

Luke Air Force Base

Stormwater Management Plan

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DOCUMENT CONTROL

The Record of Reviews and Updates is listed below:

Record of Reviews

Review Date	Review Participants	Notes/Remarks	Result in Plan Update? (Yes or No)
21 Nov 2018	Scott Mendenhall	Updated web addresses	No
17 May 2019	Scott Mendenhall	Updated Maps	No
30 Sep 2020	Scott Mendenhall	Updated to match 2019 NOI	Yes
9 Dec 2021	Scott Mendenhall	Review	No
27 Sep 2023	Scott Mendenhall	Review	No

Record of Updates

Change No.	Nature of Change	Date of Change	Approved By
1	Changed MCM 6 to match 2019 NOI	30 Sep 2020	

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STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

1.0 INTRODUCTION

This document was prepared by Luke Air Force Base (LAFB) to comply with the State of Arizona, Department of Environmental Quality, Water Quality Division's Arizona Pollutant Discharge Elimination System (AZPDES) General Permit for Discharge from Small Municipal Separate Storm Sewer Systems (MS4s) to Waters of the United States (hereinafter referred to as the Small MS4 General Permit) (Appendix C of this SWMP). This document constitutes LAFB's Stormwater Management Plan (SWMP) and meets the requirements of the Notice of Intent (NOI) and Small MS4 General Permit.

This SWMP addresses the six (6) minimum control measures as required by the Small MS4 General Permit. These six minimum control measures are:

- Public Education and Outreach
- Public Participation/Involvement
- Illicit Discharge Detection and Elimination
- Construction Site Runoff Control
- Post-Construction Runoff Control
- Pollution Prevention / Good Housekeeping for Municipal Operations

The following sections address the methods and best management practices (BMPs) that will be implemented to achieve the purpose of each of the six (6) minimum control measures under the Small MS4 General Permit. The United States Environmental Protection Agency (EPA) has two web sites that provide additional methods and BMPs that can be used in the future to update this SWMP, when necessary: <https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater-documents> and <https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu>.

General fact sheets concerning the Phase II regulations have been prepared by the EPA and can be found at <https://www.epa.gov/npdes/stormwater-phase-ii-final-rule-fact-sheet-series>.

In addition, the Arizona Department of Environmental Quality (ADEQ) has their own website, which contains information for their specific stormwater program and permit requirements: <http://www.azdeq.gov/environ/water/permits/stormwater.html>.

STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

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STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

2.0 PERMIT APPLICATION REQUIREMENTS

The NOI serves as the application for coverage under the Small MS4 General Permit. The ADEQ NOI consists of basic information such as the facility operator information (name, address) and facility / site information (name, address, latitude/longitude, receiving waters, applicable Standard Industrial Classification (SIC) codes), and a certification name/signature. In addition to the general information in the NOI form, a description of the stormwater management program must also be included, as described in Section 2.1 below.

2.1 Steps for Permit Application Process

The following outlines the requirements for the Small MS4 General Permit application:

1. Complete the information required in the NOI form.
2. Provide, along with the NOI, BMPs that will be used for the six minimum control measures.
3. Provide measurable goals for each minimum control measure (i.e., narrative or numeric standards used to estimate program effectiveness).
4. Estimated months and years in which management actions to start and fully implement each measurable goal will be undertaken, including interim milestones and frequencies.
5. A listing of the person or persons responsible for implementing or coordinating the stormwater program (not necessarily by name, but rather by title).

Note: all minimum control measures and their associated BMPs and Measurable Goals at Luke AFB are the responsibility of Mr. Scott Mendenhall, the LAFB Stormwater Program Manager.

It is important to note that the chosen BMPs and measurable goals, when submitted to the regulatory authority as a part of the permit application, **become the mandatory stormwater management program** as required under the Small MS4 General Permit.

Sections 3.0 through 8.0 describe each of the six minimum control measures, and provide tables of LAFB's BMPs and measurable goals.

STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

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STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

3.0 MINIMUM CONTROL MEASURE 1 – PUBLIC EDUCATION AND OUTREACH

The principal requirement of this measure is distribution of educational materials and performance of outreach activities to inform and raise awareness levels of Base employees about the negative impacts of polluted stormwater runoff on surface water quality, and the activities within their control that can reduce pollutants in stormwater.

3.1 Base Population / Target Audience

LAFB is comprised of approximately 3,000 acres. LAFB supports a work force of approximately 5,500 military and 1,300 civilians. The host unit on Base is the 56th Fighter Wing, which provides administrative, medical, and logistical support to all units on Base. The 56th Wing consists of four groups: the Operations Group, Maintenance Group, Mission Support Group, and Medical Group.

To reach all audiences on Base, information (brochures, pamphlets, or posters) must be placed in a wide variety of locations such as the Base library, credit union / bank, Base Exchange (BX), and self-help stores. Other options for disseminating information include publishing notices, brochures, and articles in the Base newspaper and communicating through mass e-mails.

3.2 Pollutants in Luke AFB Small MS4

Luke AFB has been identified as an industrial facility with stormwater discharge associated with industrial activities under 40 CFR 122.26 (c) and obtained authorization to discharge under the 2019 Stormwater Multi-Sector General Permit for Industrial Activities (AZMSG2019-001). The Multi-Sector General Permit regulates stormwater discharges from industrial activities and requires the base to have a Stormwater Pollution Prevention Plan (SWPPP) that addresses these activities. Luke AFB also operates under the ADEQ AZPDES Construction General permit. The AZPDES Construction General permit regulates stormwater discharges from construction activities from sites greater than one acre in size and requires the base or the construction contractor to submit a NOI and create a SWPPP for each project.

Paragraph 6.3.6 of the ADEQ AZPDES Small MS4 General permit (AZG2021-002) outlines a list of non-stormwater discharges that are allowable if they are not a significant contributor of pollutants to the MS4. Luke AFB expects to have several of these allowable non-stormwater discharges and the list is contained in section 5.0 of this SWMP.

The goal of this minimum control measure is to distribute educational materials on a regular basis to Base personnel on pollution prevention concerns and associated BMPs to minimize and / or eliminate these concerns. The intent of this educational program is that Base personnel apply these BMPs on-Base, and at home.

Non-industrial stormwater pollutant concerns on-Base include pesticide, herbicide, and fertilizer usage; and collection and disposal of trash, hazardous waste, landscaping waste, and non-hazardous materials such as used automotive lubricants. Although Base housing has been privatized, other sources of pollutants, such as pet waste, are also a concern.

STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

3.3 Public Education and Outreach Measurable Goals

BMPs and measurable goals for this minimum control measure are as follow:

Table 3.0: Public Education and Outreach

MCM 1	Public Education and Outreach
BMP 1	Brochure
Description	Distribution of broad-scope flyers by the Water Program Manager and Unit Environmental Coordinators for distribution to base offices.
Measureable Goals	Provide public education/outreach to at least one (1) target group on one (1) or more of the topics each year. Document in the annual report the outreach approach selected, the topic, and the target group.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager
Status	In Progress

MCM 1	Public Education and Outreach
BMP 2	Article
Description	Publish a unique article that: 1. Informs base personnel about stormwater pollution. 2. Outlines initiatives personnel/residents can implement that will mitigate stormwater pollution. 3. Motivates a change in behavior so that pollutants in stormwater are reduced.
Measureable Goals	At least once annually provide Base Paper (Thunderbolt) an article with target topic both online and in print.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager
Status	In progress

MCM 1	Public Education and Outreach
BMP 3	Display/Posters
Description	Develop and maintain posters and outreach display toolkit that: 1. Informs base personnel regarding stormwater pollution. 2. Outlines initiatives personnel/residents can implement that will mitigate stormwater pollution. 3. Motivates a change in behavior to reduce stormwater pollutants.
Measureable Goals	Maintain and improve posters for stormwater controls relative to facility operational stormwater potential impacts. Topics include vehicle maintenance, bulk fuel loading/unloading, OWS management, FOGS, and parking lot maintenance. Annually document distribution locations and number of posters distributed/posted.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager
Status	In progress

MCM 1	Public Education and Outreach
BMP 4	Special Event
Description	Organizing public outreach activities and host avenues for base population participation.
Measureable Goals	At a minimum, provide education/outreach to at least two (2) target groups on one (1) or more appropriate topics each year. Document in the annual report the outreach approach selected, the topic, the target group and an estimated number of personnel reached. Target groups: Aircraft maintenance, equipment maintenance, vehicle maintenance, civil engineering, eating venues, tenant organizations, contractors. 1. Luke AFB will host two outreach events annually for base population (retired and military). Outreach activities will be formally documented to describe the efforts, audience, and impacts.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager
Status	In progress

MCM 1	Public Education and Outreach
BMP 5	Webpage
Description	Maintain/Update internal SharePoint communication tool.
Measureable Goals	Document in the annual report that the SharePoint webpage is being maintained.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager
Status	In progress

MCM 1	Public Education and Outreach
BMP 6	AZ Storm participation has been changed to AZ Water participation
Description	Participate in the AZ Water meetings and training events.
Measureable Goals	1. Document in the annual report the number of AZ Water meetings attended. 2. Document in the annual report the number of AZ Water training events attended and the topics of the events.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager
Status	In progress

MCM 1	Public Education and Outreach
BMP 7	Fats, Oil, Grease and Starch (FOGS) Management
Description	Develop and implement a comprehensive FOGS Program.
Measureable Goals	1. Develop specific FOGS educational and management reminder flyer for all food service establishments. 2. Annually report the number of facilities that received the flyers.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager/Facility Managers
Status	In progress

STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

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STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

4.0 MINIMUM CONTROL MEASURE 2 – PUBLIC INVOLVEMENT / PARTICIPATION

All AF MS4 stormwater management programs ensure involvement of the base population in all facets of the program; from developing BMPs to performing installation clean up activities.

The purpose of the public participation and involvement control measure is to allow personnel that work and live on Luke AFB to participate in the development / implementation of the storm water program.

The objective of the following three BMPs is to get base personnel involved with the stormwater program. Encouraging people to participate in the development and implementation of the program will foster a sense of ownership and lead to proactive choices when it comes to stormwater pollution (Table 4.0).

4.1 Public Participation

The requirement for public participation is met at Luke AFB through the installation's Environmental, Safety and Occupational Health Leadership Council (ESOHLC), which represents all personnel on Base. Luke AFB Stormwater Manager will notify Base personnel of opportunities to participate in Base events relating to the SWMP through distribution of brochures at common areas and during Base events, publishing articles and brochures in the Base newspaper on a regular basis, through mass e-mails, and through use of the Luke AFB eDash website found at <https://cs2.eis.af.mil/sites/10625/Luke/SitePages/Home.aspx>.

4.2 Public Comments

The SWMP is open to all public comments. Comments are submitted to the Stormwater Manager, Mr. Scott Mendenhall, for review.

The Base public can access the SWMP through the Luke AFB eDash website. Access to this is limited for security reasons to personnel with valid access to the LAFB military intra-net domain. In addition, the SWMP may be reviewed by interested parties during normal business hours by contacting the Stormwater Manager, Mr. Scott Mendenhall at 623-856-3621, or at scott.mendenhall@us.af.mil.

Public comments regarding concerns or suspect activity that may impact stormwater quality, such as runoff concerns from construction sites or observations of *illegal* dumping, will be solicited from Base personnel through use of the eDash web site, and through brochures distributed during Base events.

STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

4.3 Public Involvement / Participation Measurable Goals Table

Table 4.0. Measurable Goals for Public Involvement/Participation

MCM 2	Public Involvement and Participation
BMP 1	Public Involvement
Description	Seeking active involvement of base personnel with written plans (SWMP).
Measureable Goals	<ol style="list-style-type: none"> 1. Luke AFB will annually advertise to, and seek comment from, the base population concerning the SWMP. 2. Notification will be made by email, electronic SharePoint or through the environmental management system leadership meetings. 3. Comments will be reviewed, analyzed, and incorporated by the Stormwater Program Manager. 4. Post the most current SWMP and the latest annual report to the base's website or SharePoint site.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager
Status	In progress

MCM 2	Public Involvement and Participation
BMP 2	Public Participation
Description	On a quarterly basis send out questionnaires to all of the Base Facility Managers. The questionnaires will have the Facility Managers document their compliance with training and compliance with BMPs.
Measureable Goals	<ol style="list-style-type: none"> 1. Document in the annual report the dates the quarterly questionnaires were emailed to the Facility Managers.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager/Base Personnel
Status	In progress

5.0 MINIMUM CONTROL MEASURE 3 – ILLICIT DISCHARGE DETECTION AND ELIMINATION

The permittee shall implement an IDDE program to find and eliminate sources of non-stormwater to its municipal separate stormwater sewer system and to implement procedures to prevent illicit connections and discharges.

All AF MS4s have measures in place to detect and eliminate illicit discharges to the stormwater system. Illicit discharges include intentional non-stormwater discharges and incidental non-stormwater discharges. Installation illicit discharge detection and elimination measures include both proactive and reactive measures for preventing or limiting these types of discharges. The Environmental Element of the 56 CES is the lead department responsible for implementing the IDDE program. The authority to implement the IDDE program is established by Air Force Manual (AFMAN) 32-1067 Water and Fuel Systems, AFI 32-7045 ECAMP, and Air Force Policy Directive (AFPD) 32-70 Environmental Quality.

The purpose of the illicit discharge detection and elimination control measure is to develop and implement a program to detect, reduce, and / or eliminate illicit discharges to a facility's storm water system. Not all non-stormwater discharges will be considered illicit. Within part 6.3.6 of the ADEQ AZPDES Small MS4 General permit, there are listed categories of allowable non-stormwater discharges. These discharges are allowed as long as they are not significant contributors of pollutants to the MS4. Luke AFB expects to encounter the following:

- **Water line flushing**
- **Landscape irrigation**
- **Diverted stream flows**
- **Rising ground waters**
- **Uncontaminated groundwater infiltration to separate storm sewers**
- **Uncontaminated pumped groundwater**
- **Discharges from potable water sources**
- **Foundation drains**
- **Air conditioning condensate**
- **Irrigation water**
- **Springs**
- **Water from crawl space pumps**
- **Footing drains**
- **Lawn watering**
- **Individual residential car washing**
- **Flows from riparian habitats and wetlands**
- **Dechlorinated swimming pool discharges**
- **Street wash water**
- **Discharge or flows from firefighting activities**
- **Discharges authorized by another NPDES or AZPDES permit**

The objectives of the following eight BMPs (Table 5.0) are (1) to train base personnel, equal with their level of program involvement, to be better equipped to detect, identify and report illicit discharges; (2) to ensure practices and procedures are in place to prevent stormwater contamination from oil, hazardous material, or toxic material spills; (3) to ensure all stormwater outfalls are identified / mapped and to ensure the outfalls are properly inspected; and (4) to ensure practices and procedures are in place to investigate reported / discovered illicit non-stormwater discharges (to determine if they are allowable or require further investigation) and to ensure appropriate actions are taken to eliminate illicit discharges in the future.

Table 5.0. Measurable Goals for Illicit Discharge Detection & Elimination

MCM 3	Illicit Discharge Detection and Elimination
BMP 1	Dry Weather Screening
Description	At least twice per year (once during the winter wet season, and once during the summer wet season) inspect the six major outfalls for illicit discharges during dry weather, non-rain events.
Measureable Goals	<ol style="list-style-type: none"> 1. Document in the annual report the dates of the inspections. 2. The inspector will trace a dry weather flow to its source and determine if the flow is the result of an illicit discharge. 3. If an illicit discharge is identified, document in the annual report the measures taken to eliminate the illicit discharge.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager; Base Personnel
Status	In progress

MCM 3	Illicit Discharge Detection and Elimination
BMP 2	Wet Weather Monitoring
Description	Inspection of stormwater outfalls during rain events.

Measureable Goals	<p>1. Perform a minimum of two (2) visual inspections per year for the six (6) major outfalls, during rain events for both wet seasons. Summer wet season includes June through October. Winter wet season includes November through May. A visual inspection will include documenting the following:</p> <ul style="list-style-type: none"> • Flow being present or not • Water color, odor and clarity • If floating/settled/suspended solids exist • If there is foam, an oil sheen or other form of pollution (i.e. trash, debris, etc.) <p>2. Annually report inspection dates and results.</p>
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager; Base Personnel
Status	In progress

**STORMWATER MANAGEMENT PLAN Luke
Air Force Base, Arizona**

Table 5.0. (Cont.)

MCM 3	Public Involvement and Participation
BMP 3	Implement Illicit Discharge Detection and Elimination Program
Description	Implement Illicit Discharge Detection and Elimination Program.
Measureable Goals	1. Document in the annual report that an IDDE program has been implemented.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager; Facility Managers; Base Personnel; and Luke AFB Fire Department.
Status	In progress

MCM 3	Illicit Discharge Detection and Elimination
BMP 4	Written IDDE Procedures
Description	Ensure practices and procedures are in place to investigate reported / discovered illicit or non-stormwater discharges (to determine if they are allowable or require further investigation) and to ensure appropriate actions are taken to eliminate illicit discharges.
Measureable Goals	1. Document in the annual report the number of reported / discovered discharges, the number of those discharges investigated and the outcome of the investigation. 2. If the initial investigation reveals that the discharge is not an allowable discharge as listed under section 5.0 above document in the annual report the measures instituted to stop the discharge and to prevent the discharge from occurring in the future. 3. Conduct follow-up screening to ensure they do not recur.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager
Status	In progress

MCM 3	Illicit Discharge Detection and Elimination
BMP 5	Training
Description	Train base personnel equal with their level of program involvement regarding the detection, identification, and reporting of illicit discharges.
Measureable Goals	1. Provide training to personnel in the detection, identification, and reporting of illicit non-stormwater discharges. 2. Document in the annual report the number of personnel trained and document why if no personnel were trained.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager; GIS Informational Manager
Status	In progress

STORMWATER MANAGEMENT PLAN Luke

Table 5.0. (Cont.)

MCM 3	Illicit Discharge Detection and Elimination
BMP 6	Training
Description	Train base personnel equal with their level of program involvement regarding best management practices to prevent stormwater contamination.
Measureable Goals	<ol style="list-style-type: none"> 1. Provide training to general base population employees to equip personnel regarding best management practices to prevent stormwater contamination, and how to respond as expeditiously as possible if an oil, hazardous material, or toxic material spill occurs. 2. Document in the annual report the number of personnel trained.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager; GIS Informational Manager
Status	In progress

STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

Table 5.0. (Cont.)

MCM 3	Illicit Discharge Detection and Elimination
BMP 7	Outfall Inventory
Description	Ensure all stormwater outfalls are identified and mapped and ensure the outfalls are properly inventoried.
Measureable Goals	1. Maintain a GIS map that identifies all the major outfalls and the illicit discharge source(s) if identified / known. Document in the annual report any updates to the map.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager
Status	In progress

MCM 3	Illicit Discharge Detection and Elimination
BMP 8	Stormwater Sewer Mapping
Description	Maintain and update Storm Sewer Mapping as new construction is completed.
Measureable Goals	1. Annually Review Storm System Maps to ensure Maps are current. 2. Include updates to the GIS system once construction or modification has been accepted by the government. 3. Document in the annual report significant changes and the number of updates required.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager; Emergency Management Personnel; Base Personnel; Facility Managers
Status	In progress

STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

6.0 MINIMUM CONTROL MEASURE 4 – CONSTRUCTION SITE RUNOFF CONTROL

The construction site runoff control measure is intended to reduce pollutants in stormwater runoff from construction activities that result in a land disturbance of greater than or equal to one acre. The requirements for construction site runoff control are outlined below.

6.1 Regulatory and Enforcement Mechanisms

A construction program that provides for the control of polluted runoff must be established for each construction site disturbing a soil area greater than one (1) acre. It should be noted that most of the construction work that is performed at Luke AFB is completed by outside contractors, which are required by contract to obtain any required AZPDES permits for construction activity per ADEQ and EPA regulations (only minor construction activities, which are generally less than one (1) acre in size, are completed by Base personnel). This includes submittal of the NOI for coverage under the permit and preparation and implementation of the associated SWPPP, which includes implementing stormwater BMPs to minimize impacts of construction activities on surface waters. This construction program is further established and explained to contractors through the *Luke AFB Environmental Guide for Contractors* that provides assistance to contractors in meeting Federal, State, and local environmental regulations while working on Luke AFB. This program is administered by 56 CES/CEIEC with enforcement authority established by AFPD 32-70 Environmental Quality.

Training for Quality Assurance Evaluators (QAE) / construction inspectors is performed for all new projects. For all construction projects, training is provided prior to construction and during the construction phases, on an as needed basis (such as for new sub-contractors).

All new contractors are required to provide and maintain training and applicable certifications for each project prior to project initiation. Subsequent inspections are performed to ensure the sites are in conformance with project SWPPPs.

The objectives of the following six BMPs are: (1) to train base personnel, equal with their level of program involvement, to be better equipped to detect effective construction site stormwater controls; (2) to ensure all construction projects disturbing one acre of land or more have a Stormwater Pollution Prevention Plan (SWPPP) and that it addresses all requirements outlined in the ADEQ AZPDES General Permit for Discharges from Construction Activities; and (3) to ensure construction site owners/operators are complying with the site's SWPPP.

STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

Additionally, the Air Force's *Engineering Technical Letter (ETL) 14-1: Construction and Operation and Maintenance Guidance for Stormwater Systems* "provides procedures and practices to eliminate or minimize stormwater pollution resulting from Air Force construction activities".

6.2 Site Plan Review

Prior to the start of construction, 56 CES/CEIEC will review the site plan(s) for the project. Site plan review is necessary for compliance because it alerts the reviewer early in the process to the planned use or non-use of proper BMPs and provides a way to track new construction activities. Possible structural BMPs that could be included in the construction project are the use of wattles, silt fences, rock berms, erosion control mats, drainage swales, detention ponds, etc. Various other BMPs to choose from are located at the International Stormwater BMP Database web site at <http://www.bmpdatabase.org/>.

6.3 Construction Site Runoff Control Measurable Goals

Based on the implementation of the BMPs listed above, measurable goals for this control measure are as follows in **Table 6.0**:

STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

Table 6.0 Measurable Goals for Construction Site Runoff Control

MCM 4	Construction Activity Stormwater Runoff Control
BMP 1	Training
Description	Support contractor training to ensure compliance with SWPPP and proper stormwater controls are instituted and maintained and do not impact the installation stormwater system.
Measureable Goals	1. Provide training for each construction site. 2. Document in the annual report the number of personnel trained. 3. Training will include construction site SWPPP review, requirements for structural and non-structural control measures for sediment and erosion control, construction control measures maintenance requirements, inspection procedures, post-construction stormwater controls, and enforcement procedures.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager; Construction Site Superintendents; Construction Quality Assurance Evaluators
Status	In progress

MCM 4	Construction Activity Stormwater Runoff Control
BMP 2	Site Plan and SWPPP Review
Description	To ensure all construction projects disturbing one acre of land or more have a Stormwater Pollution Prevention Plan (SWPPP) and that it addresses all requirements outlined in the ADEQ Construction General Permit for Discharges from Construction Activities.
Measureable Goals	1. Luke AFB will review 100 percent of construction site SWPPPs. 2. Document in the annual report the number of SWPPPs submitted and the number reviewed.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager; Construction Site Superintendents; Construction Quality Assurance Evaluators
Status	In progress

MCM 4	Construction Activity Stormwater Runoff Control
BMP 3	Control Wastes
Description	Ensure all waste materials on the construction sites are handled appropriately.
Measureable Goals	1. During inspections, verify that waste materials including but not limited to discarded building materials, paints, fertilizers, concrete wash out, chemicals, litter, and sanitary wastes are being handled appropriately. 2. Annually document any issues or non-compliance with on-site wastes.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager; Construction Site Superintendents; Luke Contracting Officers
Status	In progress

STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

Table 6.0. (Cont.)

MCM 4	Construction Activity Stormwater Runoff Control
BMP 4	Inspections and BMP Sediment / Erosion Control
Description	Ensure construction site owners / operators are complying with sediment and erosion control BMPs.
Measureable Goals	<ol style="list-style-type: none"> 1. Inspection of the construction sites at least every month to ensure controls are being maintained, and that they are effective. 2. If issues are discovered, present contractor with required remedies, and conduct follow-up inspection to verify compliance. 3. Document in the annual report the number of sites inspected each year, and the results from the inspections.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager; Construction Site Superintendents; Construction Quality Assurance Evaluators
Status	In progress

MCM 4	Construction Activity Stormwater Runoff Control
BMP 5	Inspections
Description	Ensure construction site owners / operators are complying with the project SWPPP.
Measureable Goals	<ol style="list-style-type: none"> 1. Inspection of the construction sites at least every month to ensure controls are being maintained, and that they are effective. 2. If issues are discovered, present contractor with required remedies, and conduct follow-up inspection to verify compliance. 3. Document in the annual report the number of sites inspected each year, and the results from the inspections.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager; Construction Site Superintendents
Individual(s)	Construction Quality Assurance Evaluators
Status	In progress

MCM 4	Construction Activity Stormwater Runoff Control
BMP 6	Inventory
Description	Maintain an inventory of all construction projects disturbing one acre of land or more or that are part of a larger plan that will ultimately disturb one acre or more.
Measureable Goals	<ol style="list-style-type: none"> 1. Luke AFB will receive / maintain Notices of Intent (NOI) and Notices of Termination (NOT) forms submitted to ADEQ for construction projects, and maintain an inventory of the projects. 2. Document in the annual report how many NOI and NOT forms were received.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager; Construction Site Superintendents
Individual(s)	Construction Quality Assurance Evaluators
Status	In progress

STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

7.0 MINIMUM CONTROL MEASURE 5 – POST-CONSTRUCTION RUNOFF CONTROL

Permittees shall develop, implement, and enforce a program to address post-construction stormwater runoff from new development and redevelopment projects that disturb one or more acres of land that discharge into the permittee’s MS4.

All AF MS4s have measures in place to reduce discharges to stormwater of sediment and other potential pollutants from new and / or redevelopment projects. Standard Post-Construction Runoff Control BMPs include:

- Site plan review and implementing strategies for both structural and non-structural BMPs in the development;
- A program to ensure adequate long-term operation and maintenance of BMPs.

7.1 Regulatory and Enforcement Mechanisms

ETL 14-1 requires that post-construction runoff control measures instituted during the construction phase are adequate, complete and maintained to achieve the desired result of reducing / eliminating post-construction pollutants in stormwater runoff.

The objective of the following four BMPs is to visually check to ensure the long term structural controls instituted during the construction phase are adequate, complete and maintained.

Table 7.0: Post-Construction Stormwater Management

MCM 5	Post-Construction Stormwater Management
BMP 1	Site Plan Review
Description	Site plan review to ensure all construction projects addresses post-construction stormwater.
Measureable Goals	1. Review all of site plans for projects disturbing one acre or more before the start of construction. 2. Document in the annual report the number of site plans reviewed.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager; Facility Managers
Status	In progress

STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

Table 7.0. (Cont.)

MCM 5	Post-Construction Stormwater Management
BMP 2	Inspections
Description	Inspect construction sites after construction is finished to make sure that post-construction stormwater controls were installed, or implemented.
Measureable Goals	1. Document in the annual report the number of post-construction inspections conducted, and the results of the inspections.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager; Construction Site Superintendents; Construction Quality Assurance Evaluators
Status	In progress

MCM 5	Post-Construction Stormwater Management
BMP 3	O&M Procedures
Description	Ensure that there are operation and maintenance procedures for the post-construction stormwater controls, and that they are followed.
Measureable Goals	1. Luke AFB will inspect all closed sites annually for 5 years after closure of the site to ensure no site conditions change that could negatively impact stormwater quality at the Base. 2. Document in the annual report the number of sites inspected and results of the stormwater control(s) effectiveness assessments.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager; Facility Managers
Status	In progress

MCM 5	Post-Construction Stormwater Management
BMP 4	Inventory
Description	Maintain copies of all NOI and NOT forms, and a list of post-construction controls, for up to 5 years for construction projects at Luke AFB.
Measureable Goals	1. Luke AFB will receive / maintain Notices of Intent (NOI) and Notices of Termination (NOT) forms submitted to ADEQ for construction projects and store on the internal SharePoint or Base servers for a minimum of 5 years after completion. 2. Luke AFB will maintain a database of all post-construction stormwater control measures. 3. Document in the annual report that the database of post-construction controls is being maintained.
Target Date	April 2019
Responsible Individual(s)	Stormwater Program Manager; Facility Managers
Status	In progress

STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

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STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

8.0 MINIMUM CONTROL MEASURE 6 – POLLUTION PREVENTION / GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

The purpose of the pollution prevention / good housekeeping control measure is to endorse, support, and provide guidance on pollution prevention and good housekeeping measures. Luke AFB follows Air Force mandated instructions (AFI's) and Base developed instructions (LAFBIs) that specifically outline program responsibilities for good housekeeping and pollution prevention for critical environmental programs (HW, SW, HAZMAT, Water Quality) in addition to maintaining a very comprehensive SWPPP under the multi-sector general permit.

8.1 Municipal Operations

The MS4 2019 NOI changed how ADEQ addresses MCM 6. First, specific Municipal Operations were identified, and then BMPs for those operations were identified.

Four Municipal Operations, or Facilities, were identified for Luke in the 2019 NOI. They were: 1. New construction less than one acre in size; 2. Open space maintenance; 3. Stormwater sewer infrastructure; and 4. Streets and parking lots.

Ten BMPs were identified for the four municipal operations or facilities. Table 8.0 lists the BMPs and their measurable goals. The responsible individual for ensuring they are followed is the Stormwater Program Manager, and the status for all of them is they are In Progress.

STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

Table 8.0. Measurable Goals for Pollution Prevention / Good Housekeeping

MCM 6	Pollution Prevention / Good Housekeeping
BMP 1	Inspect approximately 25% of the storm sewer conveyance system each year. Submit work requests for any repairs needed.
Measureable Goals	1. Document in the annual report the areas that were inspected.
BMP 2	Maintain an inventory of facilities that require pollution prevention and good housekeeping.
Measureable Goals	1. Document in the annual report that the inventory is being maintained.
BMP 3	Establish operation and maintenance procedures for the conveyance system. Submit work requests for any repairs needed.
Measureable Goals	1. Document in the annual report that the O&M procedures for the conveyance system are being accomplished.
BMP 4	Training for maintenance personnel.
Measureable Goals	1. Document in the annual report that training is being conducted for the maintenance personnel.
BMP 5	Maintenance activities – street sweeping, removal of trash from the system, and proper use of fertilizers and pesticides.
Measureable Goals	1. Document in the annual report that the maintenance activities are being accomplished.
BMP 6	Maintenance schedule – use Builder, or similar to track facility maintenance. Send quarterly assessment to Facility Managers.
Measureable Goals	1. Document in the annual report that the maintenance schedules are being tracked. 2. Document in the annual report the dates the quarterly assessments were sent to the Facility Managers.
BMP 7	Street sweeping – weekly sweeping of the major streets on Base.
Measureable Goals	1. Document in the annual report that the street sweeping is being accomplished.
BMP 8	Facilities Inspections – inspect the facilities on at least a quarterly basis. Send out a quarterly assessment to the Facility Managers.
Measureable Goals	1. Document in the annual report the dates the quarterly assessments were sent to the Facility Managers.
BMP 9	Reduce trash – send quarterly assessment to the Facility Managers and include instructions to remove all trash around their facilities.
Measureable Goals	1. Document in the annual report the dates the quarterly assessments were sent to the Facility Managers.
BMP 10	Establish operation and maintenance procedures for the facilities. Submit work requests for any repairs needed.
Measureable Goals	1. Document in the annual report that the O&M procedures for the facilities are being accomplished.

STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

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9.0 ANALYTICAL MONITORING

The Luke AFB storm sewer system drains to the Dysart Drain and the Bullard Wash; both of which then drain into the Agua Fria River. The Agua Fria River does not have an established total maximum daily load (TMDL) nor was it listed in the Arizona 2006/2008 303 (d) Impaired Waters list. Therefore, Luke AFB is not required to, and will not sample and analyze the stormwater discharge from its small MS4 system.

10.0 PROGRAM ASSESSMENT, RECORDKEEPING, AND REPORTING

All AF MS4s have measures in place to ensure compliance with applicable permit recordkeeping and reporting requirements. Records are stored and maintained IAW Air Force Manual 33-363, Management of Records, and records are archived and disposed IAW the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS).

Luke AFB submits annual reports to ADEQ for each year of the permit term. The annual reports cover activities from the effective date of the permit or July 1, to June 30. Annual reports, and Discharge Monitoring Reports, are submitted not later than September 30 each year. Luke AFB retains SWMP documentation at the Environmental Element office and / or as electronic records on the element's intranet server:

\\52nuex-fs-001\56msg\56CES\CEAN\COMMON\14 Water
Quality\Water\Luke AFB\Storm Water\MS4 Permit Muni Sep Stormwater
Sewer Sys\Storm Water Management Program (SWMP)

Records will be maintained for a period of at least 3 years from the date permit coverage ends. The documents will be made available to the public with appointment during normal business hours.

STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

10.1 REPORTING REQUIREMENTS

The following subsections describe the frequency of reporting and required report content as required by the Small MS4 General Permit. Located in Appendix D are annual reports submitted by LAFB to ADEQ.

10.1.1 Frequency of Reports

Annual Reports and Discharge Monitoring Reports must be submitted annually. Reports are submitted online using ADEQ's MyDEQ website.

10.1.2 Required Report Content

There are three basic content requirements of the reports submitted to the NPDES permitting authority:

1. Status of compliance with permit conditions – Includes assessment of the appropriateness of the selected BMPs and progress toward achieving the selected measurable goals for each of the six minimum measures.
2. Results of any information collected pertaining to stormwater management, including monitoring data.
3. Any changes in identified BMPs or measurable goals for any minimum measure.

STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

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**STORMWATER MANAGEMENT PLAN Luke
Air Force Base, Arizona**

10.2 REFERENCES

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<http://www.getwise.org/>
2. Education Resources, United States Geological Survey Water Resources.
[http:// water.usgs.gov/education.html](http://water.usgs.gov/education.html)
3. General fact sheets concerning the Phase II regulations, United States Environmental Protection Agency, June 2000.
<https://www.epa.gov/npdes/stormwater-phase-ii-final-rule-fact-sheet-series>
4. Stormwater Best Management Practices (BMPs), United States Environmental Protection Agency.
<https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater-documents>
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5. Stormwater program and permit requirements, Arizona Department of Environmental Quality (ADEQ).
<http://www.azdeq.gov/environ/water/permits/stormwater.html>
6. International Stormwater BMP Database.
<http://www.bmpdatabase.org/>
7. Civil Engineering Publications – 32- series
<http://www.e-publishing.af.mil>
8. NPDES Stormwater Pollution Additional Documents, United States Environmental Protection Agency.
<https://www.epa.gov/npdes/npdes-stormwater-pollution-additional-documents>

STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

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STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

TABLE OF APPENDICES

Note: the documents that are the appendices are found in the printed version, and are also stored electronically in the CEIE folders.

ACRONYMS AND DEFINITIONS	APP. A
NOTICE OF INTENT	APP. B
AZDEQ GEN PERMIT	APP. C
ANNUAL REPORTS	APP. D
Dry-Wet VISUAL INSPECTIONS	APP. E
STORM SEWER SYSTEM MAPS	APP. F
PUBLIC EDUCATION & OUTREACH	APP. G
LUKE AFB Shops Qtly Visual INSPECTIONS	APP. H
BLANK INSPECTION FORM	APP. I
POTENTIAL SW POLLUTANTS	APP. J
SPILL PREVENTION PLAN	APP. K
BMPS	APP. L

STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

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STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

Appendix A: Acronyms and Definitions

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STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

LIST OF ACRONYMS

AAFES	Air Force Exchange Services
A&E	Architecture and Engineering
ACC	Air Combat Command
AFI	Air Force Instruction
ASCE	American Society of Civil Engineers
AST	Aboveground Storage Tank
AZPDES	Arizona Pollutant Discharge Elimination System
BMP	Best Management Practice
BX	Base Exchange
CE	Civil Engineering
CWA	Clean Water Act
LAFB	Luke Air Force Base
DoD	Department of Defense
EPA	Environmental Protection Agency
ESOH CAMP	Environmental, Safety and Occupational Health Compliance Assessment and Management Program
ESOHLC	Environmental, Safety and Occupational Health Leadership Council
ETL	Engineering Technical Letter
HMERP	Hazardous Material Emergency Response Plan
LCRA	Lower Colorado River Authority
MS4	Municipal Separate Storm Sewer System
MSGP	Multi-Sector General Permit
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
O&M	Operation and Maintenance
OWS	Oil/Water Separator
SSO	Sanitary Sewer Outflows
SWMP	Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan

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Luke Air Force Base, Arizona

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STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

DEFINITIONS

Best Management Practices (BMPs)

Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Discharge of a Pollutant

1. Any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source," or
2. Any addition of any pollutant or combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This definition includes additions of pollutants into waters of the United States from: surface runoff that is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a state, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any "indirect discharger."

Illicit Connection

Any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

Illicit Discharge

Any discharge to a municipal separate storm sewer that is not composed entirely of stormwater except discharges pursuant to a NPDES or AZPDES permit (other than the NPDES or AZPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from firefighting activities.

Measurable Goal

A quantitative measure of progress in implementing a component of a stormwater management system.

Minimum Control Measure

Refers to any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the United States.

Municipal Separate Storm Sewer System (MS4)

An "MS4", as defined in 40 CFR 122.26(b)(8), "means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body...that discharges into waters of the United States; (ii) Designed or used for collecting or conveying stormwater; (iii) Which is not a combined sewer; **AND** (iv) Which is not part of a Publicly Owned Treatment Works."

STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

Pollutant

Pollutant is defined at R18-9-A901(22). A partial listing from this definition includes: dredged spoil, solid waste, sewage, garbage, sewage sludge, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial or municipal waste.

Regulated Small MS4

Not all small MS4s are subject to the Phase II stormwater regulations. To be required to obtain a NPDES stormwater permit, a small MS4 must be a “regulated small MS4”. There are two ways a facility can be considered a regulated small MS4: if the facility is automatically designated or if the NPDES permitting authority determines that the facility is regulated. In the latter case, the facility is notified by the NPDES permitting authority that the facility is regulated. Per 40 CFR 122.32(a), a small MS4 is *regulated* if it:

1. Is located in an urbanized area (UA) as determined by the latest decennial census (refer to <http://cfpub.epa.gov/npdes/stormwater/urbanmaps.cfm> for urbanized area boundary maps, as determined in the 2000 census) (e.g., the facility is an automatically-designated MS4); **OR**
2. Is located outside of a UA and contributes to the pollutant loadings of a physically interconnected MS4 regulated by the NPDES stormwater program (e.g., NPDES permitting authority-designated regulated small MS4); **OR**
3. Is located outside of a UA if the NPDES permitting authority determines that its discharges cause or may cause an adverse impact on water quality (e.g., NPDES permitting authority-designated regulated small MS4).

Small MS4

A “*small MS4*” is defined in 40 CFR 122.26(b)(16) as a separate storm sewer system that is:

1. Owned and operated by a public body with jurisdiction over stormwater, sewage, or other wastes; **AND**
2. Not designated as large (serves a population of 250,000 or more) or medium (serves a population of at least 100,000 but less than 250,000) in size.

Stormwater

Stormwater runoff, snow melt runoff, surface runoff and drainage.

Stormwater Management Program (SWMP)

A comprehensive program to manage the quality of stormwater discharges from the municipal separate storm sewer system.

Urbanized Area

The U.S. Bureau of the Census’ general definition of a UA, based on population and population density, is a land area comprising one or more places – central place(s) – and the adjacent densely settled surrounding area – urban fringe – that together have a residential population of at least 50,000 and an overall population density of at least 1,000 people per square mile. A UA can comprise places, counties, Federal Indian Reservations, and minor civil divisions such as towns and townships.

STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

Appendix B: NOI for Coverage under AZPDES Permit No. AZG2021-002

STORMWATER MANAGEMENT PLAN
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STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

Appendix C: AZPDES General Permit for Discharge from Small MS4s to Waters of the United States (Permit No. AZG2021-002)

STORMWATER MANAGEMENT PLAN
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Appendix D: Annual Report Submittals

STORMWATER MANAGEMENT PLAN
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**STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona**

Appendix E: Quarterly Visual Inspections

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Appendix F: Storm Sewer System Map

STORMWATER MANAGEMENT PLAN
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STORMWATER MANAGEMENT PLAN
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**APPENDIX G: PUBLIC EDUCATION AND
OUTREACH BROCHURES**

STORMWATER MANAGEMENT PLAN
Luke Air Force Base, Arizona

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APPENDIX H: LAFB Shops
Quarterly Visual Inspections

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**APPENDIX I: OUTFALL INSPECTION
FORM**

STORMWATER MANAGEMENT PLAN
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**APPENDIX J: POTENTIAL SW
POLLUTANTS**

STORMWATER MANAGEMENT PLAN
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**APPENDIX K: SPILL PREVENTION
PLAN**

STORMWATER MANAGEMENT PLAN
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APPENDIX L: BMP's

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**ARIZONA DEPARTMENT
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AZPDES SMALL MS4 ANNUAL REPORT

LTF ID #: 92261

Report #: 93613

Phoenix Office

1110 W. Washington Street . Phoenix, AZ 85007
(602)771-2300

Southern Regional Office

400 W. Congress Street . Suite 433 . Tucson, AZ 85701
(520)628-6733

www.azdeq.gov

AZPDES SMALL MS4 ANNUAL REPORT - SUMMARY

Company:

Name: USAF - LUKE AFB 56 CES/CEV

Question: Which permit/registration/certificate is this report for?

Answer: 07/01/2022 - 06/30/2023

Question: Did you assess and evaluate the Stormwater Management Program (SWMP) as part of preparing the Annual Report, per permit Section 4.0?

Answer: Yes

Question: Did you have another entity implement control measures on behalf of the MS4 per permit Section 6.0(2)? If Yes, identify the entity and give a brief explanation of their involvement.

Answer: No

Question: Did you provide outreach and education to the public on the stormwater program issues and requirements, per permit Section 6.1(1)?

Answer: Yes

Identify the target group for outreach and education:

General Public

Identify the topic(s) for the target group:

Illicit discharges and illegal dumping, proper management of non-stormwater discharges, and to provide information on reporting spills, dumping, and illicit discharges

Describe how the message was conveyed to the target group:

Information was emailed to all of the Facility Managers on Base.

Describe measures/methods used to assess the effectiveness of the message conveyed to the target group:

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The goal was to provide the education annually and this was accomplished on 16 August 2022.

Question: Did you provide outreach and education to the public on the stormwater program issues and requirements, per permit Section 6.1(2)?

Answer: Yes

Identify the target group for outreach and education:

Targeted Sources or Types of Businesses (industrial or commercial)

Identify the topic(s) for the target group:

Stormwater management practices, pollution prevention plans, and facility maintenance procedures

Describe how the message was conveyed to the target group:

An email with the information was sent to all Facility Managers on Base.

Describe measures/methods used to assess the effectiveness of the message conveyed to the target group:

The goal was to send one email per quarter to educate Facility Managers. This was achieved by emails on 16 Aug 2022, 14 Dec 2022, 24 Mar 2023, and 26 Jun 2023.

Question: Did you post the SWMP and the current Annual Report on your website, per permit Section 6.2(1)?

Answer: Yes

Upload the SWMP.

File Name: 2023 SWMP - Luke AFB.docx

Question: Did you provide and publicize a reporting system to facilitate and track public reporting of spills, discharges and/or dumping to the MS4 on a continuous basis, per permit Section 6.2(4)?

Answer: Yes

Question: Provide a narrative description of the status of the storm sewer mapping, per permit Section 6.3(1).

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Answer: Luke's storm sewer system is completely mapped in our GIS system. The mapping includes roads, buildings, curbs, gutters, inlets, ditches, culverts, the location of outfalls, and protected waters.

Question: Did you establish an ordinance or other regulatory mechanism for enforcement procedures of the Illicit Discharge Detection & Elimination (IDDE) Program, per permit Section 6.3(2)?

Answer: Yes

What is the citation of the ordinance or other regulatory mechanism to prohibit non-stormwater discharges into the MS4?

The authority to implement the IDDE program at Luke is established by AFMAN 32-1067 and AFD 32-70.

Question: Did you establish or update the Statement of IDDE Program Responsibilities, per permit Section 6.3(3)?

Answer: Yes

Provide IDDE activities in a tabular format, per permit Section 6.3(4).

File Name: MS4_IDDE_Reporting_Luke AFB.xlsx

Question: Did you visually monitor at least 20% of all outfalls during the permit year, per permit Section 6.3(7)?

Answer: Yes

Question: Did you identify indicators of IDDE Program progress or success, per permit Section 6.3(8)?

Answer: Yes

Question: Did you provide annual staff training, per permit Section 6.3(9)?

Answer: Yes

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How many staff attended?: 69

What was the topic?: IDDE program information, to include not causing illicit discharges, recognizing illicit discharges, and how to report illicit discharges was sent by email to all of the Facility Managers on Base.

Question: Did you establish an ordinance or other regulatory mechanism for enforcement procedures of the Construction Activity Stormwater Runoff Control Program, per permit Section 6.4(2)(a)?

Answer: Yes

What is the citation of the ordinance or other regulatory mechanism to prohibit non-stormwater discharges into the MS4?

Air Force Manual (AFMAN) 32-1067 Water and Fuel Systems and Air Force Policy Directive (AFPD) 32-70 Environmental Quality.

Question: Did you implement a construction site inventory, per permit Section 6.4(2)(b)?

Answer: Yes

Question: Did you develop written procedures for site plan review, per permit Section 6.4(2)(c)?

Answer: Yes

Question: Did you implement written procedures for site inspections and enforcement control measures, per permit Section 6.4(2)(f)?

Answer: Yes

How many construction site inspections were done?: 0

How many follow-up actions were necessary (re-inspection, enforcement actions)?: 0

Question: Did you develop and implement an educational program focused on erosion and sediment control for construction operators, per permit Section 6.4(2)(h)?

Answer: Yes

Question: Did you develop and implement a program requiring construction operators to control wastes from their sites, per permit Section 6.4(2)(i)?

Answer: Yes

Question: Did you implement procedures to receive and act on information submitted by the public (complaints), per permit Section 6.4(4)?

Answer: Yes

Question: Did you implement a program that includes a combination of structural and non-structural BMPs, per permit Section 6.5(1)?

Answer: Yes

Question: Did you establish an ordinance or other regulatory mechanism for enforcement procedures of the Post-Construction Stormwater Management, per permit Section 6.5(2)?

Answer: Yes

What is the citation for the ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects?

The mechanism for enforcement procedures is established by AFMAN 32-1067 and AFD 32-70 Environmental Quality.

Question: Did you implement a program to prevent or minimize impacts to water quality from stormwater runoff of new development and redevelopment sites, per permit Section 6.5(2)?

Answer: Yes

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Question: Did you implement procedures for site plan review, per permit Section 6.5(3)?

Answer: Yes

Question: Did you implement an inventory of post construction site structural stormwater control measures installed within the MS4, per permit Section 6.5(4)?

Answer: Yes

Question: Did you implement a program to ensure the long-term operation and maintenance of post construction BMPs, per permit Section 6.5(5)?

Answer: Yes

Question: Did you implement a program to reduce or eliminate discharges of pollutants from municipal streets, facilities, yards, etc., per permit Section 6.6(1)?

Answer: Yes

Question: Did you implement a program to ensure the long-term operation and maintenance of stormwater BMPs, per permit Section 6.6(2)?

Answer: Yes

Question: Did you develop an inventory of facilities, prioritized based on their risk of discharging non-stormwater, per permit Section 6.6(2)(a)?

Answer: Yes

Question: Did you implement an inspection schedule for prioritized facilities, per permit Section 6.6(2)(c)?

Answer: Yes

Question: Did you implement an annual training program for staff that incorporates pollution prevention and good housekeeping techniques, per permit Section 6.6(2)(f)?

Answer: Yes

How many staff attended?: 69

What was the topic?: Pollution prevention while performing operations and maintenance activities.

Question: Did you develop maintenance activities, schedules and long-term inspections to reduce floatables, trash and other pollutants from the MS4, per permit Section 6.6(2)(g)?

Answer: Yes

Question: Does the MS4 discharge to a not-attaining water, impaired water, or an Outstanding Arizona Water (OAW)?

Answer: No

CERTIFICATION OF SUBMISSION

SCOTT MENDENHALL

You validated your identity by answering your personal security question and password on myDEQ at **01:28 PM** on **09/27/2023**. At this time, you certified the summary information above by checking that you agreed to the following statement:

Certify your submission:

By checking this box I certify under penalty of law that this submittal was prepared by me, or under my direction or supervision of personnel appropriately qualified to properly gather and evaluate the information submitted. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I understand that all information submitted to ADEQ is public record unless otherwise identified by law as confidential. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

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**ARIZONA DEPARTMENT
OF
ENVIRONMENTAL QUALITY**



AZPDES SMALL MS4 ANNUAL REPORT

LTF ID #: 92261

Report #: 72779

Phoenix Office

1110 W. Washington Street . Phoenix, AZ 85007
(602)771-2300

Southern Regional Office

400 W. Congress Street . Suite 433 . Tucson, AZ 85701
(520)628-6733

www.azdeq.gov

AZPDES SMALL MS4 ANNUAL REPORT - SUMMARY

Company:

Name: USAF - LUKE AFB 56 CES/CEV

Question: Which permit/registration/certificate is this report for?

Answer: 12/23/2021 - 06/30/2022

Question: Did you assess and evaluate the Stormwater Management Program (SWMP) as part of preparing the Annual Report, per permit Section 4.0?

Answer: Yes

Question: Did you have another entity implement control measures on behalf of the MS4 per permit Section 6.0(2)? If Yes, identify the entity and give a brief explanation of their involvement.

Answer: No

Question: Did you provide outreach and education to the public on the stormwater program issues and requirements, per permit Section 6.1(1)?

Answer: Yes

Identify the target group for outreach and education:

General Public

Identify the topic(s) for the target group:

Illicit discharges and illegal dumping, proper management of non-stormwater discharges, and to provide information on reporting spills, dumping, and illicit discharges

Describe how the message was conveyed to the target group:

Information was emailed to all of the Facility Managers on Base.

Describe measures/methods used to assess the effectiveness of the message conveyed to the target group:

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The goal was to provide the education annually, and this was accomplished on 22 Sep 2021.

Question: Did you provide outreach and education to the public on the stormwater program issues and requirements, per permit Section 6.1(2)?

Answer: Yes

Identify the target group for outreach and education:

Targeted Sources or Types of Businesses (industrial or commercial)

Identify the topic(s) for the target group:

Stormwater management practices, pollution prevention plans, and facility maintenance procedures

Describe how the message was conveyed to the target group:

An email was sent to all of the Facility Managers on Base.

Describe measures/methods used to assess the effectiveness of the message conveyed to the target group:

The goal was to send one email per quarter to educate the facility managers. This was achieved by emails on 23 Sep 2021, 30 Nov 2021, 23 Feb 2022, and 8 June 2022.

Question: Did you post the SWMP and the current Annual Report on your website, per permit Section 6.2(1)?

Answer: Yes

Upload the SWMP.

File Name: 2021 SWMP - Luke AFB.docx

Question: Did you provide and publicize a reporting system to facilitate and track public reporting of spills, discharges and/or dumping to the MS4 on a continuous basis, per permit Section 6.2(4)?

Answer: Yes

Question: Provide a narrative description of the status of the storm sewer mapping, per permit Section 6.3(1).

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Answer: Luke's storm sewer system is completely mapped in Luke's GIS system. The mapping includes roads, buildings, curbs, gutters, inlets, ditches, culverts, the location of outfalls and monitoring points, and protected waters.

Question: Did you establish an ordinance or other regulatory mechanism for enforcement procedures of the Illicit Discharge Detection & Elimination (IDDE) Program, per permit Section 6.3(2)?

Answer: Yes

What is the citation of the ordinance or other regulatory mechanism to prohibit non-stormwater discharges into the MS4?

The authority to implement the IDDE program is established by Air Force Manual (AFMAN) 32-1067 Water and Fuel Systems, AFI 32-7045 ECAMP, and Air Force Policy Directive (AFPD) 32-70 Environmental Quality.

Question: Did you establish or update the Statement of IDDE Program Responsibilities, per permit Section 6.3(3)?

Answer: Yes

Provide IDDE activities in a tabular format, per permit Section 6.3(4).

File Name: MS4_IDDE_Reporting_Luke AFB.xlsx

Question: Did you visually monitor at least 20% of all outfalls during the permit year, per permit Section 6.3(7)?

Answer: Yes

Question: Did you identify indicators of IDDE Program progress or success, per permit Section 6.3(8)?

Answer: Yes

Question: Did you provide annual staff training, per permit Section 6.3(9)?

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Answer: Yes

How many staff attended?: 300

What was the topic?: IDDE program information, to include not causing illicit discharges, recognizing illicit discharges, and how to report illicit discharges, sent by email.

Question: Did you establish an ordinance or other regulatory mechanism for enforcement procedures of the Construction Activity Stormwater Runoff Control Program, per permit Section 6.4(2)(a)?

Answer: Yes

What is the citation of the ordinance or other regulatory mechanism to prohibit non-stormwater discharges into the MS4?

The authority to prohibit non-stormwater discharges into the MS4 is established by Air Force Manual (AFMAN) 32-1067 Water and Fuel Systems, AFI 32-7045 ECAMP, and Air Force Policy Directive (AFPD) 32-70 Environmental Quality.

Question: Did you implement a construction site inventory, per permit Section 6.4(2)(b)?

Answer: Yes

Question: Did you develop written procedures for site plan review, per permit Section 6.4(2)(c)?

Answer: Yes

Question: Did you implement written procedures for site inspections and enforcement control measures, per permit Section 6.4(2)(f)?

Answer: Yes

How many construction site inspections were done?: 1

How many follow-up actions were necessary (re-inspection, enforcement actions)?: 0

Question: Did you develop and implement an educational program focused on erosion and sediment control for construction operators, per permit Section 6.4(2)(h)?

Answer: Yes

Question: Did you develop and implement a program requiring construction operators to control wastes from their sites, per permit Section 6.4(2)(i)?

Answer: Yes

Question: Did you implement procedures to receive and act on information submitted by the public (complaints), per permit Section 6.4(4)?

Answer: Yes

Question: Did you implement a program that includes a combination of structural and non-structural BMPs, per permit Section 6.5(1)?

Answer: Yes

Question: Did you establish an ordinance or other regulatory mechanism for enforcement procedures of the Post-Construction Stormwater Management, per permit Section 6.5(2)?

Answer: Yes

What is the citation for the ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects?

The authority to address post-construction runoff from new development and redevelopment projects is established by Air Force Manual (AFMAN) 32-1067 Water and Fuel Systems, AFI 32-7045 ECAMP, and Air Force Policy Directive (AFPD) 32-70 Environmental Quality.

Question: Did you implement a program to prevent or minimize impacts to water quality from stormwater runoff of new development and redevelopment sites, per

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permit Section 6.5(2)?

Answer: Yes

Question: Did you implement procedures for site plan review, per permit Section 6.5(3)?

Answer: Yes

Question: Did you implement an inventory of post construction site structural stormwater control measures installed within the MS4, per permit Section 6.5(4)?

Answer: Yes

Question: Did you implement a program to ensure the long-term operation and maintenance of post construction BMPs, per permit Section 6.5(5)?

Answer: Yes

Question: Did you implement a program to reduce or eliminate discharges of pollutants from municipal streets, facilities, yards, etc., per permit Section 6.6(1)?

Answer: Yes

Question: Did you implement a program to ensure the long-term operation and maintenance of stormwater BMPs, per permit Section 6.6(2)?

Answer: Yes

Question: Did you develop an inventory of facilities, prioritized based on their risk of discharging non-stormwater, per permit Section 6.6(2)(a)?

Answer: Yes

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Question: Did you implement an inspection schedule for prioritized facilities, per permit Section 6.6(2)(c)?

Answer: Yes

Question: Did you implement an annual training program for staff that incorporates pollution prevention and good housekeeping techniques, per permit Section 6.6(2)(f)?

Answer: Yes

How many staff attended?: 300

What was the topic?: Pollution prevention in everyday operations and maintenance activities.

Question: Did you develop maintenance activities, schedules and long-term inspections to reduce floatables, trash and other pollutants from the MS4, per permit Section 6.6(2)(g)?

Answer: Yes

Question: Does the MS4 discharge to a not-attaining water, impaired water, or an Outstanding Arizona Water (OAW)?

Answer: No

CERTIFICATION OF SUBMISSION

CHALRES J ROTHROCK

You validated your identity by answering your personal security question and password on myDEQ at **07:42 AM** on **09/19/2022**. At this time, you certified the summary information above by checking that you agreed to the following statement:

Pursuant to A.R.S. § 41-1030:

(1) ADEQ shall not base a licensing decision, in whole or in part, on a requirement or condition not specifically authorized by statute or rule. General authority in a statute does not authorize a requirement or condition unless a rule is made pursuant to it that specifically authorizes the requirement or condition.

(2) Prohibited licensing decisions may be challenged in a private civil action. Relief may be awarded to the prevailing party against ADEQ, including reasonable attorney fees, damages, and all fees associated with the license application.

(3) ADEQ employees may not intentionally or knowingly violate the requirement for specific licensing authority. Violation is cause for disciplinary action or dismissal, pursuant to ADEQ's adopted personnel policy. ADEQ employees are still afforded the immunity in A.R.S. §§ 12-821.01 and 12-820.02.

Certify your submission:

By checking this box I certify under penalty of law that this submittal was prepared by me, or under my direction or supervision of personnel appropriately qualified to properly gather and evaluate the information submitted. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I understand that all information submitted to ADEQ is public record unless otherwise identified by law as confidential. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

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