrial materials or wastes • Inspect equipment/vehicles prior to each anticipated rain event for leaking parts and take the necessary actions (move them to a protected location or contain the leaking material) • Perform maintenance indoors or in covered areas when appropriate • All parts washing should be performed in designated areas • Do not wash parts where wash waste cannot be captured • Use self-contained sinks/tanks when using solvents • Maintain waste fluid containers in leak-proof condition • Inspect equipment for damaged hoses and leaky gaskets and repair or replace as necessary • Do not leave vehicles or equipment unattended during fueling • Store spill response kits, including dry cleanup materials, in areas where spills might occur • Use dry cleanup methods (e.g., kitty litter, absorbent fabrics, sweeping) • If drip pans are exposed to rainwater, they must be a minimum of 6-inches deep and emptied every 24 hours into an OWS
Erosion and Sediment Controls	<ul style="list-style-type: none"> • Not applicable in this area
Employee Training Program	<ul style="list-style-type: none"> • Train employees on the content and goals of the SWPPP • Train employees to properly store and protect material • Train employees in the areas of spill prevention and clean up, good housekeeping, material management practices, and preventive maintenance practices • Train employees on the proper mixing and application techniques and rates • Provide a training schedule • Maintain documentation of all completed training classes and the personnel that received training in the SWPPP <p>• If a Discharger enters Level 1 status, appropriate team members shall be</p>

Table 5-10. BMPs for Fertilizer, Pesticide, and Herbicide Storage Areas

Targeted Constituents: <i>Nutrients, Pesticides, Fertilizers, Herbicides</i>	
Responsible Party: <i>60th Civil Engineer Squadron, Operations Flight, Horizontal Shop</i>	
BMP	BMP Description
Minimum BMPs	
	trained by a QISP
Quality Assurance and Record Keeping	<ul style="list-style-type: none"> Develop and implement management procedures to ensure that appropriate staff implements all elements of the SWPPP, including the Monitoring Implementation Plan Develop a method of tracking and recording the implementation of BMPs identified in the SWPPP Maintain the BMP implementation records, training records, and records related to any spills and clean-up related response activities for a minimum of five (5) years
Advance BMPs	
Exposure Minimization	<ul style="list-style-type: none"> Install permanent roofing or temporary covers over agricultural material storage areas

5.5. Other Non-Specific Sources

This section addresses areas on the Base that are not under a specific industrial activity. These activities include:

- Dust/Particulate Generating Activities
- Soil Erosion from Land Disturbance.

5.5.1. Dust/Particulate, and Land Disturbances Activities

At Travis AFB, the dry season is typically associated with high winds. These winds can carry unstable soil particles into water bodies, storm drains, and/or sensitive habitat areas. During the wet season, unprotected soil and stockpiles may erode from rainfall and/or poorly stabilized waterways. The Bay Area Air Quality Management District regulates industrial dust and particulate generating activities. Operations such as fiberglass and abrasives blasting occur indoors or in protective booths or glove boxes connected to settling chambers or bag houses.

Soil erosion can naturally occur from wind and rain and may be amplified from man’s land disturbances. Land disturbance sites of one acre or more require a site-specific construction permit regulated by the SWRCB and shall contain site-specific BMPs. These sites will not be addressed in this SWPPP but under their own construction SWPPP. Sites smaller than one acre, storage piles, and/or areas of un-stabilized exposed soils and materials are addressed in this SWPPP. Other potential pollutant sources are described in Table 5-11.

Table 5-11. Dust/Particulate and Land Disturbances Activities

Areas	Activity	Pollutant Source	Potential Cause of Release
Base Wide	Construction Demolition Industrial Operations Road Grading Natural Events	Dirt/Dust Insulation Paint Chips Cement Wallboard	Building Demolition, Excavating Grading, Improper Storage and handling, Un-stabilized Soil, Fire, Flooding, Loss of Vegetation
Building 1365	Material Stockpiles	Soil/Dust, crushed concrete and asphalt recycling	Exposure to wind and rain

5.5.2. BMPs for Dust/Particulate Activities and Soil Erosion

BMPs for dust and particulate control apply mostly to building demolition and grading. Because it is generally windy, BMPs for dust and particulate control are important to implement to minimize these materials from leaving the site. Material can be blown off-site and washed away by storm water into nearby waterways or sensitive habitat areas.

Care must be exercised to avoid disturbing soil unnecessarily. During construction activities, which may include demolition, grading, or excavating, disturbed soil and soil piles shall be protected to prevent wind and rain erosion. Nature can provide effective BMPs with vegetation, slope lengths, and natural armoring. Vegetative cover can reduce erosion by shielding soil from wind and rain, which can slow runoff velocities, increasing soil infiltration, and physically hold the soil in place with root structure. Proper vegetation can provide a filtering effect for sheet flow by slowing down water as it flows across the surface and trapping sediment. A filter strip effectiveness is generally based on the width of the strip, the slope of the strip, and the size of the watershed discharging sheet flow through the strip. By maintaining appropriately sized filter strips, sediment migration can be greatly reduce. If an appropriate filter strip is not available, BMPs like silt fence, sand bags, fiber rolls or sediment logs, check dams and water bars must be employed. Other BMPs for channelized flow may also be required. These include energy dissipaters such as riprap at discharge areas to slow the velocity, interceptor dikes, sand bag berms, and swales.

Exposed soil surfaces should be stabilized as soon as possible through suitable vegetation, mulch, geotextile blankets, or other suitable material to support vegetation. Hard-armoring may be required for culvert crossings both on the upstream and downstream side of the culvert and through steep sections of the channel where channel velocities exceed 4 feet per second.

BMPs for dust and particulate generating activities and erosion are listed in Table 5-12. The California Water Board suggests using the following webpage as a starting point for further investigation of BMPs and their effectiveness:

http://www.waterboards.ca.gov/water_issues/programs/storm_water/bmp_database.shtml.

Table 5-12. BMPs for Dust/Particulate and Land Disturbances Activities

Targeted Constituents: <i>Sediment and Trash</i>	
Responsible Party: <i>60th Civil Engineer Squadron, Operations Flight</i>	
BMP	Description
Minimum BMPs	
Good Housekeeping	<ul style="list-style-type: none"> • Minimize or prevent material tracking <ul style="list-style-type: none"> ○ Use vacuum trucks with filter bags or mechanical sweepers with a wet system to clean up track outs ○ Clean roads and parking lots often to prevent the accumulation of dirt and debris ○ Do not grade or excavate if soil cannot be prevented from leaving site ○ Do Scheduling <ul style="list-style-type: none"> ○ Avoid work during rainy season ○ Avoid work during high wind events ○ Do not grade, excavate, or demolish buildings during high wind events • Operation and Maintenance <ul style="list-style-type: none"> ○ Avoid large or long term soil piles ○ Haul excess dirt off frequently during land disturbances ○ Do not allow piles to remain unprotected ○ Work carefully to avoid disturbing soil unnecessarily ○ Minimize size and number of soil and debris piles ○ Minimize dirt road traffic – minimize speed limits on dirt roads ○ Keep land disturbance areas damp when working the soil using water trucks to spray work area while not creating mud or runoff ○ Concrete rinse waters and saw cut slurry are to be collected for appropriate disposal ○ Concrete washout must not be able to reach surface water ○ Spray area immediately in front of equipment with water to minimize dust from materials being loaded into dump trucks ○ The velocity of runoff should be slowed as much as possible, and sheet flow should be maintained as long as possible ○ Cover all stored industrial materials that can be readily mobilized by contact with storm water ○ Prevent disposal of any rinse/wash waters or industrial materials into the storm water conveyance system ○ Collect and dispose of loose garbage and waste material regularly ○ Minimize authorized NSWDS from non-industrial areas (e.g., potable water, over wetting, wash-downs, etc.)
Preventive Maintenance	<ul style="list-style-type: none"> • Clean catch basin and grates of dirt and debris that blocks pipes • Operate and maintain equipment as required for efficient operation <ul style="list-style-type: none"> ○ Identify all equipment and systems used outdoors that may spill or leak pollutants ○ Establish an appropriate schedule for maintenance of identified equipment and systems; and • Schedule for maintenance/repair or replacement of defective equipment • Document all inspections and corrective action

Table 5-12. BMPs for Dust/Particulate and Land Disturbances Activities

Targeted Constituents: <i>Sediment and Trash</i>	
Responsible Party: <i>60th Civil Engineer Squadron, Operations Flight</i>	
BMP	Description
Minimum BMPs	
Spill Response (Call 911; Mobile Phone call 424-4911)	<ul style="list-style-type: none"> • Maintain the current ICP • Store spill response kits, including dry cleanup materials, in areas where spills might occur <ul style="list-style-type: none"> ○ Absorbent pads ○ Drain blockers
Material Handling and Waste Management	<ul style="list-style-type: none"> • Contain all stored non-solid industrial materials or wastes that can be transported or dispersed by the wind or contact with storm water • Cover waste disposal containers and storage containers when not in use • Divert run-on and storm water generated from within the facility away from all stockpiled materials • Clean all spills of industrial materials or wastes that occur during handling in accordance with the spill response procedures • Inspect equipment/vehicles prior to each anticipated rain event for leaking parts and take the necessary actions (move them to a protected location or contain the leaking material) • Perform maintenance indoors or in covered areas when appropriate <ul style="list-style-type: none"> ○ All parts washing should be performed in designated areas ○ Do not wash parts where wash waste cannot be captured ○ Use self-contained sinks/tanks when using solvents ○ Maintain waste fluid containers in leak-proof condition ○ Inspect equipment for damaged hoses and leaky gaskets • Repair or replace as necessary • Do not leave vehicles unattended during fueling • Use mobile fueling equipment only in designated areas • Store spill response kits, including dry cleanup materials, in areas where spills might occur • Use dry cleanup methods (e.g., kitty litter, absorbent fabrics) • Use drip pans or drop cloths during outside maintenance • If drip pans are exposed to rainwater, they must be a minimum of 6-inches deep and emptied every 24 hours into an OWS

Table 5-12. BMPs for Dust/Particulate and Land Disturbances Activities

Targeted Constituents: <i>Sediment and Trash</i>	
Responsible Party: <i>60th Civil Engineer Squadron, Operations Flight</i>	
BMP	Description
Minimum BMPs	
Erosion and Sediment Controls	<ul style="list-style-type: none"> • Keep dust and particulates damp, only enough water for dust control. Do not create runoff <ul style="list-style-type: none"> ○ Spray water on structures being demolished ○ Spray water on debris piles being moved or loaded for hauling off Base ○ Spray water on areas being graded or excavated as well as access roads and parking areas being traveled by equipment ○ Use covered roll-off dumpsters to minimize handling and exposure to wind; cover at the end of every shift • Covers <ul style="list-style-type: none"> ○ Keep debris piles covered when windy or until site removal has occurred by using a secured tarp with ropes, weighted sand bags and/or securely fasten with stakes. ○ Prevent rain from washing away soil ○ Prevent soil from becoming saturated and sliding • Vegetation <ul style="list-style-type: none"> ○ Preserve existing vegetation ○ Maintain 50 foot vegetated buffer strip to all waterways ○ Divert flow away from exposed soil ○ Slow flow to reduce velocity and erosion ○ Filter flow to remove sediment ○ Retain flow to allow percolation and reduce runoff
Employee Training Program	<ul style="list-style-type: none"> • Train employees on the content and goals of the SWPPP <ul style="list-style-type: none"> ○ Train employees in general construction BMPs such as those found in California RWQCB Erosion and Sediment Control Field Manual and U. S. EPA's NPDES National Menu of Best Management Practices for Construction • Train employees in the areas of spill prevention and responses, good housekeeping, material management practices, and preventive maintenance practices • Provide a training schedule • Maintain documentation of all completed training classes and the personnel that received training in the SWPPP • If a Discharger enters Level 1 status, appropriate team members shall be trained by a QISP

Table 5-12. BMPs for Dust/Particulate and Land Disturbances Activities

Targeted Constituents: <i>Sediment and Trash</i>	
Responsible Party: <i>60th Civil Engineer Squadron, Operations Flight</i>	
BMP	Description
Minimum BMPs	
Quality Assurance and Record Keeping	<ul style="list-style-type: none"> • Develop and implement management procedures to ensure that appropriate staff implements all elements of the SWPPP, including the Monitoring Implementation Plan • Develop a method of tracking and recording the implementation of BMPs identified in the SWPPP • Maintain the BMP implementation records, training records, and records related to any spills and clean-up related response activities for a minimum of five years
Advance BMPs	
Control Devices and Secondary Containment Structures	<ul style="list-style-type: none"> • Prevent flow from crossing disturbed areas. Use interceptor dikes, sand bag berms and swales. Divert flow into natural grass-lined drainage courses, ditches, or culverts. Exposed soil surfaces should be planted and/or covered with mulch, geotextile blankets or other suitable material to support vegetation as soon as it is practical. • Methods to slow and filter flow include sand bags, silt fences, fiber rolls, vegetation, check dams, retention basins, gravel berms, hay bales. Use energy dissipaters, such as riprap, at discharge areas to slow the velocity of the flow. http://www.waterboards.ca.gov/water_issues/programs/storm_water/bmp_database.shtml

5.6. Authorized Non-Storm Water Discharges

Travis AFB maintains a limited number of NSWSD to minimize the use of potable water and to comply with Executive Order 13423 to reduce water consumption by 2 percent annually. In the event that discharge is observed during a non-storm event and not one of the following authorized NSWSD, it will be considered an illegal discharge under Travis Municipal Separate Storm Sewer System (MS4) program. This discharge will be investigated to determine the source and if it should be added to the authorized NSWSD or corrected and eliminated under the MS4's Illicit Discharge Detection and Elimination Program.

5.6.1. Water Distribution System Maintenance.

Potable water pipes are periodically flushed during maintenance activities. Fire hydrants are flushed at 800 gallons per minute (GPM) for 5 minutes on a quarterly basis whereas potable water pipes are periodically flushed during maintenance activities. Water is discharged to the paved or grassy areas. The primary potential pollutant source is sediment and chlorine. The 60 CES Utilities Hydrant Flushing Plan contains detailed procedures. Care shall be taken to prevent soil erosion from the force of the discharge and concentrated flows.

5.6.2. Landscape/Lawn Irrigation

Lawns throughout the industrial area are irrigated during the dry season. Irrigation is controlled to minimize discharge to the storm drainage system. Potential pollutants include sediment, nutrients and chlorine.

5.6.3. Condensate

Minimal discharge from air conditioners and compressor units occurs throughout the Base. Condensate is not considered a significant source of NSW or pollutants.

5.6.4. Non-Contaminated Groundwater

Groundwater is relatively shallow near the Duck Pond and may flow into the storm drain system. Groundwater seeps not associated with a groundwater plume are acceptable. Water from a building sump or water from construction dewatering may also be considered an acceptable NSW.

5.6.5. Pressure Washing of Buildings and Sidewalks

Pressure washing of buildings and sidewalks using ONLY potable water is an authorized NSW. Detergents are not allowed. Wash water must be discharged onto rock and/or vegetated ground for infiltration. It would be acceptable to capture this water and discharge onto vegetated ground if a suitable discharge point is not present at the wash site. The Discharge Manager shall maintain a log to annotate discharges which will be reported on a quarterly basis starting 1 July 2015 to 60 CES/CEIE Water Program Manager for self-reporting in the Annual Report.

5.6.6. BMPs for Authorized Non-Storm Water Discharges

BMPs are required for authorized NSWs to prevent erosive properties and carrying capacities of concentrated flow. Table 5-13 describes BMPs used during authorized NSWs. The following table describes how to implement BMPs required for authorized NSWs.

Table 5-13. BMPs for Authorized Non-Storm Water Discharges

Targeted Constituents: <i>Concrete, Chlorine, Soil Erosion</i>	
Responsible Party: <i>60th Civil Engineer Squadron, Operations Flight, Horizontal Shop</i>	
BMP	BMP Description
Minimum BMPs	
Good Housekeeping	<ul style="list-style-type: none"> • Prevent disposal of any rinse/wash waters or industrial materials into the storm water conveyance system • Collect and dispose of loose garbage and waste material regularly • Minimize authorized NSWDs from non-industrial areas (e.g., potable water, fire hydrant testing, etc.) that contact industrial areas of the facility • Shut off the water source to isolate a broken line, sprinkler, or valve as soon as possible to minimize the loss of water • Repair broken water lines as soon as possible • Manage irrigation systems to ensure the appropriate amount of water is used and runoff is minimized
Preventive Maintenance	<ul style="list-style-type: none"> • Operate and maintain equipment as required for efficient operation <ul style="list-style-type: none"> ○ Identify all equipment and systems used outdoors that may spill or leak pollutants ○ Establish an appropriate schedule for maintenance of identified equipment and systems • Schedule for maintenance/repair or replacement of defective equipment • Document all inspections and corrective action
Spill Response (Call 911; Mobile Phone call 424-4911)	<ul style="list-style-type: none"> • Maintain the current ICP • Store spill response kits, including dry cleanup materials, in areas where spills might occur <ul style="list-style-type: none"> ○ Absorbent pads ○ Drain blockers
Material Handling and Waste Management	<ul style="list-style-type: none"> • Facility operators must ensure that any water generated from steam cleaning operations is collected and properly disposed • Clean all spills of industrial materials or wastes that occur during handling in accordance with the spill response procedures • Inspect equipment for damaged hoses and leaky gaskets and repair or replace as necessary • Store spill response kits, including dry cleanup materials, in areas where spills might occur • Use dry cleanup methods (e.g., kitty litter, absorbent fabrics)
Erosion and Sediment Controls	<ul style="list-style-type: none"> • Ensure water is discharged onto a hard surface to absorb erosive forces. Observe discharge paths and prevent erosion from occurring
Employee Training Program	<ul style="list-style-type: none"> • Train employees on the content and goals of the SWPPP • Train employees in the areas of spill prevention and responses, good housekeeping, material management practices, and preventive maintenance practices • If a Discharger enters Level 1 status, appropriate team members shall be trained by a QISP

Table 5-13. BMPs for Authorized Non-Storm Water Discharges

Targeted Constituents: <i>Concrete, Chlorine, Soil Erosion</i>	
Responsible Party: <i>60th Civil Engineer Squadron, Operations Flight, Horizontal Shop</i>	
BMP	BMP Description
Minimum BMPs	
Quality Assurance and Record Keeping	<ul style="list-style-type: none"> • Perform quarterly inspections to identify authorized NSWDS and assess the need for additional BMPs • Develop a method of tracking and recording the implementation of BMPs identified in the SWPPP • Maintain the BMP implementation records, training records, and records related to any spills and clean up related response activities for a minimum of five years.
Advance BMPs	
N/A	

6.0. Monitoring Implementation Plan

Travis AFB has implemented a Monitoring Implementation Plan in accordance with the requirements of this General Permit. The Storm Water Manager or his/her appointee will conduct monthly visual observations and monitor the Travis's subcontractor for compliance with sampling requirements. The subcontractor will conduct sampling of the permitted outfalls in accordance with the Sample Collection and Handling Instructions found in Appendix H of the General Permit. The Monitoring Implementation Plan includes the following items: The following discharge monitor locations have been defined in this SWPPP as following locations as depicted on Figure4-4a.

- A1 and A2, the two points where Union Creek flows onto Travis AFB.
- Outfall I, the point down gradient of confluence of Union Creek prior to discharging off-Base, Sub-Watersheds 1 through 5.
- Outfall VI, Tributary of Union Creek below Outfall I, Sub-Watershed 6.
- Outfall B2, small ephemeral drainage ways from a small portion of Taxiway T where planes may be temporarily parked with limited industrial activities. Water discharging from Outfall B2 flow into tributaries of Luco Slough, Sub-Watershed 8.
- Outfall B3, small ephemeral drainage ways from a small portion of Taxiway T where planes may be temporarily parked with limited industrial activities. Water discharging from Outfall B3 flow into tributaries of Luco Slough, Sub-Watershed 8.

Travis AFB has defined supplemental sampling points that may also be monitored if substandard water quality is found at one or more of the regulated sampling points. These points may include Outfall 2-2, 2-3, 2-4, Outfall-III, -IV, and/or Outfall-V. All secondary containment structures require passing the visual monitoring procedures prior to discharging accumulated storm water. These procedures are further discussed in Appendix A of this SWPPP. Results from the supplemental and the secondary containment releases shall be recorded and maintained with the Storm Water Manager's site records. Records shall be maintained on-site for a minimum of five years.

The Storm Water Sampling and Monitoring Plan is included with this SWPPP as Appendix A.

6.1. Monthly Visual Observations of Industrial Areas

Travis AFB shall conduct at least one visual inspection, of industrial areas in each of the sub-watersheds (1 through 8) each month, during normal business hours for the following items:

- Indication of potential unauthorized NSWD and their sources and authorized NSWD points to insure they are compliant with the General Permit.
- Outdoor industrial equipment and storage areas insuring BMPs are working correctly and operating effectively for the given industrial activities.

The findings of each month's visual observations shall be reported within the annual report. A Visual Observation form is included in Appendix A.

6.2. Analytical Sampling of Qualifying Storm Events

Travis AFB shall collect and analyze storm water samples from two (2) Qualifying Storm Events (QSEs) within the first half of each reporting year (July 1 to December 31), and two (2) QSEs within the second half of each reporting year (January 1 to June 30). A QSE is a precipitation event that produces a discharge from at least one or more of the sub watersheds and is preceded by 48 hours with no discharge from any of the industrial areas that is not considered an authorized NSWD. Samples from each of the permitted outfall locations shall be collected within four (4) hours of the start of the discharge or the start of facility operations if the QSE occurs within the previous 12-hour period (e.g., for storms with discharges that begin during the night or outside typical operation hours).

As described in the sampling plan, Travis AFB shall collect Total Suspended Solids (TSS), Oil and Grease (O&G) and pH from the primary permitted outfalls. Due to Travis AFB's minimal use of glycol-based deicing chemicals, sampling for Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD) and Nitrates (NH₃) is not required under Sector S. Only airports where a single Discharger, or a combination of permitted facilities use more than 100,000 gallons of glycol-based deicing chemicals and/or 100 tons or more of urea on an average annual basis, are required to monitor these parameters for those outfalls that collect runoff from areas where deicing activities occur. Travis AFB is not considered a "Primary Airport" with commercial service with more than 10,000 passengers each year as one of the minimum requirements under U.S. EPA regulations at 40 Code of Federal Regulations Chapter I Subchapter N for federal Storm Water Quality Based Effluent Limitation and/or numeric action levels. Other sample parameters may be added at Travis AFB discretion, if industrial activities change or present justifications to increase sampling parameters in accordance with any updated SWPPP pollutant source assessment.

Travis AFB shall ensure all laboratory analyses are conducted according to test procedures under 40 Code of Federal Regulations part 136, including the observation of holding times, unless other test procedures have been specified in this General Permit or by the RWQCB.

6.2.1. Sampling Event Visual Observations

Sampling event visual observations shall be conducted at the same time sampling occurs at a discharge location. At each discharge location when a sample is obtained, the sample team shall observe the discharge of storm water associated with industrial activity.

The sample team shall ensure that visual observations of storm water discharged from containment sources (e.g. secondary containment or storage ponds) are conducted at the time that the discharge is sampled.

The sample team shall visually observe and record the presence or absence of floating and suspended materials, O&G, discolorations, turbidity, odors, trash/debris, and source(s) of any discharged pollutants.

The sample team shall maintain records of all visual observations. Records shall include the date, approximate time, locations observed, presence and probable source of any observed pollutants, name of person(s) that conducted the observations, and any response actions and/or additional SWPPP revisions necessary in response to the visual observations.

Travis AFB shall revise BMPs as necessary when the visual observations indicate pollutant sources have not been adequately addressed in the SWPPP.

6.2.2. Sampling Analysis Reporting

Travis AFB shall submit all sampling and analytical results for all qualifying storm events for the permitted outfalls via Storm Water Multiple Application and Report Tracking System (SMARTS) within 30 days of obtaining all results for each sampling event. Sampling results shall provide the method detection limit when an analytical result from samples taken is reported by the laboratory as a “non-detect” or less than the method detection limit. A value of zero is not an acceptable result and thus, shall not be reported.

Travis AFB shall provide the analytical result from samples taken that is reported by the laboratory as below the minimum level (often referred to as the reporting limit) but above the method detection limit. Reported analytical results will be averaged automatically by SMARTS. For any calculations required by this General Permit, SMARTS will assign a value of zero (0) for all results less than the minimum level as reported by the laboratory.

Travis AFB shall compare all primary sampling and analytical results from each distinct sample site to determine if a Numeric Action Level (NAL) exceedance has occurred. For the purposes of this comparison, the reporting year is 1 July through 30 June.

The NAL shall be determined using the average concentration for each sampling parameter, using the results of all the sampling results for the entire facility for the reporting year (i.e., all “effluent” data) and compare this to the corresponding annual NAL values in the table below. The instantaneous maximum NALs are calculated from a California Water Board dataset.

Table 6-1. Numeric Action Level

Parameter	Test Method	Units	Annual NAL	Instantaneous Maximum NAL
pH	See Section XI.C.2	pH units	N/A	Less than 6.0 or greater than 9.0
Total Suspended Solids (TSS)	SM 2540-D mg/L 100 400	mg/L	100	400
Total Oil & Grease (O&G)	EPA 1664A	mg/L	15	25

An annual NAL exceedance occurs when the average of all the analytical results for a parameter from samples taken within a reporting year exceeds the annual NAL value for the corresponding parameter listed in Table 6-2. An instantaneous maximum NAL exceedance occurs when two or more analytical results from samples taken for any single parameter within a reporting year exceed the instantaneous maximum NAL value.

At the beginning of the NOI coverage, Travis AFB has a Baseline status for all parameters. The Baseline status for any given parameter shall change to Level 1 status if sampling results indicate an NAL exceedance for that same parameter. Level 1 status will commence on 1 July following the reporting year during which the exceedance(s) occurred.

By October 1 following commencement of Level 1 status for any parameter exceeding an NAL, Travis AFB shall complete an evaluation, with the assistance of a QISP, for the industrial pollutant sources at the facility relating to the NAL exceedance(s). This evaluation shall identify the existing corresponding BMPs, any additional BMPs, and SWPPP revisions necessary to prevent future NAL exceedances.

Travis AFB shall as soon as practicable, but no later than January 1 following the start of Level 1 status, revise the SWPPP as necessary and implement any additional BMPs identified in the evaluation. Travis AFB shall certify and submit via SMARTS a Level 1 Exceedance Response Action (ERA) report prepared by a QISP that includes a summary of the Level 1 ERA evaluation and, provide a detailed description of the SWPPP revisions and any additional BMPs for each parameter that exceeded an NAL.

Level 1 status for a parameter will return to Baseline status once a Level 1 ERA report has been successfully completed, all identified additional BMPs have been implemented, and results from four (4) consecutive QSEs that were sampled following BMP implementation indicate no additional NAL exceedances for that parameter.

Level 1 status for any given parameter shall change to Level 2 status if sampling results indicate an NAL exceedance for that same parameter while the Discharger is in Level 1. Level 2 status will commence on July 1 following the reporting year during which the NAL exceedance(s) occurred.

If Level 2 status occurs, Travis AFB shall implement the Level 2 requirements as stated in the ERA in section XII of the General Permit

A NAL exceedances defined by the General Permit are not, in and of themselves, violations of this General Permit. A Discharger that does not fully comply with the Level 1 status and/or Level 2 status ERA requirements, when required by the terms of this General Permit, shall be in violation of the General Permit.

6.3. Annual Comprehensive Facility Compliance Evaluation

The purposes of inspections are to evaluate areas exposed to rainfall, determine if these areas are contributing pollutants to storm water runoff, and determine if additional control measures or BMPs are necessary. These inspections should include control measures that treat, transport, or otherwise influence storm water runoff.

The 60 CES/CEIE shall conduct a comprehensive site compliance evaluation during each reporting period (1 July to 30 June). The SWPPP shall be revised as appropriate, and the revisions implemented within 90 days of the annual evaluation. At a minimum, annual evaluations shall consist of:

- A review of all sampling, visual observation, and inspection records conducted during the previous reporting year
- An inspection of all areas of industrial activity and associated potential pollutant sources for evidence of, or the potential for, pollutants entering the storm water conveyance system
- An inspection of all drainage areas previously identified as having industrial activities and materials
- An inspection of equipment needed to implement the BMPs
- An inspection of all permanent BMPs
- A review and effectiveness assessment of all BMPs for each area of industrial activity and associated potential pollutant sources to determine if the BMPs are properly designed, implemented, and are effective in reducing and preventing pollutants in industrial storm water discharges and authorized NSWDS
- An assessment of any other factors needed to comply with the requirements of the General Permit.

Following the evaluation, the description of potential pollutant sources, proposed pollution prevention measures, and identified controls requiring modifications shall be summarized in a report. Each report should include the date(s) of the inspection, major observations relating to the implementation of this SWPPP, and any required actions. These reports will be retained for a period of five years or until the permit terminates. This report may identify incidents of non-compliance. When an inspection does not identify any incidents of non-compliance, the report should state that the facility complies with this plan's requirements. Completed forms are retained with the SWPPP to support the annual report. Records of the corrected actions for areas of non-compliance shall be attached to the corresponding report.

6.4. Annual Report

Travis AFB shall certify and submit via SMARTS an annual report no later than 15 July following each reporting year using the standardized format and checklists in SMARTS. The annual report shall include:

- A Compliance Checklist that indicates whether Travis AFB has complied with, and has addressed all applicable requirements of the General Permit
- An explanation for any non-compliance of requirements within the reporting year, as indicated in the Compliance Checklist
- An identification, including page numbers and/or sections, of all revisions made to the SWPPP within the reporting year
- The date(s) of the Annual Evaluation.

6.4.1. SWPPP Implementation and Revisions

The SWPPP shall be reviewed, following the Annual Comprehensive Site Facility Compliance Evaluation, and revised as necessary by 60 CES/CEIE. In accordance with General Permit requirements, the SWPPP shall be revised and revisions implemented within 30 days of an identified deficiency. The SWPPP will be amended if the Base makes changes to industrial activities that significantly increase the quantities of pollutants in storm water discharge, create a new area of industrial activity at the facility exposed to storm water, or begin a new industrial activity that would introduce a new pollutant source.

Travis AFB shall implement their CAS000001 SWPPP by July 1, 2015. The SWPPP shall remain on-site and be available for review by the RWQCB. If the Water Board determines the SWPPP does not meet minimum permit requirements, a SWPPP revision and implementation schedule shall be submitted to the Water Board with subsequent modifications. Written certification will be provided to the Water Board within 14 days after implementing the SWPPP revisions. Travis AFB shall revise their SWPPP whenever necessary, certify, and submit via SMARTS within 30 days of significant revision(s). With the exception of significant revisions, Travis AFB is not required to certify and submit via SMARTS their SWPPP revisions more than once every three (3) months in the reporting year.

As part of the SWPPP implementation, Travis AFB shall develop a method of tracking and recording the implementation of BMPs identified in the SWPPP by maintain the BMP implementation records, training records, and records related to any spills and clean-up related response activities. These records shall be maintained for a minimum of five (5) years.

6.5. Training

Personnel responsible for monitoring ongoing industrial activity for compliance to the SWPPP and implementing BMPs shall receive annual training provided by 60 CES/CEIE. Training shall focus on managing storm water, spill response, good housekeeping or practical procedures to maintain a clean and orderly facility, material handling procedures, and actions necessary to implement BMPs identified in the SWPPP. Training will be conducted through a series of presentations to appropriate personnel. In addition to the introductory training course, refresher-training courses will be conducted at least once per year and more frequently when required.

Typical training topics and procedures shall include:

- Good Housekeeping generally consists of practical procedures to maintain a clean and orderly facility.
- Preventive Maintenance to include the regular inspection and maintenance of structural storm water controls (catch basins, oil/water separators, etc.) and other facility equipment and systems.
- Spill Response to include the procedures defined in the SPCC for spill clean-up procedures and necessary clean-up equipment based upon the quantities and locations of significant materials that may spill or leak.
- Material Handling and Storage that includes procedures to minimize the potential for spills and leaks and to minimize exposure of materials into storm water.
- Waste Handling/Recycling – procedures or processes to handle, store, or dispose of waste materials or recyclable materials.
- Recordkeeping and Internal Reporting to include the procedures to ensure that all records of inspections, spills, maintenance activities, corrective actions, visual observations, etc., are developed, retained, and provided, as necessary, to the appropriate facility personnel.
- Erosion Control and Site Stabilization to include a description of sediment and erosion control activities that may include the planting and maintenance of vegetation, diversion of run-on and runoff, placement of sandbags, silt screens, or other sediment control devices, etc.
- Inspections to include the preventative maintenance inspections identified above, and an inspection schedule of all potential pollutant sources. Tracking and follow-up procedures shall be described to ensure adequate corrective actions are taken and SWPPPs are made.
- Quality Assurance procedures to ensure that elements of the SWPPP and Monitoring Program are adequately conducted.

6.5.1. Requirements

A QISP who has completed a State Water Board-sponsored or approved QISP training course must register as a QISP via SMARTS. Upon completed registration, the State Water Board will issue a QISP identification number. If Travis AFB becomes a Level 1 discharger, the 60 CES/CEIE must ensure that the designated QISP provides sufficient training to the appropriate team members assigned to perform activities required by the General Permit.

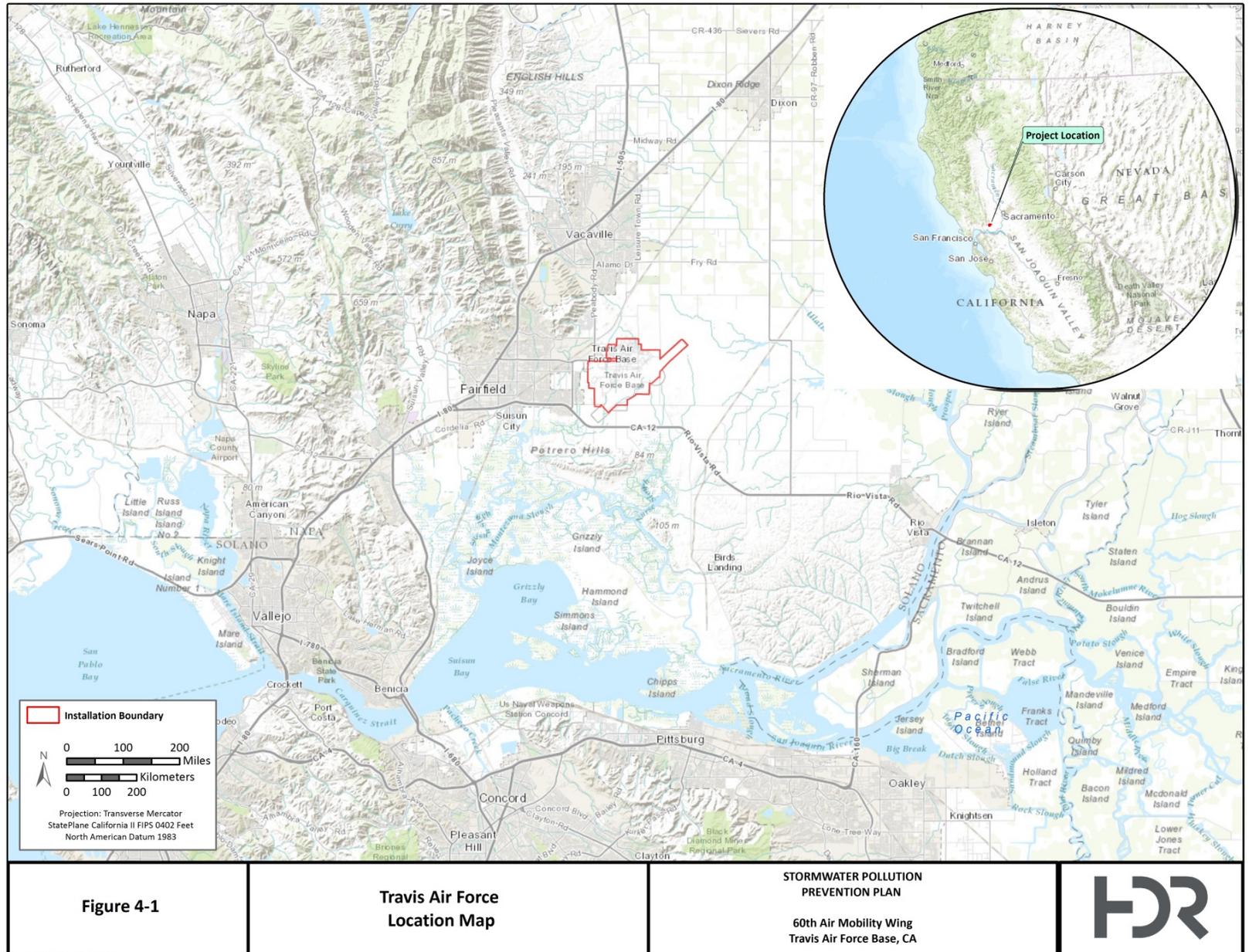
To improve compliance and maintain consistent implementation of General Permit, Travis AFB is required to designate a QISP for each facility that has entered Level 1 status in the ERA. A QISP may be assigned to more than one facility. The QISP must assist in completing the Level 1 status and Level 2 status ERA requirements as specified in Section XII of this General Permit. A QISP is also responsible for assisting with discharge requirements if one or more of the outfalls discharges into a water body with a 303(d) listed impairment, demonstrate eligibility for

coverage through preparing the data and/or information required in Section VII.B of the General Permit.

All engineering work, subject to the Professional Engineers Act (Bus. & Prof. Code § 6700, et seq.), and required by this General Permit shall be performed by a California licensed professional engineer. California licensed professional civil, industrial, chemical, and mechanical engineers and geologists have licenses that have professional overlap with the topics of this General Permit. The California Department of Consumer Affairs, Board for Professional Engineers, Land Surveyors and Geologists (CBPELSG) provides the licensure and regulation of professional civil, industrial, chemical, and mechanical engineers and professional geologists in California. The State Water Board is developing a specialized self-guided State Water Board-sponsored registration and training program specifically for these CPBELSG licensed engineers and geologists in good standing with CBPELSG.

FIGURES

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Source: ESRI Streetmap 2010

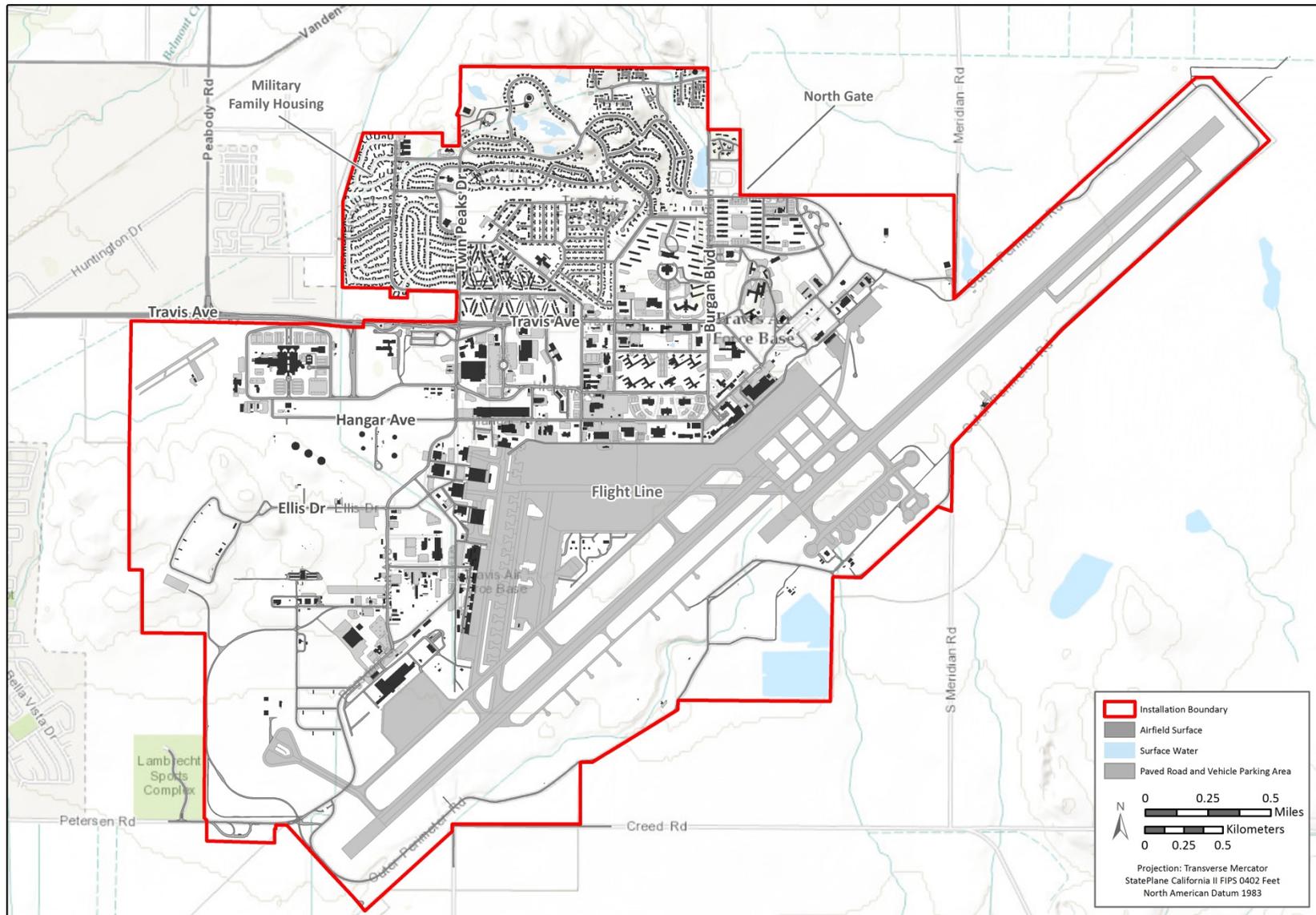


Figure 4-2

Travis Air Force Site Map

STORMWATER POLLUTION PREVENTION PLAN
60th Air Mobility Wing
Travis Air Force Base, CA



Source: ESRI Streetmap 2010

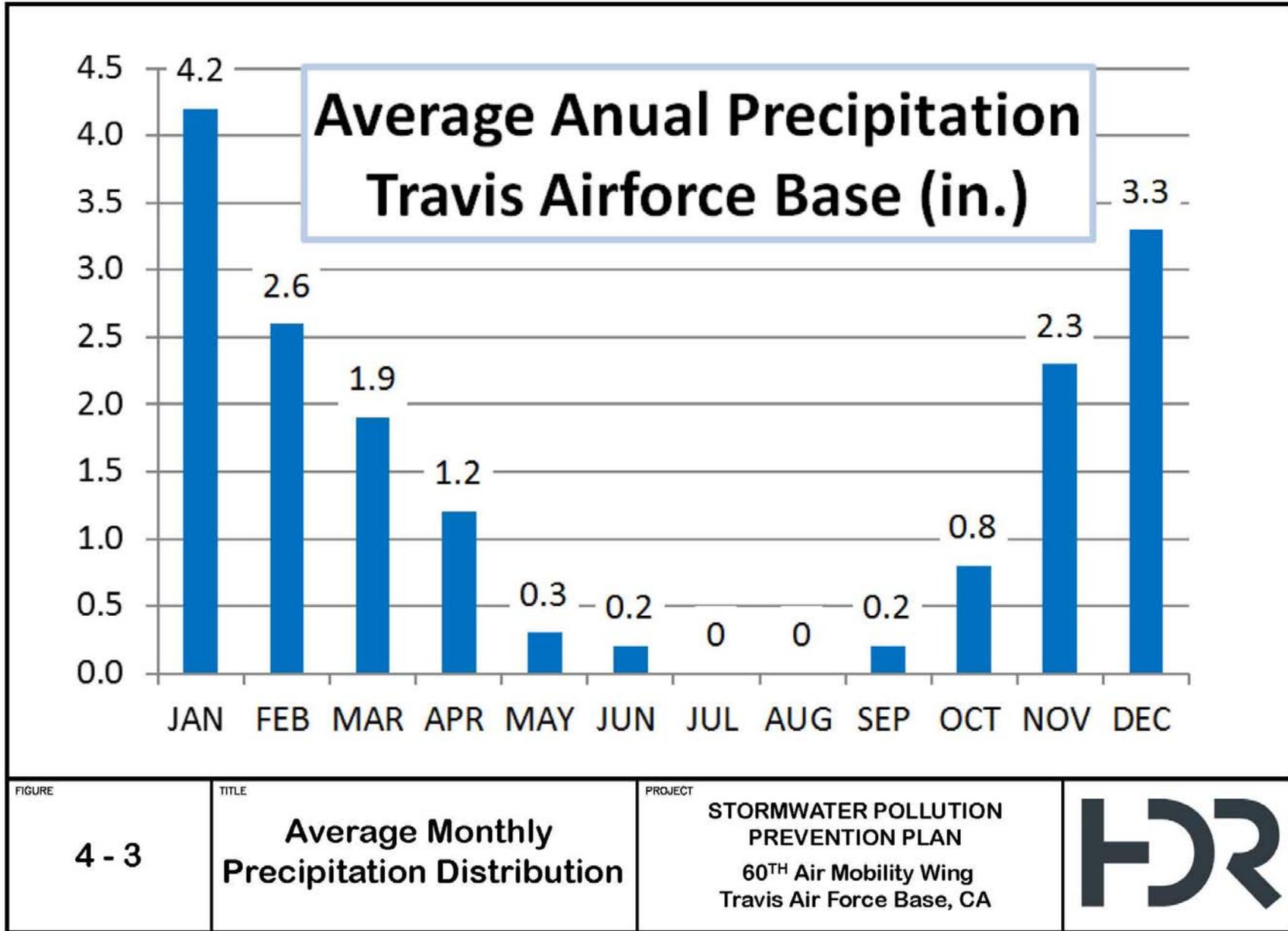


FIGURE
4 - 3

TITLE
**Average Monthly
Precipitation Distribution**

PROJECT
**STORMWATER POLLUTION
PREVENTION PLAN
60TH Air Mobility Wing
Travis Air Force Base, CA**





Figure 4-4A

Travis Air Force

General Hydrology Map

This Figure is not included for reasons of National Security as it provides sensitive information that is considered FOR OFFICIAL USE ONLY (FOUO).

Figure 4-4B

Travis Air Force

Storm Drain Properties

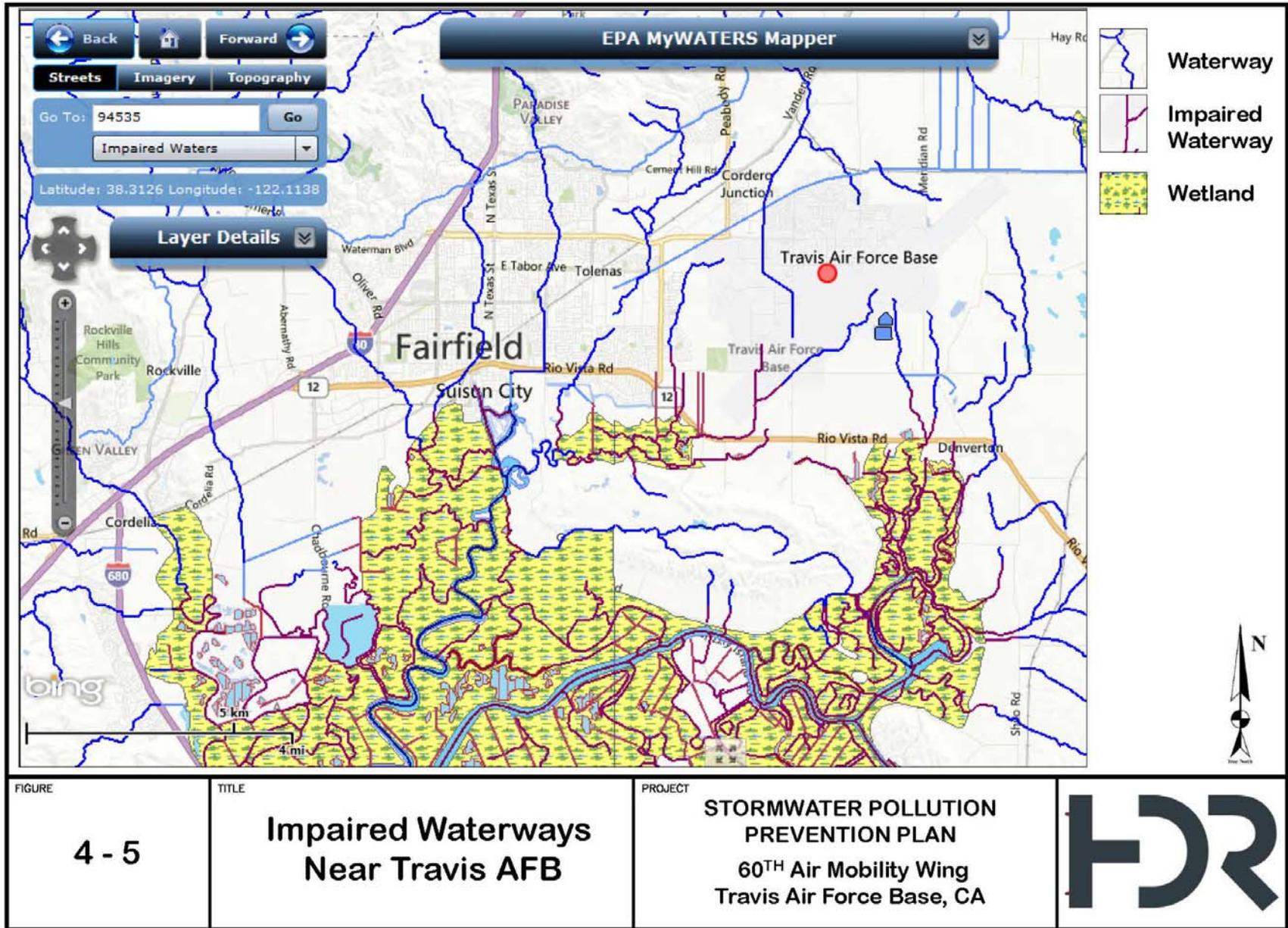
This Figure is not included for reasons of National Security as it provides sensitive information that is considered FOR OFFICIAL USE ONLY (FOUO).

Figure 4-4C

Travis Air Force

Potential Industrial Pollutant Source Areas

This Figure is not included for reasons of National Security as it provides sensitive information that is considered FOR OFFICIAL USE ONLY (FOUO).



Glossary

Aerial Deposition

Total suspended particulate matter found in the atmosphere as solid particles or liquid droplets. Chemical composition of particulates varies widely, depending on location and time of year. Sources of airborne particulates include but are not limited to: dust, emissions from industrial processes, combustion products from the burning of wood and coal, combustion products associated with motor vehicle or non-road engine exhausts, and reactions to gases in the atmosphere. Deposition is the act of these materials being added to a landform.

Beneficial Uses

As defined in the California Water Code, beneficial uses of the waters of the State that may be protected against quality degradation, include but are not limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

Best Available Technology Economically Achievable (BAT)

As defined by U.S. Environmental Protection Agency (U.S. EPA), BAT is a technology-based standard established by the Clean Water Act (CWA) as the most appropriate means available on a national basis for controlling the direct discharge of toxic and nonconventional pollutants to navigable waters. The BAT effluent limitations guidelines, in general, represent the best existing performance of treatment technologies that are economically achievable within an industrial point source category or subcategory.

Best Conventional Pollutant Control Technology (BCT)

As defined by U.S. EPA, BCT is a technology-based standard for the discharge from existing industrial point sources of conventional pollutants including biochemical oxygen demand (BOD), total suspended sediment (TSS), fecal coliform, pH, oil and grease.

Best Professional Judgment (BPJ)

The method used by permit writers to develop technology-based NPDES permits conditions on a case-by-case basis using all reasonably available and relevant data.

Best Management Practices (BMPs)

General term used for a variety of pollutant control measures, including both operational practices and physical structures. BMPs can include source controls (controls that keep pollutants out of runoff) and treatment controls (controls that remove pollutants from runoff). Scheduling of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Chain of Custody

Form used to track sample handling as samples progress from sample collection to the laboratory. The chain of custody is also used to track the resulting analytical data from the laboratory to the client. Chain of custody forms can be obtained from an analytical laboratory upon request.

Clean Water Act (CWA)

Enacted in 1977, the CWA gave U.S. EPA the authority to control point-source storm water discharges that convey pollutants to the waters of the United States. Congress amended the CWA in 1987 to create a new section devoted to storm water permitting. In accordance with the 1987 revisions, the U.S. EPA adopted regulations in 1990 that established requirements for National Pollutant Discharge Elimination System (NPDES) permits for discharge of storm water from industries and municipalities.

Debris

Litter, rubble, discarded refuse, and remains of destroyed inorganic anthropogenic waste.

Detected Not Quantifiable

A sample result that is between the Method Detection Limit (MDL) and the Minimum Level (ML).

Discharger

A person, company, agency, or other entity that is the operator of the industrial facility covered by this General Permit.

Drainage Area

The area of land that drains water, sediment, pollutants, and dissolved materials to a common discharge location.

Effective Date

The date, set by the State Water Resources Control Board (State Water Board), when at least one or more of the General Permit requirements take effect and the previous permit expires. This General Permit requires most of the requirements (such as SMARTs submittals, minimum BMPs, sampling and analysis requirements) to take effect on July 15, 2015.

Effluent

Any discharge of water either to the receiving water or beyond the property boundary controlled by the Discharger.

Effluent Limitation

Any numeric or narrative restriction imposed on quantities, discharge rates, and concentrations of pollutants that are discharged from point sources into waters of the United States, waters of the contiguous zone, or the ocean.

U.S. Environmental Protection Agency (EPA):

The federal agency with authority for enacting and enforcing many environmental laws.

Erosion

The process by which soil particles are detached and transported by the actions of wind, water or gravity.

Erosion Control BMPs

Vegetation, such as grasses and wildflowers, and other materials, such as straw, fiber, stabilizing emulsion, protective blankets, etc., placed to stabilize areas of disturbed soils, reduce loss of soil due to the action of water or wind, and prevent water pollution.

Facility

A collection of industrial processes discharging storm water associated with industrial activity within the property boundary or operational unit.

Facility Manager

The individual responsible for overseeing implementation of the SWPPP

Field Measurements

Testing procedures performed in the field with portable field-testing kits or meters.

General Permit

The National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Industrial Activities, issued by the State of California Water Resources Control Board.

Good Housekeeping BMPs

The act of maintaining clean, orderly facility areas to prevent potential pollutants from contacting storm water. BMPs designed to reduce or eliminate the addition of pollutants through analysis of pollutant sources, implementation of proper handling/disposal practices, employee education, and other actions.

Herbicide

A chemical substance used to kill unwanted plants (weeds).

Illegal Dumping

Any non-storm water flow either intentionally or inadvertently discharged to the District's storm drainage system. However, discharges specifically exempted pursuant to federal and state regulations, local ordinances, and the District's Prohibited and Conditionally allowable Non-Storm Water Discharges Policy, and discharges made pursuant to NPDES point source discharge permits, shall not be considered illegal dumping. Also referred to as "illicit discharge".

Illicit Connection

Any physical connection to a storm drain system which allows non- storm water or pollutants to enter District channels, basins, storm drains, or pumping stations. This includes, but is not limited to, (1) any connections that convey sewage, process wastewater, and wash water to the storm drain system, (2) all connections from indoor drains or sinks, and (3) all unapproved, undocumented drains from loading docks and hazardous materials handling areas directly connected to the storm drain system.

Industrial Materials

Includes, but is not limited to: raw materials, recyclable materials, intermediate products, final products, by product, waste products, fuels, materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); any chemical the facility is required to report pursuant to Section 313 of Title III of Superfund Amendments and Reauthorization Act (SARA); fertilizers; pesticides; and waste products such as ashes, slag, and sludge and that are used, handled, stored, or disposed in relation to a facility's industrial activity.

Metals

Elements such as mercury, lead, zinc, nickel, and cadmium that are of environmental concern because they can accumulate in the food chain and, in high enough concentrations can be toxic.

Method Detection Limit

The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero.

Minimum Level

The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

Monitoring Implementation Plan

Planning document included in the Storm Water Pollution Prevention Plan (SWPPP). Dischargers are required to record information on the implementation of the monitoring requirements in this General Permit. The MIP should include relevant information on: the Monthly Visual Observation schedule, Sampling Parameters, Representative Sampling Reduction, Sample Frequency Reduction, and Qualified Combined Samples.

Monitoring Requirements

Includes sampling and analysis activities as well as visual observations.

National Pollutant Discharge Elimination System (NPDES)

A permitting process established pursuant to the Clean Water Act that regulates the release of pollutants to waters of the United States. It includes permits for discharges of pollutants from both point sources and non-point sources.

Natural Background

Pollutants including substances that are naturally occurring in soils or groundwater. Natural background pollutants do not include legacy pollutants from previous activity at a facility, or pollutants in run-on from neighboring sources which are not naturally occurring.

New Discharge(r)

A facility from which there is a discharge, that did not commence the discharge at a particular site prior to August 13, 1979, which is not a new source as defined in 40 Code of Federal Regulations 122.29, and which has never received a finally effective NPDES permit for discharges at that site. See 40 Code of Federal Regulations 122.2.

Non-Point Source Pollution

Pollution that comes from dispersed or poorly defined sources (such as the oil and grime on paved surfaces) rather than a single point (such as the discharge from an industrial pipe).

Non-Storm Water Discharge

Any discharge to surface waters, to a storm drain, or to any other storm water drainage facility that is not composed entirely of storm water.

Examples of typical non-storm water discharges include process wastewater, non-contact cooling waters, and sanitary wastewater.

Non-Structural BMP

Planning, design, management, and education practices that reduce the generation and accumulation of pollutants in storm water.

Notice of Intent (NOI)

Located in Attachment 3 of the General Permit, the NOI is the application form used to obtain the permit. The NOI indicates the facility's intent to comply with the terms of the permit

Numeric Action Level (NAL) Exceedance

Annual NAL exceedance - the Discharger shall determine the average concentration for each parameter using the results of all the sampling and analytical results for the entire facility for the reporting year (i.e., all "effluent" data) and compare this to the corresponding Annual NAL values in Table 2 of the General Permit. For Dischargers using composite sampling or flow measurement in accordance with standard practices, the average concentrations shall be calculated in accordance with the U.S. EPA Guidance Manual for the Monitoring and Reporting Requirements of the NPDES Multi-Sector Storm Water General Permit. An annual NAL

exceedance occurs when the average of all the analytical results for a parameter from samples taken within a reporting year exceeds an annual NAL value for that parameter listed in Table 2 (or is outside the NAL pH range);

Instantaneous maximum NAL exceedance - the Discharger shall compare all sampling and analytical results from each distinct sample (individual or composite) to the corresponding Instantaneous maximum NAL values in Table 2. An instantaneous maximum NAL exceedance occurs when two or more analytical results from samples taken for any parameter within a reporting year exceed the instantaneous maximum NAL value (for TSS and O&G), or are outside of the instantaneous maximum NAL range (for pH).

Non Detect

Sample result is less than Method Detection Limit; Analyte being tested cannot be detected by the equipment or method.

Non-Storm Water Discharges (NSWDs)

Discharges that do not originate from precipitation events. Including but not limited to, discharges of process water, air conditioner condensate, non-contact cooling water, vehicle wash water, sanitary wastes, concrete washout water, paint wash water, irrigation water, or pipe testing water.

Numeric Action Level (NAL)

Pollutant concentration levels used to evaluate if best management practices are effective and if additional measures are necessary to control pollutants. NALs are not effluent limits. The exceedance of an NAL is not a permit violation.

Operator

In the context of storm water associated with industrial activity, any party associated with an industrial facility that meets either of the following two criteria:

- a) The party has operational control over the industrial SWPPP and SWPPP specifications, including the ability to make modifications to those plans and specifications
- b) The party has day-to-day operational control of activities at the facility which are necessary to ensure compliance with a SWPPP for the facility or other permit conditions (e.g., authorized to direct workers at a site to carry out activities required by the SWPPP or comply with other permit conditions).

pH

Unit universally used to express the intensity of the acid or alkaline condition of a water sample. The pH of natural waters tends to range between 6.0 and 9.0, with neutral being 7.0.

Plastic Materials

Plastic Materials are virgin and recycled plastic resin pellets, powders, flakes, powdered additives, regrind, dust, and other similar types of preproduction plastics with the potential to discharge or migrate off-site.

Publicly Owned Treatment Works (POTW)

Any device or system used in the treatment of municipal sewage or liquid industrial waste which is owned by the state or a municipality. In the District, the storm water drainage system is not physically connected to the POTW/wastewater collection system.

Qualified Industrial Storm Water Practitioner (QISP)

Only required once a Discharger reaches Level 1 status, a QISP is the individual assigned to ensure compliance with this General Permit or to assist New Dischargers with determining coverage eligibility for discharges to an impaired water body. A QISP's responsibilities include implementing the SWPPP, performing the Annual Comprehensive Facility Compliance Evaluation (Annual Evaluation), assisting in the preparation of Annual Reports, performing ERAs, and training appropriate Pollution Prevention Team members. The individual must take the appropriate state approved or sponsored training to be qualified. Dischargers shall ensure that the designated QISP is geographically located in an area where they will be able to adequately perform the permit requirements at all of the facilities they represent.

Qualifying Storm Event (QSE)

A precipitation event that: a. Produces a discharge for at least one drainage area; and b. Is preceded by 48 hours with no discharge from any drainage area.

Regional Water Quality Control Board (Regional Board or RWQCB)

State agency responsible for administration and enforcement of the municipal and industrial NPDES storm water permits. In Solano County, the local Regional Board is the San Francisco Bay RWQCB.

Reportable Quantity

An amount of material (usually hazardous material) that, when spilled on the ground or into a drainage system, must be reported to environmental regulatory authorities. Refer to the Code of Federal Regulations, Section 40, Parts 110.6, 117.3, and 302.4 for more information about reportable quantities.

Responsible Person

The individual legally responsible for the implementation of the SWPPP and compliance with the storm water permit. Refer to Sections C.9 and C.10 of the General Permit for further definition of the responsible person.

Runoff Control BMPs

Measures used to divert run-on from offsite and runoff within the site.

Run-on

Discharges that originate offsite and flow onto the property of a separate facility or property or, discharges that originate onsite from areas not related to industrial activities and flow onto areas on the property with industrial activity.

Sanitary Sewer System

A network of pipelines carrying sewage to a wastewater treatment facility. Storm drains are separate pipeline systems and are not connected to sanitary sewers.

Scheduled Facility Operating Hours

The time periods when the facility is staffed to conduct any function related to industrial activity, but excluding time periods where only routine maintenance, emergency response, security, and/or janitorial services are performed.

Sediment

Finely divided solids usually derived from rocks, soil, or biological materials, which are carried and deposited by storm water. Solid particulate matter, both mineral and organic, that is in suspension, is being transported, or has been moved from its origin by air, water, gravity, or ice and has come to rest on the earth's surface either above or below sea level.

Significant Materials

Includes, but is not limited to: raw materials, fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); any chemical the facility is required to report pursuant to Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA); hazardous wastes pursuant to 40 Code of Federal Regulations, California Health and Safety Code, Title 22, California Code of Regulations; materials regulated under Department of Transportation HM-181; pesticides; and waste products such as ashes, slag, and sludge.

Sedimentation

Process of deposition of suspended matter carried by water, wastewater, or other liquids that flow by gravity. Control of sedimentation is accomplished by reducing the velocity of the liquid below the point at which it can transport the suspended material.

Sediment Control BMPs

Practices that trap soil particles after they have been eroded by rain, flowing water, or wind. Includes those practices that intercept and slow or detain the flow of storm water to allow sediment to settle and be trapped (i.e., silt fence, sediment basin, fiber rolls, etc.).

Sheet Flow

Flow of water that occurs overland in areas where there are no defined channels and where the water spreads out over a large area at a uniform depth.

Significant Quantities

The volume, concentration, or mass of a pollutant in storm water discharge that can cause or threaten to cause pollution, contamination, or nuisance; adversely impact human health or the environment; and cause or contribute to a violation of any applicable water quality standards for the receiving water.

Source

Any facility or building, property, road, or area that causes or contributes to pollutants in storm water.

Standard Industrial Classification Code (SIC Code)

Standardized four-digit numbers used by the government to identify each type of industrial activity.

Storm Water

Storm water runoff, snowmelt runoff, and storm water surface runoff and drainage.

Storm Water Discharge Associated With Industrial Activity

The discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant as identified in Attachment A of this General Permit. The term does not include discharges from facilities or activities excluded from the NPDES program. The term includes, but is not limited to, storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials; manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process wastewaters (as defined at 40 C.F.R. section 401); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. The term does not include discharges from facilities or activities excluded from the NPDES program under 40 C.F.R. section 122.

Material handling activities include the: storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product, or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. Industrial facilities (including industrial facilities that are federally, State, or municipally owned or operated that meet the description of the facilities listed in this paragraph) include those facilities designated under 40 C.F.R. section 122.26(a)(1)(v).

Storm Water Drainage System

Above- and below-ground structures including streets, gutters, underground pipes, and ponding basins used to convey storm water.

Storm Water Pollution Prevention Plan (SWPPP)

In compliance with the State General Permit, the SWPPP is a document that identifies sources and activities at a particular facility that may contribute pollutants to storm water, and commits the operator to specific control measures to prevent or treat such pollutants. The SWPPP must be implemented and kept on site.

Structural Controls (BMP)

Constructed systems that are designed to delay, capture, store, treat, or infiltrate storm water runoff. Any structural facility designed and constructed to mitigate the adverse impacts of storm water and urban runoff pollution.

Total Suspended Solids (TSS)

The measure of the suspended solids in a water sample including inorganic substances such as soil particles, organic substances such as algae, aquatic plant/animal waste, and particles related to industrial/sewage waste, etc. The TSS test measures the concentration of suspended solids in water by measuring the dry weight of a solid material contained in a known volume of a sub-sample of a collected water sample. Results are reported in mg/L.

Toxicity

The adverse response(s) of organisms to chemicals or physical agents ranging from mortality to physiological responses, such as impaired reproduction or growth anomalies.

Trade Secret

Information, including a formula, pattern, compilation, program, device, method, technique, or process, that: (1) derives independent economic value, actual or potential, from not being generally known to the public or to other persons who can obtain economic value from its disclosure or use; and (2) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

Turbidity

The cloudiness of water quantified by the degree to which light traveling through a water column is scattered by the suspended organic and inorganic particles it contains. The turbidity test is reported in Nephelometric Turbidity Units (NTU) or Jackson Turbidity Units (JTU).

Waters of the United States

Generally refers to surface waters, as defined for the purposes of the federal Clean Water Act.

Water Quality Objectives

Defined in the California Water Code as limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area.

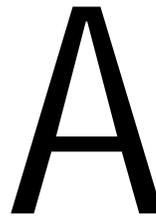
Water Quality Standards

Consists of beneficial uses, water quality objectives to protect those uses, an antidegradation policy, and policies for implementation. Water quality standards are established in Regional Water Quality Control Plans (Basin Plans) and statewide Water Quality Control Plans. U.S. EPA has also adopted water quality criteria (the same as objectives) for California in the National Toxics Rule and California Toxics Rule.

Watershed:

A sloping area of land within which all surface water drains to a single point.

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A

Appendix A Storm Water
Sampling and Monitoring Plan
(SSMP)

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STORM WATER SAMPLING AND MONITORING PLAN

Pursuant to the Base's Industrial Storm Water Discharge Permit, Travis AFB shall conduct Visual and Analytical sampling of their industrial areas. These monitoring efforts include:

- ✓ Monthly Visual Observations of Industrial Areas
- ✓ Visually Monitoring of Permitted Outfalls
- ✓ Analytical Sampling of Permitted Outfalls
- ✓ Visually Monitoring of All Secondary Containment Discharges
- ✓ Annual Comprehensive Facility Compliance Evaluation

This Storm Water Sampling and Monitoring Plan will address the first four items listed above.

Monthly Visual Observations of Industrial Areas

Travis AFB shall conduct a minimum of one visual inspection, of industrial areas in each of the sub-watersheds (1 through 8) each month, during normal business hours for the following items:

- Indication of potential unauthorized non-storm water discharges and their sources and authorized NSWD points to insure they are compliant with the General Permit.
- Outdoor industrial equipment and storage areas insuring BMPs are working correctly and operating effectively for the given industrial activities.

The findings of each month's visual observations shall be reported within the annual report. See the templates of the Monthly Visual Inspection Form at the end of this plan.

Visual Monitoring of Permitted Outfalls

Visual observations shall be conducted at the same time sampling occurs at each discharge location. The sample team shall ensure that visual observations of storm water discharged (e.g. Outfalls, Secondary Containment or Storage Ponds) are conducted at the time that the discharge is sampled. The sample team shall visually observe and record the presence or absence of floating and suspended materials, oil and grease, discolorations, turbidity, odors, trash/debris, and source(s) of any discharged pollutants. See the templates for the Storm Water Inspection Form and the Rainwater Release Inspection Form at the end of this SSMP.

The sample team shall maintain records of all visual observations. Records shall include the date, approximate time, locations observed, presence and probable source of any observed pollutants, name of person(s) that conducted the observations, and any response actions and/or additional SWPPP revisions necessary in response to the visual observations.

Analytical Sampling of Permitted Outfalls

Travis AFB shall collect and analyze storm water samples from two (2) Qualifying Storm Events (QSEs) within the first half of each reporting year (July 1 to December 31), and two (2) QSEs within the second half of each reporting year (January 1 to June 30). A QSE is a precipitation event that produces a discharge for at least one or more of the sub watersheds and is preceded by 48 hours with no discharge from any of the industrial areas, over and above any discharge that is not considered to have an authorized NSWD. Samples from each of the permitted outfall locations shall be collected within four (4) hours of the start of the discharge or the start of facility operations if the QSE occurs within the previous 12-hour period (e.g., for storms with discharges that begin during the night or outside of typical operation hours).

Travis AFB shall collect Total Suspended Solids (TSS), Oil and Grease (O&G) and pH from the primary permitted outfalls. Other sample parameters may be added at Travis AFB discretion, if industrial activities change or present justifications to increase sampling parameters in accordance with any updated SWPPP pollutant source assessment. For additional detailed guidance, refer to the U.S. EPA's "Industrial Storm Water Monitoring and Sampling Guide," dated March 2009, and the "NPDES Storm Water Sampling Guidance Document," dated July 1992, available at:

http://www.epa.gov/npdes/pubs/msgp_monitoring_guide.pdf

<http://www.epa.gov/npdes/pubs/owm0093.pdf>

Travis AFB shall ensure that all laboratory analyses are conducted according to test procedures under 40 Code of Federal Regulations part 136, including the observation of holding times, unless other test procedures have been specified in this General Permit or by the Regional Water Board.

Weather conditions shall be monitored using a combination of Doppler radar observations and coordination with Base weather personnel. Sampling personnel shall be prepared to sample the outfall locations once a significant storm is predicted that could result in a qualifying discharge event.

For Supplemental Sampling locations, all data forms and chain of custody forms shall be filled out separately from the primary permitted sampling points. All data and sampling forms shall be submitted directly to the Storm Water Manager for review, tracking and filing.

Storm Water Grab Sampling

All sampling equipment, including bottles, labels, and chain of custody (COC) forms, shall be organized and prepared in advance. The actual time of sample collection shall be added to the COC forms in the field. Sampling equipment will depend upon location.

Storm Water Pollution Prevention Plan

The pH screen shall be performed as soon as practicable, but no later than 15 minutes after the sample is collected. pH shall be analyze using pH test trips while under base conditions and follow methods in accordance with 40 Code of Federal Regulations 136 for testing storm water or use a calibrated portable instrument for pH under Level 1 and Level 2 conditions. When using a calibrated portable instrument for pH, the sampler must ensure that all field measurements are conducted in accordance with the accompanying manufacturer’s instructions.

All other samples will be collected using grab sampling techniques using a laboratory supplied sample jar and shipped in coolers packed with ice to a certified Laboratory for analysis. Upon completion of each sampling event, a copy of the COC forms shall be submitted to 60 CES/CEIE. Sample containers shall be sealed in a separate Ziploc container and wrapped in bubble wrap to ensure the samples can arrive at the lab safely without cross contamination from the ice or other sample containers.

Table A1-1. Storm Water Grab Sample Analyses		
<i>Frequency: Two QSEs within the first half of each reporting year (July 1 to December 31), and Two QSEs within the second half of each reporting year (January 1 to June 30).</i>		
Location	Sample Type	Analyses
A1 A2	Grab	<i>Total Suspended Solids, SM 2540-D pH, through use a calibrated portable instrument for pH or pH test strips based on Level requirements. Oil & Grease, EPA 1664A</i>
Outfall I Outfall VI Outfall B2 Outfall B3	Grab	<i>Total Suspended Solids, SM 2540-D pH, through use a calibrated portable instrument for pH or pH test strips based on Level requirements. Oil & Grease, EPA 1664A</i>
All POL Secondary Containment	Grab	<i>Visual inspection following Secondary Containment Form and pH sampling using test strips based on Level requirements as required if oil sheen observed.</i>
Supplemental Sampling Points		
<i>As needed for supplemental sampling purposes only. These samples are to be collected under a separate COC</i>		
Outfall IIA, Outfall IIB Outfall IIC Outfall III Outfall IV	Grab	<i>Total Suspended Solids, pH, through use a calibrated portable instrument for pH or pH test strips based on Level requirements, Oil & Grease, EPA 1664A. Additional parameters may be added to supplement site investigations as requested by the 60 CES/CEIE</i>

Equipment Decontamination

All equipment that may come in contact with samples will be thoroughly decontaminated prior to each use. Sample bottles shall be ordered from the lab that is pre sterilized. Decontamination

procedures for all non-disposable equipment, except as noted below, are as follows or as allowed by the current Industrial Storm Water Permit:

- Scrub with a solution of potable water and Alconox
- Triple rinse with potable water
- Rinse with distilled water

Optional Sampling: For equipment used to collect samples for metals (e.g. the sample bottle for the automatic sampler), decontamination procedures are as follows:

- Scrub with a solution of potable water and Alconox
- Rinse with (1+1) nitric acid
- Rinse with potable water
- Rinse with (1+1) hydrochloric acid
- Rinse with deionized water
- Rinse with distilled water

Sample Labeling

The sample label will attach directly to the sample container. Information that will be provided on the label includes the following:

- Project name
- Project location
- Sample ID (will reflect the sample location)
- Sample location
- Container (volume and type)
- Number of containers
- Preservation in container, if any
- Analyses requested
- Date sample collected
- Time sample collected (24-hour military time)
- Initials of sampler
- Laboratory

Chain of Custody Form

The COC form serves as an official record of sample collection information, analyses requested, and sample tracking. The COC number will reflect the laboratory that the samples will be shipped to, the date the samples were collected, and the project location. Information that will be provided on the COC includes the following:

- Project name

- Project location
- Sample date
- Sample time
- Sample type (composite or grab sample)
- Sample ID
- Number of containers for each sample
- Type of container for each sample
- Preservative, if any, for each sample
- Analyses requested
- Special requests, if any
- Sampler's name and relinquish date/time

Sample possession must be traceable from the time of collection until receipt of the samples at the analytical laboratory.

Visual Monitoring of All Secondary Containment Discharges

Storm water that has collected from a secondary containment area must be inspected prior to discharging the water to the storm water system and written documentation of the inspection maintained for five years. The rainwater release form located at the end of this SSMP may be used during each discharge of storm water from a secondary containment structure. If any visual indicator cannot be rectified through the SPCC procedures, the storm water must be sampled and analyzed for contaminants associated with that secondary containment and shown to be within the discharge limits prior to discharging to the storm water system or pumped out and disposed of appropriately based on guidance from CEIE. For POL secondary containments, pH sampling using test strips based on Level requirements is required if an oil sheen is observed to verify storm water is within discharge limits for pH prior to discharge.

Sampling Analysis Reporting

Travis AFB shall submit all sampling and analytical results for all qualifying storm events via SMARTS within 30 days of obtaining all results for each sampling event. Sampling results shall provide the method detection limit when an analytical result from samples taken is reported by the laboratory as a "non-detect" or less than the method detection limit. A value of zero is not an acceptable result and thus, shall not be reported.

Travis AFB shall provide the analytical result from samples taken that is reported by the laboratory as below the minimum level (often referred to as the reporting limit) but above the method detection limit. Reported analytical results will be averaged automatically by SMARTS. For any calculations required by this General Permit, SMARTS will assign a value of zero (0) for all results less than the minimum level as reported by the laboratory.

Travis AFB shall compare all primary sampling and analytical results from each distinct sample site to determine if an NAL exceedance has occurred. For the purposes of this comparison, the reporting year is July 1 through June 30.

The Numeric Action Level (NAL) shall be determined using the average concentration for each sampling parameter, using the results of all the sampling results for the entire facility for the reporting year (i.e., all "effluent" data) and compare this to the corresponding Annual NAL values in the Table below. The instantaneous maximum NALs are calculated from a Water Board dataset.

Parameter	Test Method	Units	Annual NAL	Instantaneous Maximum NAL
pH	See Section XI.C.2	pH units	N/A	Less than 6.0 or Greater than 9.0
Total Suspended Solids	SM 2540-D mg/L 100 400	mg/L	100	400
Total Oil & Grease (O&G)	EPA 1664A	mg/L	15	25

An annual NAL exceedance occurs when the average of all the analytical results for a parameter from samples taken within a reporting year exceeds the annual NAL value for the corresponding parameter listed in Table. An Instantaneous Maximum NAL exceedance occurs when two (2) or more analytical results from samples taken for any single parameter within a reporting year exceed the instantaneous maximum NAL value.

The following reports and deliverables shall be provided to 60 CES/CEIE from the sampling team:

- COC Forms (provided to 60 CES/CEIE immediately upon completion of each sampling event)
- Sample Certification Forms (provided to 60 CES/CEIE immediately upon completion of each sampling event)

Laboratory Analytical Reports (provided electronically to 60 CES/CEIE immediately upon availability with the final laboratory analytical report provided no later than the eighth calendar day of the month following the month the samples are collected or fifteen days after the sample was collected).

RAINWATER RELEASE INSPECTION LOG

(OPTIONAL FORM)

Rainwater Release Inspection Log

Copy and complete this form before discharging rainwater collected in secondary containment area.

Location of Containment Area: _____ Date _____

Name of person performing inspection: _____

Is there visual evidence that storm water has been contaminated? Yes _____ No _____

Visual Indicators

- Sheen Odor
- pH _____ Meter Calibrated to _____
- Discoloration
- Other, Explain _____

Oil/Fuel Type Stored in Containment Area

- MOGAS Diesel Jet-A
- JP-4 JP-8
- Heating Oil Used Oil
- Motor/Lubricating/Hydraulic Oil

Can contamination be removed using available absorbent and/or other spill supplies?

- Yes No – Call 911 using base phone or 707-424-4911 if using cell phone to report a release from this site.

If yes, list supplies used and how they were disposed of:

Estimated Volume to discharge

Inside containment area

Tank area

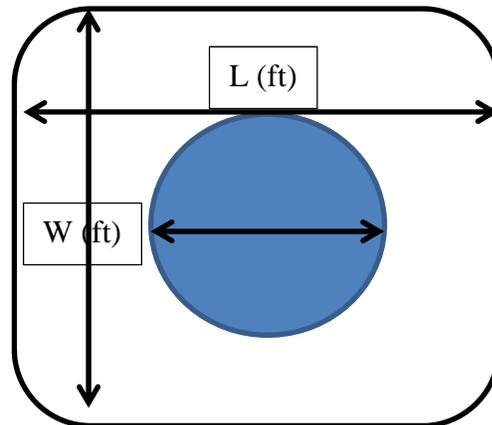
(Length*Width*Depth) – (Depth*3.14*1/2diameter*1/2diameter)

Width (ft) _____ Length(ft) _____ Depth of storm water(ft) _____ Diameter of tank(ft) _____

Estimated Ft³ feet of water discharged _____

Where was water discharged to? _____

What BMPs were used to prevent soil erosion?



STORM WATER INSPECTION FORM

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Storm Water Pollution Prevention Plan

60 CES/CEI

Storm Water Pollution Prevention Site Inspection Checklist

Inspector: _____ Date: _____ Type: Routine Follow-Up Other

Building No: _____ Organization: _____ POC: _____ Tele#: _____

The items below have been inspected. Major Findings represent violation of State Water Resources Control Board Water Quality Order CAS000001 (NPDES General Industrial Storm Water Permit) or Order 209-0009-DWQ amended by 2010-0014-DWQ & 2012-0006-DWQ 99-08-DWQ (NPDES General Construction Storm Water Permit) as indicated. Minor findings represent violations of the current Storm Water Pollution Prevention Plan (SWPPP) only. All findings shall be corrected as described. Findings closed on the spot (COS) are indicated as such.

Type of site being evaluated (Check One)

_____ Construction Site Equal to or Greater than 1 Acre (Complete Section A and B)

_____ Construction Sites Less than 1 acre or Maintenance Activity (Complete Section B)

_____ Industrial Site (Complete Sections C through J)

Section A Construction Sites of 1 Acre or More

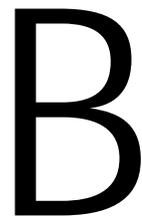
	Compliance Status			REQUIREMENT	VIOLATION / CORRECTIVE ACTIONS
	Compliant	Minor	Major		
1				Has a Completed Notice Of Intent, site map and appropriate fee been submitted to the State Water Resources Control Board? SWRCB Order 99-08-DWQ, Para 4	
2				Has the contractor developed and maintained a Storm Water Pollution Prevention Plan? (SWPPP) SWRCB Order 99-08-DWQ, Para 4	
3				Is there a copy of the NOI and Receipt of NOI in the SWPPP? SWRCB Order 99-08-DWQ, Section A.5.c (4)	
4				Does the contractor complete an Annual Storm Water Compliance Certification report by July 1 of each year? SWRCB 99-08-DWQ, Section B.4	
5				Is there a copy of the Annual Storm Water Compliance Certification Report in the SWPPP?	
6				Are inspections conducted before and after storm events, and every 24 hours during extended storm events? SWRCB Order 99- 08-DWQ, Section B.3	
7				Are inspection records maintained at the site?	

Section B All Construction Sites – Work on sites of 1 acre or more must comply with contractor SWPPP. Work on sites less than 1 acre must comply with 60 AMW SWPPP.			
1			Are there signs of erosion or other pollutants reaching storm drains, drainage swales or creeks?
2			Is the contractor properly implementing own SWPPP or 60 AMW SWPPP BMPs?
3	Which of the following BMPs are being implemented or NEED to be implemented? Explain.		
3a			Preservation of existing vegetation
3b			Slope grading
3c			Seeding
3d			Dust control
3e			Erosion control blankets and geotextiles
3f			Fiber rolls
3g			Stabilized construction entrance
3h			Entrance/exit tire wash
3i			Street cleaning
3j			Outlet protection
3k			Silt fence
3l			Sand bag barrier
3m			Storm drain inlet protection
3n			Sediment basin
3o			Soil and demolition waste management (Piles covered or frequently removed?)
3p			Hazardous waste management
3q			Spill prevention and control
3r			Drip pans used to collect fluids from leaking equipment and vehicles
3s			Oily vehicles and equipment covered to protect from rain
3t			Material delivery, handling and storage
3u			Handling/disposal of cement and concrete
3v			Pavement construction management
3w			Sanitary sewer management
3x			Landscape management
3y			Potable water sources related to operation, maintenance, or testing of potable water system

Storm Water Pollution Prevention Plan

Section C Drain Management - Industrial Sites				
1				<i>Exterior surfaces and storm drains free of chemical and oil stains</i>
2				<i>Oil water separators (if present) regularly and properly maintained/documented</i>
3				<i>Causes of any observed stains identified</i>
4				<i>Interior drains connected to sanitary sewer</i>
5				<i>Drains from process units protected and/or sealed to prevent discharge to sanitary sewer/storm drain</i>
6				<i>Drains in secondary containment secured in the closed position</i>
7				<i>Operators of secondary containment areas check for sheen, odor, or discoloration (pH if sheen for large POL containments) before opening the valve</i>
8				<i>Operators of secondary containment areas keep records of the time, date and operator who opened the drain</i>
Section D Equipment/Material Storage - Industrial Sites				
1				<i>Materials/wastes stored to prevent spills from entering sanitary sewer and storm drains, lids in place and secure, dumpsters covered, empty containers covered awaiting off-site disposal</i>
2				<i>Materials, products, and containers protected from rain</i>
3				<i>Are containers stacked according to manufacturer's instructions on pallets and above ground level to avoid corrosion due to moisture buildup</i>
4				<i>Adequate space provided for material transfer and easy access for inspection</i>
5				<i>Exterior equipment free of oils and other residues that may enter storm drains</i>
6				<i>Drip pans used to collect fluids from leaking equipment and vehicles</i>
Section E Authorized Non-storm Water Discharges - Industrial Sites				
1				Do any of the following authorized non-storm water discharges occur? SWRCB Order CAS000001Section D.1
1a				Fire hydrant flushing
1b				Drinking water fountains
1c				Atmospheric condensates including refrigeration, air conditioning and compressor condensate Irrigation
1d				Foundation or footing drainage

Section F Un-Authorized Non-storm Water Discharges - Industrial Sites				
1				Do any of the following UN-authorized non- storm water discharges occur? SWRCB Order CAS000001 Fact Sheet
1a				Washing/rinsing vehicles or equipment
1b				Washing buildings
1c				Washing sidewalks
1d				Spilling or leaking materials
1e				Run-off from improperly disposed material
1f				Discharge of any water with a sheen
Section G Waste Management - Industrial Sites				
1				Wash waters and mop waters drained to sanitary sewer
2				Steam cleaning/pressure washing drained to oil/water separator and/or sanitary sewer
3				Outside areas kept clean
4				Car wash water discharged to landscaping or sanitary sewer
5				Facility orderly and neat
Section H Spill Prevention and Clean Up – Industrial Sites				
1				<i>Spills cleaned up using dry cleaning methods</i>
2				<i>Spill clean-up kits readily available</i>
3				<i>Updated spill response plan on site</i>
Section I Employee Training - Industrial Sites				
1				<i>Employees trained in proper spill clean-up</i>
2				<i>Employees trained in proper waste disposal</i>
3				<i>Employees viewed 60 CES/CEI Storm Water Pollution Prevention power point presentation or equivalent annually</i>
4				<i>Employees viewed 60 CES/CEI Sanitary Sewer Accidental Spill Prevention power point presentation</i>
Section J Industrial Processes – Industrial Sites				
1				<i>Does shop review the FSSD Building Inventory and is it updated quarterly?</i>
2				<i>Is the FSSD Building Inventory correct?</i>
3				<i>Have Federal Categorical Metal Finishing Operations been added or subtracted without notification?</i>
4				<i>Is the shop recording all metal finishing process waste disposals?</i>
5				<i>Are OWS BMPs in place?</i>

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Appendix B Distribution List for
the SWPPP

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Storm Water Pollution Prevention Plan

The UECs and the Cross Functional Team shall be notified of the link to the electronic copy of the SWPPP

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Appendix C List of Hazardous
Materials and Hazardous Waste

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Storm Water Pollution Prevention Plan

This appendix presents a general list of hazardous materials used at Travis AFB. The official list, including locations and annual quantities generated, refer to the latest 60 AMW Hazardous Waste Management Plan. For a complete detailed list, including locations, of hazardous materials and storage locations, refer to the current Air Force Environmental Management Information System (AF-EMIS) database. Supplemental sources of storage information are also available including the MedLog system, which tracks medical use supply purchases. Locations of hazardous material and waste storage in aboveground storage tanks (ASTs) and underground storage tanks (USTs) are identified in Appendices F and G, respectively.

HAZARDOUS MATERIALS AND HAZARDOUS WASTES			
Absorbent Contaminated With Sulfuric Acid	Lubricating Oil (Unused expired shelf life)	Universal waste-mercury batteries	Waste Ethyl Acetate/Formalin Solution
Absorbents with Petroleum Hydrocarbons, Diesel, Jet Fuel, Paint	Mixed Acids	Universal waste- alkaline batteries	Waste Fixer With Silver
Absorbents Contaminated With Potassium Hydroxide	Mixed So-Gel solid (AC- 130 mixed)	Universal waste-cuprous iodide/magnesium batteries (water activated)	Waste Flammable Paints
Adhesion Promoter	N-Heptane (Pure Grade)	Universal waste-mercury containing articles	Waste Formalin
Adhesives and Resins, Flammable	Old Floor Cleaning Solution	Universal waste- nickel metal hydride batteries	Waste Flammable Paints
Arnco Flat proofing Material Component "A"	Outdated/Off spec Latex Paint	Universal waste-non flammable aerosols	Waste Grease
Batteries Non-spillable (gel type)	Oxygen Generator, Chemical (expired shelf life)	Used Engine Oil	Waste JP8 w/<15% Water
Batteries (non-rechargeable)	Pads contaminated with isopropanol	Used Formula 724 w/Hydraulic fluid, oil, and grease	Waste Lamps, Broken (Fluorescent)
Battery Shop Rinse Water with Oil	Pads saturated with fuel (JP8, Diesel, MOGAS)	Used Oil	Waste Magnetic Particle Bath
Bead Blast Paint Dust	Paint Sludge	Used Ozzy Juice (Degreasing Solution c/w Oil)	Waste Mixed Fuel (Diesel, Gasoline)
Bead blast, paint dust	PCB Light Ballasts	Used PD-680 Type II w/Hydraulic fluid	Waste Non-Flammable Adhesives w/Metals Below Regulatory Limits
Bulk Used Oil From AGE	Penetrant ZL-37 (Zyglo)	Vapor lamps	Waste Solvent (PD-680)
Class 9 Solid	Lab Pack, Basic	Solid Paint Debris	Waste Charcoal c/w

HAZARDOUS MATERIALS AND HAZARDOUS WASTES			
	Inorganic (solids and liquids), Dangerous When Wet Liquids		trace solvents
Contaminated Debris (empty container last contained Ethyl Acetate & Acetone)	Flammable, Organic Peroxide, Oxidizers, Spontaneous Combustibles, and Toxics	Universal waste -Nickel Cadmium Batteries (dry)	Waste Class 9 Solid
Coolant Oil (Water-soluble)	Precision Clean	Universal waste fluorescent tubes	Waste Diesel fuel
Debris c/w POL's (Solid)	Rags c/w Acetone	Wash Rack Gravel c/w POL	Waste Epoxy Additive, Flammable
Debris saturated with diesel, gasoline, JP8 (liquid)	Rags c/w Cadmium sulfate/Ethylenediamine	Waste Adhesives	Waste Paint contaminated debris containing heavy metals
Expired shelf life joint compound	Rags c/w Heavy Metals (Class 9 Solid)	Waste Antifreeze	Waste Parts Washer Sludge
Firing Range Vacuum Waste/Soil (Class 9 Solid)	Rags c/w mixed-acid	Waste Aqueous Cleaner	Waste Rapid Color Developer Part A
Flammable paints	Ray tube	Waste Battery Fluid-contains Sulfuric Acid	Waste Resin Solution (Liquid)
Floor Drain Sludge	Royco 782 Hydraulic Fluid	Waste Bead Blast Paint Dust	Waste Sealants, Flammable
Gun Cleaner, Break-free Clip (Liquid)	Silver paste extender	Waste Bead Blast Paint Dust	Waste Fixer With Silver
Lab Pack, Acid Inorganic (solids and liquids)	Silver Tailing Buckets	Waste Brake Fluid	X-Ray Fixer Solution
Lab Pack, Basic Inorganic (solids and liquids)	Soil c/w Mineral Oil	Waste Cadmium solution	Waste Ethyl Acetate/Formalin Solution

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Appendix D Potential Pollution
Sources and Corresponding BMPs
for Aboveground Storage Tanks

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Storm Water Pollution Prevention Plan

Spills from fueling or from the transfer of fuels to and from aboveground storage tanks (ASTs) can cause significant pollution. Fuels carry contaminants that are not easily removed by storm water treatment devices. Consequently, control at the source is particularly important for fuel spills. Leaks or spills into the containment area need to be promptly addressed to avoid storm water contamination. Containment area must be observed for sheen and any other irregularities prior to any discharge of accumulated storm water. See Appendix A for a Rainwater Release Inspection log that may be used to track these inspections and discharges. AST locations, tank size, and typical materials store are presented in Table D-1. The Best Management Practices (BMPs) for ASTs are described in Table D-2.

Table D-1. Above Ground Storage Tanks

*Power Production Shop Organizational Fuel Tank Inventory Above Ground & Underground Storage Tank Inventory 3/9/2015

TANK #1						TANK #2					
Tank Name	Type of Tank	Type of Containment	Fuel Type	Size (Gal)	Mfg Year	Tank Name	Type of Tank	Type of Containment	Fuel Type	Size (Gal)	Mfg Year
1-1-AST	AST-UNIT	D/W	DS-2	79	2004						
3-1-AST	AST-UNIT	D/W	DS-2	308	2008						
4-1-AST	AST-UNIT	D/W	DS-2	720	2011						
6-1-AST	AST	D/W	DS-2	5000	2005	6-2-AST	AST-Daytank	Daytank-Dike	DS-2	200	2005
10-1-AST	AST	D/W	DS-2	600	2001						
14-1-AST	AST-UNIT	D/W	DS-2	640	1995						
24-1-AST	AST	D/W	DS-2	186	1999	24-2-AST	AST-Daytank	Daytank-Dike	DS-2	25	1999
31-1-AST	AST	D/W	DS-2	490	2014						
38-1-AST	AST-UNIT	D/W	DS-2	700	2011						
39-1-AST	AST-UNIT	D/W	DS-2	366	2004						
54-1-AST	AST	D/W	DS-2	250	2004						
141-1-AST	AST	S/W	DS-2	50	2005						
175-1-AST	AST-UNIT	D/W	DS-2	145	2005						
237-1-AST	AST-UNIT	D/W	DS-2	79	2005						
243-1-AST	AST-UNIT	D/W	DS-2	850	2010						
380-1-AST	AST	D/W	DS-2	500	1993	380-2-AST	AST-Daytank	Daytank-Dike	DS-2	25	1993
381-1-AST	AST-UNIT	D/W	DS-2	996	2011						
549-1-AST	AST-UNIT	D/W	DS-2	194	2009						
552-1-AST	AST-UNIT	D/W	DS-2	150	2010						
570-1-AST	AST-UNIT	D/W	DS-2	168	2014						
700-1-AST	AST-UNIT	D/W	DS-2	1000	2012						
801-1-AST	AST	D/W + DIKE	DS-2	700	1997	801-1A-AST	AST-Daytank	Daytank-Dike	DS-2	50	1997
801-2-AST	AST	D/W + DIKE	DS-2	700	1997	801-2A-AST	AST-Daytank	Daytank-Dike	DS-2	50	1997
801-3-AST	AST	D/W + DIKE	DS-2	700	1997	801-3A-AST	AST-Daytank	Daytank-Dike	DS-2	50	1997
801-4-AST	AST	D/W + DIKE	DS-2	700	1997	801-4A-AST	AST-Daytank	Daytank-Dike	DS-2	50	1997

Table D-1. Above Ground Storage Tanks

*Power Production Shop Organizational Fuel Tank Inventory Above Ground & Underground Storage Tank Inventory 3/9/2015

TANK #1						TANK #2					
Tank Name	Type of Tank	Type of Containment	Fuel Type	Size (Gal)	Mfg Year	Tank Name	Type of Tank	Type of Containment	Fuel Type	Size (Gal)	Mfg Year
811-1-AST	AST-UNIT	D/W	DS-2	272	1998						
827-1-AST	AST	D/W	DS-2	300	1988	827-2-AST	AST-Daytank	Daytank-Dike	DS-2	25	1988
834-1-AST	AST	D/W	DS-2	300	1999						
834-2-AST	AST	D/W	DS-2	300	1999						
834-3-AST	AST	D/W	DS-2	300	1999						
861-1-AST	AST-UNIT	D/W	DS-2	84	2007						
902-1-AST	AST-UNIT	D/W	DS-2	900	2009						
916-1-AST	AST-UNIT	D/W	DS-2	600	2003						
918-1-AST	AST-UNIT	D/W	DS-2	100	2000						
924-1-AST	AST-UNIT	D/W	DS-2	84	2009						
934-1-AST	AST-UNIT	D/W	DS-2	135	2013						
977-1-AST	AST-UNIT	D/W	DS-2	850	2014						
993-1-AST	AST	D/W	DS-2	300	1992	993-2-AST	AST-Daytank	Daytank-Dike	DS-2	25	1992
1040-1-AST	AST-UNIT	D/W	DS-2	300	2007						
1041-1-AST	AST-UNIT	D/W	DS-2	300	1998						
1114-1-AST	AST-UNIT	D/W	DS-2	100	2009						
1124-1-AST	AST-UNIT	D/W	DS-2	260	2010						
1129-1-AST	AST-UNIT	D/W	DS-2	260	2010						
1135-1-AST	AST	D/W	DS-2	186	1999	1135-2-AST	AST-Daytank	Daytank-Dike	DS-2	25	1999
1137-1-AST	AST	D/W	DS-2	1000	2008	1137-2-AST	AST-Daytank	Daytank-Dike	DS-2	25	2008
1150-1-AST	AST-UNIT	D/W	DS-2	194	2004						
1171-1-AST	AST-UNIT	D/W	DS-2	366	2003						
1175-1-AST	AST-UNIT	D/W	DS-2	1074	2013						
1175-2-AST	AST-UNIT	S/W+shelter	DS-2	580	1996	1175-3-AST	AST-UNIT	S/W+shelter	DS-2	580	1996
1177-1-AST	AST-UNIT	D/W	DS-2	308	2012						

Table D-1. Above Ground Storage Tanks

*Power Production Shop Organizational Fuel Tank Inventory Above Ground & Underground Storage Tank Inventory 3/9/2015

TANK #1						TANK #2					
Tank Name	Type of Tank	Type of Containment	Fuel Type	Size (Gal)	Mfg Year	Tank Name	Type of Tank	Type of Containment	Fuel Type	Size (Gal)	Mfg Year
1207-1-AST	AST	D/W	DS-2	186	1999	1207-2-AST	AST-Daytank	Daytank-Dike	DS-2	25	1999
1219-1-AST	AST-UNIT	D/W	DS-2	84	2007						
1290-1-AST	AST	D/W	DS-2	186	1999	1290-2-AST	AST-Daytank	Daytank-Dike	DS-2	25	1999
1301-1-AST	AST-UNIT	D/W	DS-2	685	2011						
1514-1-AST	AST-UNIT	D/W	DS-2	194	2009						
1733-1-AST	AST	D/W	DS-2	325	1996						
1797-1-AST	AST-UNIT	D/W	DS-2	230	1998						
2037-1-AST	AST	D/W	DS-2	500	1998						
2038-1-AST	AST	D/W	DS-2	500	1998						
2040-1-AST	AST-UNIT	D/W	DS-2	450	2004						
2041-1-AST	AST-UNIT	D/W	DS-2	450	2004						

ACTIVE ABOVE STORAGE TANKS			
Tank #	Volume (Gal)	Contents	Regulated Status
1773	2,310,000	Jet A	
1778	2,310,000	Jet A	
1758	4,200,000	Jet A	
1757	4,200,000	Jet A	
1755	20,000	Diesel	
1772	420,000	Jet A	
1732	420,000	Jet A	
1770	420,000	Jet A	
1777	420,000	Jet A	

ACTIVE ABOVE STORAGE TANKS			
Tank #	Volume (Gal)	Contents	Regulated Status
1795	210,000	Jet A	
1796	210,000	Jet A	
1768	420,000	Jet A	Under Const.
1769	420,000	Jet A	Under Const
T779A	25,000	diesel	
T779B	25,000	diesel	
T779C	25,000	diesel	
T779-5 to -11	450	diesel	
T565A	10,000	Jet A	
T565B	10,000	Jet A	
T565C	6,000	Jet A	
T565E	1,500	engine Oil	
T565D	1,000	engine Oil	
T811G	3,000	PD680 Solvent	
T811F	2,000	detergent	
T1365A	2,500	waste Jet A	
T1365B	2,500	waste Jet A	
T1365C	2,500	waste oil	
T1365D	2,500	waste oil	
T1365E	2,500	waste oil	
T1365F	2,500	waste oil	
T872A	2,000	gasoline	
T872B	2,000	diesel	
T2010A	1,000	unleaded gas	
T2010B	550	diesel	
T2010C	150	lubricant	
T2010C	150	motor oil	
T170D	415	engine oil	

ACTIVE ABOVE STORAGE TANKS			
Tank #	Volume (Gal)	Contents	Regulated Status
T170E	240	engine Oil	
T170G	500	waste oil	
T170H	150	anti-freeze	
T170J	150	used anti-freeze	
p-1	275	Motor Oil	
1205	300	Diesel	
T977-1	150	Hyd Fluid	
T977-2	90	Hyd Fluid water based	
T977-3	90	Hyd Fluid water based	
T977-4	90	Hyd Fluid water based	
T977-5	90	Hyd Fluid water based	
T977-6	90	Hyd Fluid water based	
T680-1	100	diesel	
T680-2	1000	diesel	
T8499A	230	diesel	

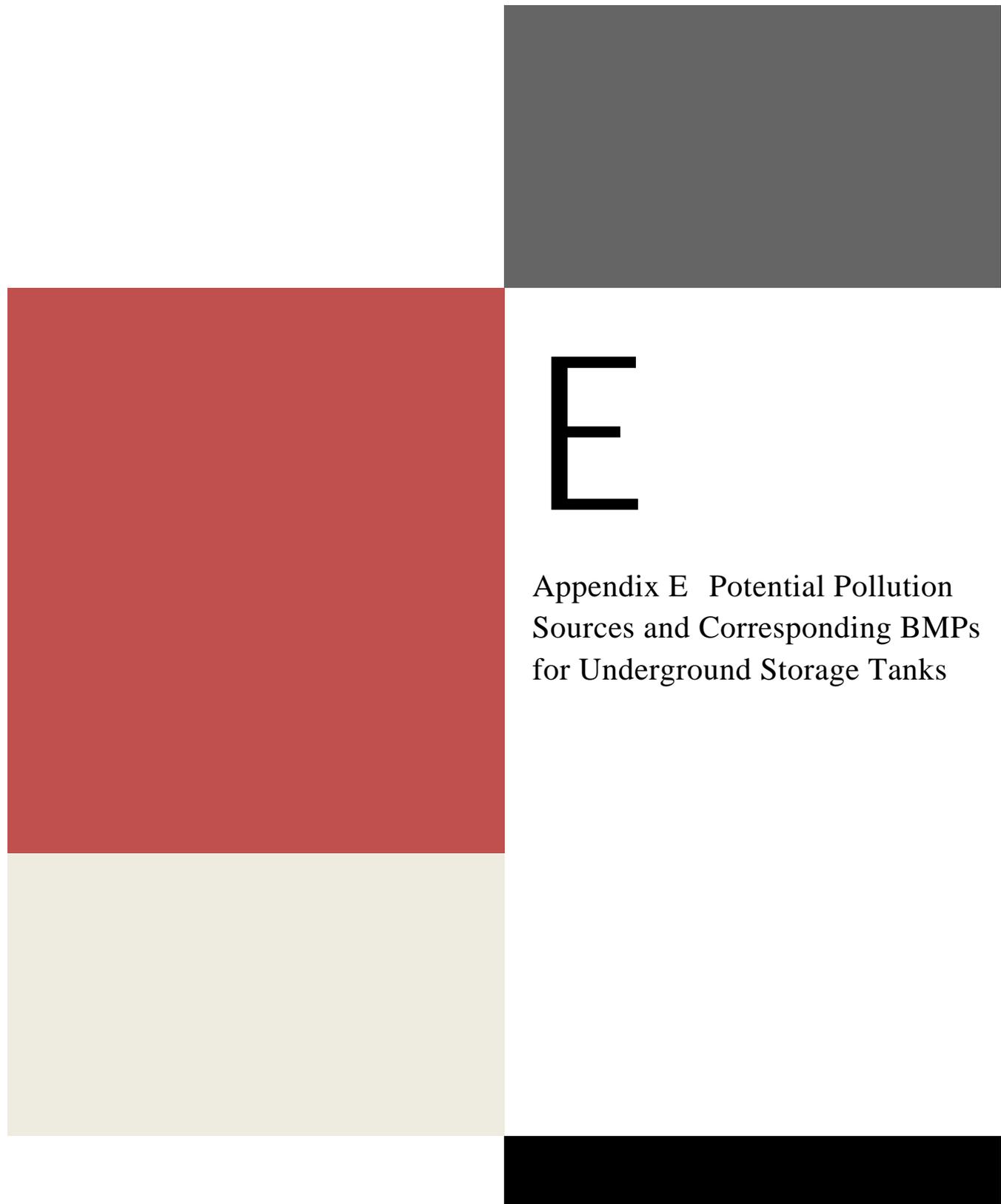
OOS AND MISC ABOVE STORAGE TANKS			
Tank #	Volume (Gal)	Contents	Regulated Status
T977?	5,000	De-icing fluid	
T755A	300	Heating Oil	OOS
P-18	3,000	Waste Water	OOS
1001	2,000	Waste Water	OOS
OF-2	2,000	Waste Water	OOS
OF-4	2,000	Waste water	OOS
T892A	30,000	propane	OOS
T892B	30,000	propane	OOS
T1322A	5,000	Hyd Pit Water	OOS
T1325A	5,000	Tank Bottom Water	OOS
T771A	6,000	avgas	OOS
T771B	6,000	avgas	OOS
T551A	250	calibrating fluid	OSS
	250	lube oil	OSS
T811B	5,000	diesel	OSS
T1750	5,000	unleaded gas	Formerly T1798B, became OOS in May 11
T1747	5,000	diesel	Formerly T1798A

Facility	Capacity (Gallons)	Material Stored
Burger King	abt 250	Cooking Oil
Bowling Alley	abt 100	"
BX Main Street	abt 250	"
BX Main Street	abt 250	"
BX Main Street	abt 250	"
Sierra Dining	abt 250	"
Sierra Dining	abt 250	"
Golf Course	abt 250	"
Shoppette Popeye	abt 250	"
Commissary	abt 250	"
Delta Breeze Club	abt 250	"

POLLUTANT SOURCE
<ul style="list-style-type: none"> • Spills and leaks during delivery • Spills caused by topping off fuel tank • Hosing or washing down area • Leaking tanks • Rainfall runoff/run-on

Table D-2. BMPs for Aboveground Storage Tanks

Targeted Constituents: <i>Fuel, Gasoline (the Content of the Tank), Oil and Grease</i>	
BMP	BMP Description
Non-Structural BMPs	
Good Housekeeping	<ul style="list-style-type: none"> • Operation and Maintenance <ul style="list-style-type: none"> ○ Keep area surrounding ASTs neat and clean ○ Collect and dispose of loose garbage and waste material regularly • Follow Material Inventory Procedures <ul style="list-style-type: none"> ○ Identify all hazardous material and material usage amounts ○ Ensure MSDSs are readily available ○ Label all containers to show the name and type of substance, stock number, expiration date, etc.
Preventive Maintenance	<ul style="list-style-type: none"> • Operate and maintain equipment as required by the manufacturer • Regularly inspect/test equipment that could result in leaks/spills • Program a schedule for maintenance/repair or replacement of defective equipment • Keep accurate, up-to-date record of materials delivered and stored on site
Exposure Minimization Practices	<ul style="list-style-type: none"> • Maintain current ICP plan and comply with ICP requirements • Minimize exposure to storm water during transfer or loading/unloading
Employee Training	<ul style="list-style-type: none"> • Train employees on the content and goals of the SWPPP • Train employees in the areas of spill prevention and responses, good housekeeping, material management practices, and preventive maintenance practices
Spill Response	<ul style="list-style-type: none"> • Store spill response kits, including dry cleanup materials • Use dry cleanup methods (e.g., absorbents)
Structural BMPs	
Overfill Protection	<ul style="list-style-type: none"> • All ASTs shall be equipped with overfill, leak and spill protection meeting 40 CFR Part 112 requirements.
Containment	<ul style="list-style-type: none"> • Containment facilities shall provide for a spill containment volume equal to 110% of the largest container in the facility. • Containment facilities shall be impervious to the materials stored there. • Areas where loading and unloading occurs should be paved and designed to prevent run-on.



E

Appendix E Potential Pollution Sources and Corresponding BMPs for Underground Storage Tanks

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Spills from fueling or from the transfer of fuels to and from underground storage tanks (USTs) can cause significant pollution. Consequently, control at the source is particularly important for fuel spills. Containment area must be observed for sheen and any other irregularities prior to any discharge of accumulated storm water. See Appendix A for a Rainwater Release Inspection log that may be used to track these inspections and discharges. UST locations, tank size, and typical materials store are presented in Table E-1. The Best Management Practices (BMPs) for USTs are described in Table E-2.

Table E-1a. Regulated Underground Storage Tanks

Tank #	Install Date	Type	Volume (Gal)	Function	Contents	Regulated Status
UT133-4	15-Dec-94	FRP	20,000	Motorpool Refueling Station	Gasoline	Operating Permit
UT133-5	15-Dec-94	FRP	20,000	Motorpool Refueling Station	Diesel	Operating Permit
UT133-6	15-Dec-94	FRP	20,000	Motorpool Refueling Station	BioDiesel	Operating Permit
UT170-8	15-Nov-94	ST	20,000	AAFES Gas Station	Gasoline	Operating Permit
UT170-9	15-Nov-94	ST	20,000	AAFES Gas Station	Gasoline	Operating Permit
UT170-10	15-Nov-94	ST	20,000	AAFES Gas Station	Diesel	Operating Permit
UT171-5	2-Feb-05	FRP	20,000	AAFES Gas Station	Gasoline	Operating Permit
UT171-6	2-Feb-05	FRP	20,000	AAFES Gas Station	Gasoline	Operating Permit
UT171-7	2-Feb-05	FRP	20,000	AAFES Gas Station	Gasoline	Operating Permit
UT1733-2	3-Nov-95	ST	4,000	Product Recovery	JP-8	Operating Permit
UT1041-1	29-May-98	ST	4,000	Product Recovery	JP-8	Operating Permit
UT1797-2	1-Mar-95	ST+FRP	2,000	Product Recovery	JP-8	Operating Permit
UT1779-5	30-Sep-06	ST	4,000	Product Recovery	JP-8	Operating Permit

Table E-1b. Emergency Spill Underground Storage Tanks

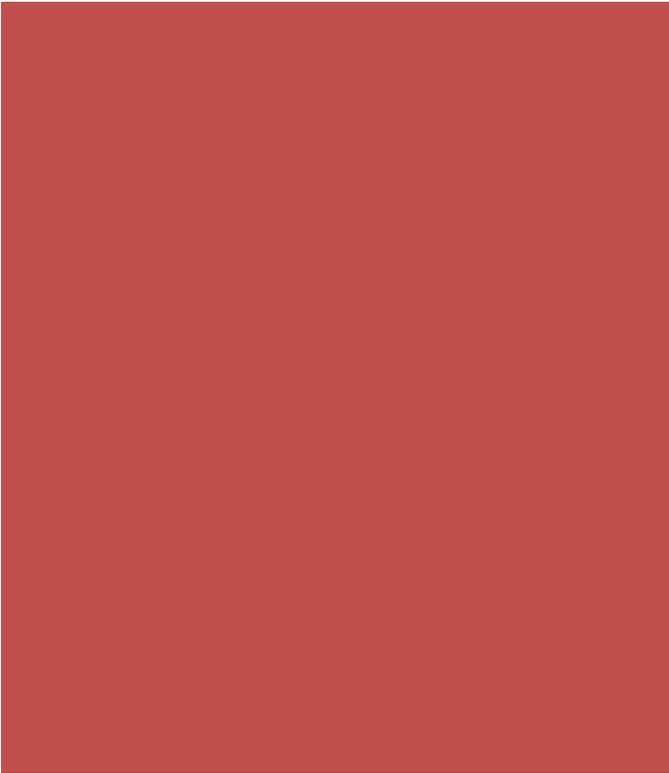
Tank #	Install Date	Type	Volume (Gal)	Function	Contents	Regulated Status
UT14-1	3-Aug-95	FRP	600	Emergency Overflow Tank	Waste Oil	Emergency Spill
UT154-1	1-Mar-85	ST	500	Emergency Overflow Tank	Hyd Fluid	Emergency Spill
UT155-1	1-Jan-86	FRP	500	Emergency Overflow Tank	Hyd Fluid	Emergency Spill
UT179-1	30-Mar-95	FRP	550	Emergency Overflow Tank	Hyd Fluid	Emergency Spill
UT801-2	28-Oct-96	FRP	1,000	Hangers Fire Suppression Mech. Room Drains	Waste Oil	Emergency Spill
UT886A	1-Jan-56	ST	6,000	Kinder Morgan Meter or Transfer Station	JP-8	Emergency Spill
Ut1733-9	30-Apr-96	ST	500	Emergency JP-8 Spill Tank	Waste Oil	Emergency Spill

POLLUTANT SOURCE
<ul style="list-style-type: none"> • Spills and leaks during delivery • Spills caused by topping off fuel tank • Hosing or washing down area • Leaking tanks • Rainfall runoff/run-on

Table E-2: BMPs for Underground Storage Tanks

Targeted Constituents: <i>Fuel, Gasoline (the Content of the Tank), Oil and Grease</i>	
BMP	BMP Description
Non-Structural BMPs	
Good Housekeeping	<ul style="list-style-type: none"> • Operation and Maintenance • Keep the area surrounding USTs neat and clean • Collect and dispose of loose garbage and waste material regularly • Follow Material Inventory Procedures • Identify all hazardous material and material usage • Ensure MSDSs are readily available • Label all containers to show the name and type of substance, stock number, expiration date, etc.
Preventive Maintenance	<ul style="list-style-type: none"> • Operate and maintain equipment as required by the manufacturer • Regularly inspect/test equipment that could result in leaks/spills • Program a schedule for maintenance/repair or replacement of defective equipment
Exposure Minimization Practices	<ul style="list-style-type: none"> • Maintain current ICP plan and comply with ICP requirements • Minimize exposure to storm water during transfer or loading/unloading
Employee Training	<ul style="list-style-type: none"> • Train employees on the content and goals of the SWPPP • Train employees in the areas of spill prevention and responses, good housekeeping, material management practices, and preventive maintenance practices
Spill Response	<ul style="list-style-type: none"> • Store spill response kits, including dry cleanup materials • Use dry cleanup methods (e.g., absorbents)
Structural BMPs	
Overfill Protection	<ul style="list-style-type: none"> • All USTs shall be equipped with overfill protection in accordance with 23 CCR Chapter 16

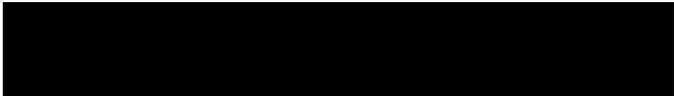
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F

Appendix F Significant Spills
Greater than 20 Gallons and/or
Come in Contact with Storm Water
from 2010–2014

**JP8 spills of less than 5 gallons that did
not reach a waterway were omitted
from this list**



**For additional information, please refer to
ANNEX E TO 60 AMW Integrated Contingency Plan
or Oil and Hazardous Substance Spill Prevention and
Response (ICP) Hazard Evaluation.**

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Spill History

This information is not included for reasons of National Security as it provides sensitive information that is considered FOR OFFICIAL USE ONLY (FOUO).

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Appendix G Standard Operating
Procedure

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VAULT DISCHARGE PROCEDURES

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UNDERGROUND VAULT WATER PROCEDURES FOR TRAVIS AIR FORCE BASE

The attached flow charts provide instructions to government personnel and any contractor not possessing a California NPDES permit for discharges from utility vaults and underground structures to surface waters to properly de-water utility vaults and underground structures prior to performing any repair, maintenance and/or installation of equipment.

Emergency Access:

An emergency situation is one in which maintenance personnel need to pump out vault water but are unable to provide a seventy two (72) hour notice to the Civil Engineering Installation Management (CEIE), or to the Contracting Officer's Representative (COR) for contractor work. Prior to entry by maintenance personnel, the vault water will be checked for: an oily sheen, cloudy/turbid conditions, any strange color, and/or presence of a sewage-like smell. If none of these conditions are present, then the water content of the vault may be discharged on to nearby vegetated ground only in location without runoff to the storm sewer system or to waters of the United States (i.e., Union Creek) and will not cause soil erosion. If any of the previously stated conditions are present, or no vegetated ground where discharge will meet the requirements stated previously is nearby, then the water should be disposed of as nonhazardous waste water. CEIE will characterize the vault water prior to disposal.

If the amount of vault water to be removed exceeds 5,000 gallons (approximate volume of one pumper truck), arrange for a holding tank for the expected volume of water. The vault water should be analyzed per 40 Code of Federal Regulations Part 136 and the results provided to CEIE to coordinate for proper disposal.

Prior to pumping, notify Civil Engineer Squadron /Operations (60 CES/Operations) and CEIE of the pending pumping operations. Track the estimated gallons discharged and file a filled out Report of Discharge form with CEIE, as applicable.

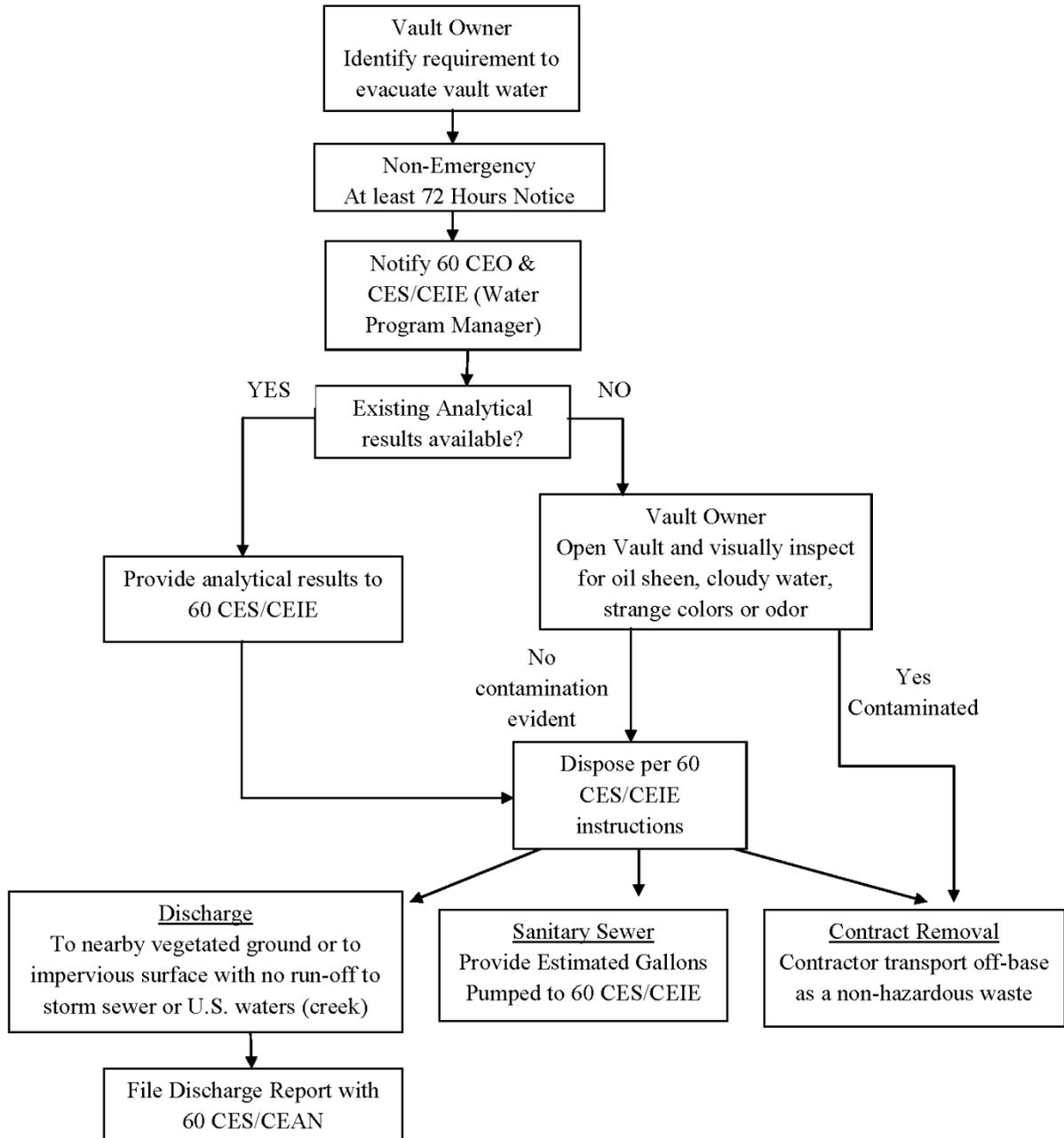
Non-Emergency Access:

Maintenance personnel will attempt to provide at least 72 hours notice before the vault water must be removed to allow testing and proper disposal of the vault water. CEIE will coordinate for proper disposal.

TAFB 5 APR 2012

NON-EMERGENCY VAULT DEWATERING DECISION TREE

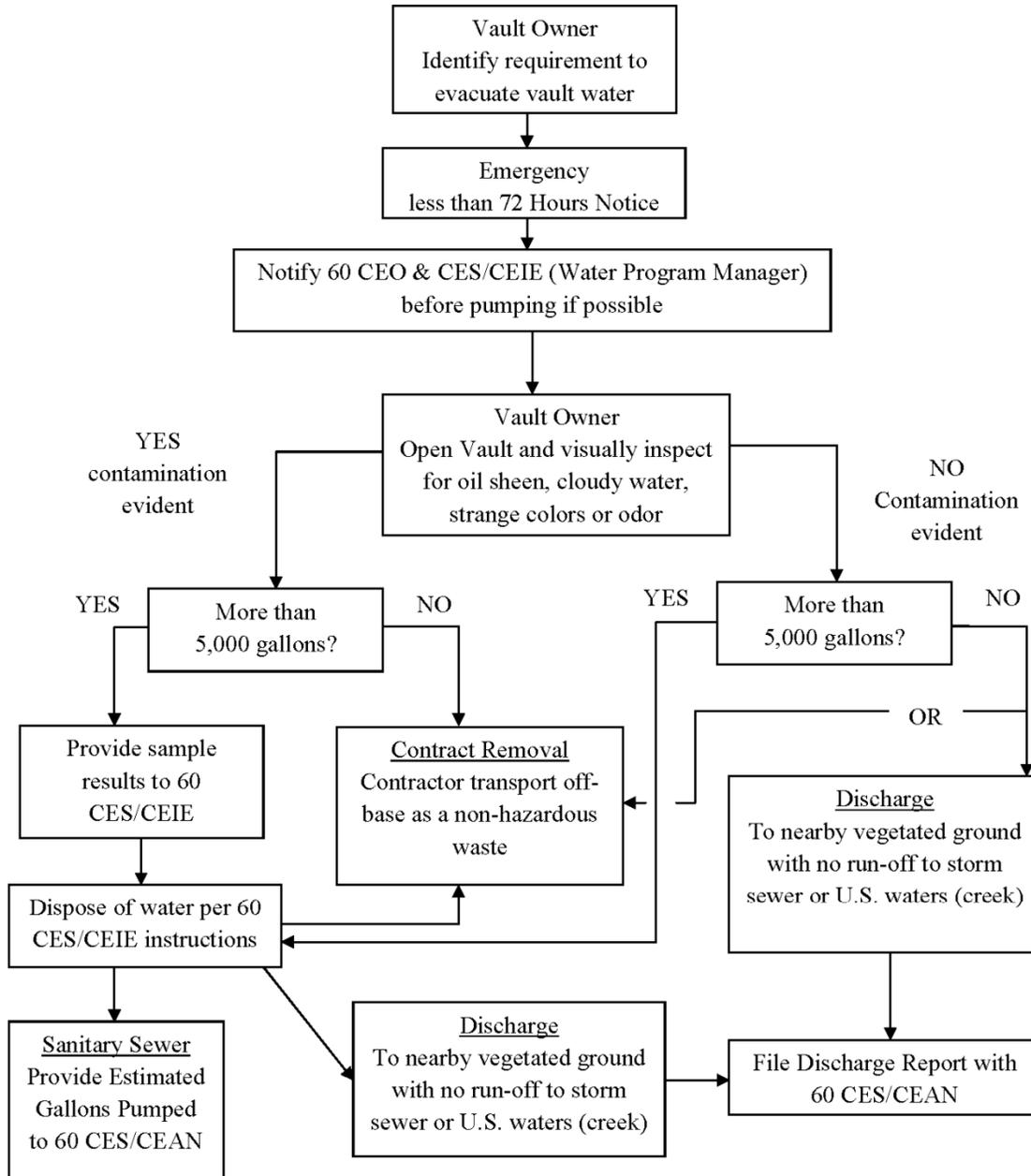
AT LEAST 72 HOURS NOTICE



NO DISPOSAL OF VAULT WATER TO STORM SEWER SYSTEM OR TO UNION CREEK.
PRIOR APPROVAL BY 60 CES/CEIE NEEDED FOR DISPOSAL TO SANITARY SEWER.

EMERGENCY VAULT DEWATERING DECISION TREE

LESS THAN 72 HOURS NOTICE



NO DISPOSAL OF VAULT WATER TO STORM SEWER SYSTEM OR TO UNION CREEK.
PRIOR APPROVAL BY 60 CES/CEIE NEEDED FOR DISPOSAL TO SANITARY SEWER.

VAULT WATER DISCHARGE TO GRASSY SURFACE

DATE /TIME OF DISCHARGE	VAULT NUMBER	DESCRIBE VAULT WATER CHARACTERISTICS <small>Indicate whether vault water is clear, cloudy/turgid, any strange color, has an oil sheen or floating product, and/or presence of a sewage-like smell</small>	ESTIMATED AMOUNT OF VAULT WATER DISCHARGED (IN GALLONS)	PROVIDE ESTIMATED AMOUNT OF RUNOFF IN GALLONS <small>Provide this information in the event that inadvertent runoff into the storm</small>

Printed Name: _____ Signature: _____

Company: _____ Phone: _____

DEICING PROCEDURES

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Travis AFB (Base) performs deicing operations on its pavements during frost events. The application of deicing chemicals generates contaminated runoff that can enter the storm sewer system and severely impair surface water quality. Due to their organic nature deicing compounds exert a high biological oxygen demand on receiving streams, which depletes oxygen levels necessary to sustain aquatic life. In addition these deicing compounds are also toxic to aquatic organisms. Other environmental impacts include glycol odors and glycol-contaminated surface water and groundwater systems.

The use of deicing agents is dictated by the aircrew, not the weather. The pilot may request deicing anytime s/he believes the safety of the aircraft crew will be in jeopardy. Due to the weather patterns of the area, deicing operations occur during dry weather conditions. The 2015 Multi-Sector General Permit does not allow the discharge of deicing agents to the storm water system during non-precipitation events. Therefore, using this as a guide, Base personnel must ensure that the storm drains on the flight line are blocked off during deicing operations.

The table below describes the BMPs and pollution prevention measures used for deicing and anti-icing operations.

Deicing/Anti-icing Procedures Training

All installation and contractor personnel involved with the application of aircraft deicing/anti-icing agents must attend training on the efficient operation of deicing-related equipment. Personnel must annually train on Good Housekeeping/BMP measures related to the environmental impact of deicing.

BMPs for Deicing Operations	
Targeted Constituent: <i>Ethylene Glycol</i>	
BMP	BMP Description
Non-Structural BMPs	
Good Housekeeping	<ul style="list-style-type: none"> • Operation and Maintenance <ul style="list-style-type: none"> ○ Keep aircraft and aircraft parking areas neat and clean ○ Provide adequate space for easy access and application ○ Ensure that storm water inlets are blocked when deicing during dry weather ○ Ensure no runoff to vegetated areas ○ Use only enough deicing chemicals to ensure safe operation of aircraft. Excess chemicals add to storm water contamination from drip and shear of deicing chemicals. ○ Avoid overspray of deicing chemicals ○ Use mechanical vacuum systems or other devices to collect aircraft deicing runoff from the apron surface for proper disposal ○ Dispose of collected aircraft deicing runoff • Follow Material Inventory Procedures <ul style="list-style-type: none"> ○ Identify all hazardous material and material usage ○ Ensure MSDSs are readily available ○ Label all containers to show the name and type of substance, stock number, expiration date, etc.
Preventive Maintenance	<ul style="list-style-type: none"> • Operate and maintain equipment as required for efficient operation • Inspect equipment for leaks and promptly respond to leaks or spills • Consider safer alternative products • Program schedule for maintenance/repair or replacement of defective equipment • Document all inspections and corrective action
Minimize Exposure of Equipment to Rainfall and Runoff	<ul style="list-style-type: none"> • Avoid outdoor storage of leaking equipment, unless absolutely necessary (in which case, leaking material shall be contained) • Cover materials that contain potential pollutants • Inspect equipment/vehicles prior to use each for leaking parts, damaged hoses and leaky gaskets. Move equipment to a protected location or contain the leaking. Repair or replace as necessary.
Employee Training Program	<ul style="list-style-type: none"> • Train employees on the content and goals of the SWPPP • Train employees in the areas of spill prevention and responses, good housekeeping, material management practices, and preventive maintenance practices
Spill Response	<ul style="list-style-type: none"> • Store spill response kits, including dry cleanup materials, in areas where spills might occur. • Use dry cleanup methods (e.g., kitty litter, absorbent fabrics) • Maintain the current Integrated Contingency Plan
Structural BMPs	
Deicing Area Design Guidelines	<ul style="list-style-type: none"> • Pave and maintain areas used for deicing operations to contain spills.