

MCHB-PH-WTR _____

MEMORANDUM FOR Fort Sill (Sill Environmental Office/DPW/EQD Mr. Scott Sherman),
Building 2515 Ringgold Road, Fort Sill, OK 73503-5100

SUBJECT: Storm Water Project No. S.0040219.2-16, Fort Sill Phase II Storm Water
Management Plan

1. Enclosed is a copy of the subject document.
2. To ensure quality service, please complete the Client Satisfaction Survey at:
<https://usaphcapps.amedd.army.mil/Survey/se.ashx?s=25113745052C38DC>

For Question 1 "Directorate/Division," please indicate:

_____ Directorate: Environmental Health

_____ Division: Water Resources

For Question 2 "Type of product or service received," please indicate:

_____ Technical or Surveillance Report

3. Address any questions or comments to Ms. Wendy B. Mervine at (410) 436-8237,
DSN 584-8237 or wendy.b.mervine.civ@mail.mil

Encl _____ KENT B. PRINN, P.E.
_____ Division Chief
_____ Water Resources

TABLE OF CONTENTS

Storm Water Management Plan Certification.....ii

Section	Page
1.0 Introduction	1
1.1 Regulatory Background.....	1
1.2 Installation Mission and Site Description	2
1.3 Privatization of Housing, Lodging, and Utilities	2
1.4 Annual Reports.....	2
1.5 Discharges Into Water Quality Impaired Waters	3
1.6 Eligibility Criteria for Endangered Species	4
2.0 Public Education and Outreach	4
3.0 Public Participation and Involvement	7
4.0 Illicit Discharge Detection and Elimination	9
5.0 Construction Site Stormwater Runoff Control	13
6.0 Post Construction Management in New Development/Redevelopment	16
7.0 Pollution Prevention/Good Housekeeping for MS4 Operations.....	17
8.0 Recordkeeping	21

APPENDICES

1.0 INTRODUCTION**1.1 REGULATORY BACKGROUND**

Phase I of the U.S. Environmental Protection Agency's (USEPA) storm water program was promulgated in November 1990 under the Clean Water Act. Phase I relies on National Pollutant Discharge Elimination System (NPDES) permit coverage to address storm water runoff from: (1) "medium" and "large" municipal separate storm sewer systems (MS4s) generally serving populations of 100,000 or greater; (2) construction activity disturbing 5 acres of land or greater; and (3) eleven categories of industrial activity.

The Storm Water Phase 2 final rule (promulgated in 1999) requires NPDES permit coverage for all "small" MS4s, serving less than 100,000 people and located within a Bureau of Census-delineated urbanized area. An urbanized area is a central place (or places) and the adjacent densely settled surrounding territory, that together have a minimum residential population of 50,000 people and a minimum average density of 1,000 people per square mile. The purpose of the Phase II regulation is to provide a flexible approach for reducing environmental harm caused by storm water discharges from point sources that were not regulated under Phase I. The requirement to obtain an NPDES MS4 permit applies to owners and operators of municipal storm sewer systems within "urbanized areas" (UA) as defined by the U.S. Bureau of Census. Military installations, like Fort Sill, that have small separate storm sewer systems within a UA are considered to be small MS4s and must meet the requirements of this rule. Environmental compliance for Fort Sill falls under the purview of the Oklahoma Department of Environmental Quality (ODEQ). The cantonment area of Fort Sill is included within the Fort Sill, OK UA.

Operators of a small MS4 must design a program to reduce the discharge of the pollutants to the maximum extent practicable, protect water quality, and satisfy the appropriate water quality requirements of the Clean Water Act. Reducing discharges to the maximum extent practicable will require BMPs, a schedule of implementation for those BMPs, and measurable goals to satisfy the six MCMs listed in section 1.1. Fort Sill is authorized to discharge under the ODEQ Phase 2 Small MS4 General Permit OKR040040 (dated 1 November 2015) (see Appendix C).

In accordance with the permit, Fort Sill has prepared this storm water management plan (SWMP), which includes development and implementation of best management practices (BMPs) that reduce pollutants to the maximum extent practicable, protect water quality, and satisfy USEPA water quality criteria using each of the following minimum control measures (MCMs):

- 1) Public Education and Outreach,
- 2) Public Participation and Involvement,
- 3) Illicit Discharge Detection and Elimination,
- 4) Construction Site Stormwater Runoff Control,
- 5) Post-Construction Management in New Development and Redevelopment, and
- 6) Pollution Prevention/Good Housekeeping for MS4 Operations.

The NPDES Phase 2 rule addresses storm water discharges from construction activities that disturb greater than or equal to one acre of land. Construction activities at Fort Sill must comply with NPDES construction storm water permitting requirements. Construction projects disturbing greater than or equal to one acre will need to apply for a general construction permit (OKR10). Construction projects less than one acre will have to comply with MCM 4, Construction Site

Storm Water Runoff Control, and MCM 5, Post-Construction Site Storm Water Runoff Control. No Notice of Intent (NOI) to the ODEQ is required for projects less than one acre.

1.2 INSTALLATION MISSION AND SITE DESCRIPTION

Fort Sill is located about 90 miles southwest of Oklahoma City, Oklahoma, and consists of about 94,000 acres at the southeastern end of the Wichita Mountains. Approximately 6,000 acres of Fort Sill have been developed for use as the cantonment area. Much of the remaining land is comprised of rolling prairies with the northwest portion of the installation adjoining the 59,000 acre Wichita Mountain Wildlife Refuge (administered by the Department of the Interior).

The Installation is the home of the U.S. Army Fires Center of Excellence, an organization combining the U.S. Army Artillery Center and School and the U.S. Army Air Defense Artillery (ADA) Center and School. Principal operational units at Fort Sill include the 75th Fires Brigades, the 428th and 434th Field Artillery Brigades, and the 30th and 31st ADA Brigades. Fort Sill is also one of the five locations for Army Basic Combat Training. As the home of the U.S. Army Fires Center of Excellence, the Installation mission is to train soldiers and develop field artillery and ADA leaders, design and develop fire support for the force, support unit training and readiness, mobilize and deploy operating forces, and maintain Installation infrastructure and services.

1.2.1 DRAINAGE NETWORK

Storm water within the small MS4 runs off into 30 major outfalls that subsequently discharge to the following water bodies: Medicine Creek, Sitting Bear Creek, Wolf Creek, Mission Creek, and Cache Creek. See Appendix B for a site map of the storm water collection system.

1.3 PRIVATIZATION OF HOUSING, LODGING, AND UTILITIES

The following four privatized entities own, operate, and maintain privatized military family housing, Army lodging, and utilities on the installation: Corvias Military Housing (Corvias); the InterContinental Hotel Group (IHG); American Water Enterprises (AWE); Oklahoma Natural Gas Company (ONG). These entities inhabit the cantonment area and could significantly impact water quality.

Fort Sill does not have regulatory authority over these private organizations. Instead, Fort Sill uses the work orders and construction review processes to encourage their use of BMPs, Low Impact Development (LID), public participation, and good construction site and post construction storm water management. Fort Sill also includes these entities in public education and outreach and participation and involvement programs.

Corvias has its own individual SWMP that covers its facilities and infrastructure (see Appendix A). Fort Sill has reviewed and approved this plan. The Environmental Quality Division performs regular inspections and requests an annual report to help compile Fort Sill's annual report to ODEQ.

1.4 ANNUAL REPORTS

In accordance with the permit, EQD will conduct an annual review of the storm water management program and SWMP, and submit a report to ODEQ, with a target date of November each year. Annual storm water reports must be submitted to the ODEQ by the first day of March (if you implement your SWMP on a calendar year basis) and must include the following

information:

- Status of compliance with the permit, assessment of the appropriateness of BMPs, progress towards reducing the discharge of pollutants to the maximum extent practicable, and the measurable goal progress for each MCM.
- Progress toward achieving the goal of reducing the discharge of pollutants,
- Results of information collected and analyzed, if any, during the reporting period,
- Summary of the storm water activities planned for the next reporting cycle (including an implementation schedule),
- Proposed changes to the SWMP; including BMPs, MCMs, and measurable goals,
- Description and schedule of any BMPs or monitoring necessary to reduce discharges of pollutants into impaired waters in the 303(d) list or ensure compliance with an applicable TMDL;
- A copy of an agreement with any government agency that is being relied upon to satisfy some of the permit obligations.
- Corvias' SWMP

1.5 DISCHARGES INTO WATER QUALITY IMPAIRED WATERS

The 2014 303(d) list of Category 5 (impaired) waterbodies is found in Appendix C of the 2014 Integrated Report ("Water Quality in Oklahoma - 2014"). The 2014 303(d) list is considered the state's official list of impaired waters and was approved in 2016 USEPA Region 6. The 303(d) list includes all surface waters in the state for which beneficial uses of the water, such as for drinking, recreation, aquatic habitat, and industrial use, are impaired by pollutants. These are water quality limited estuaries, lakes, and streams that fall short of state surface water quality standards, and are not expected to improve within the next 2 years. A segment of East Cache Creek is listed in the 2014 Integrated Water Quality Assessment as an Impaired Water. Storm water discharges from the Fort Sill small MS4 (cantonment area) can contribute directly or indirectly to the 303(d) listed water body East Cache Creek. At this time, it does not appear that any storm water discharges from Fort Sill for this segment, is directly responsible for the impairment. The questionable discharge is from a motor pool and it is no longer in service as of 2016.

The Fort Sill small MS4 does not discharge into the impaired sections of these water bodies (or the waters have been recommended for delisting) in the 2014 Integrated Water Quality Assessment: Blue Beaver, Wolf Creek, Mission Creek, West Cache Creek, and Medicine Creek.

Table 1.1 lists the specific 303(d) listed water bodies as well as their status in the 303(d) list and their relationship to Fort Sill.

Table 1.1 303(d) List of Impaired Waters Bisecting Fort Sill

Waterbody ID	Waterbody Name/size	Impaired Use	Status In 2014 Integrated Water Quality Assessment
OK311300020010_10	Cache Creek, East; 17.08 mi	Enterococcus Dissolved oxygen Sulfates	This portion of East Cache Creek only receives storm water from one facility, Building 6115, Motor Pool Facility. This building is scheduled for demolition in the future. The BMPs employed by Fort Sill are considered sufficient to prevent further degradation of the water quality in this waterway.

*Recommended for delisting (TMDL completed).

Cantonment area BMPs will prevent runoff that contributes to exceedances of in-stream water quality standards. The sanitary sewer is privately owned/operated by American Water Enterprises (AWE). AWE is responsible for lift stations, improvements to the sewer system, reporting of violations and strengthening of controls. No on-site septic systems exist on the cantonment area.

Fort Sill's illicit discharge detection and elimination (IDDE) program will encourage the public to keep their drains clean of fats, oils, and grease to avoid clogging/overflowing the sewer. This will protect water quality by reducing the waste sources of sulfates, enterococcus, and dissolved oxygen. In addition, oil and grease interceptors are currently being tied into the sanitary sewer.

Animal sources of wastes include resident pets and the veterinary clinic dog pound. Residents and workers will be educated regarding pet wastes to prevent runoff from contaminating streams.

EQD will continue to monitor the 303(d) listed waters and total maximum daily loads (TMDLs) and update the SWMP as situations change.

1.6 ELIGIBILITY CRITERIA FOR ENDANGERED SPECIES

Fort Sill has developed and implemented an Endangered Species Management Plan (ESMP) that provides guidelines for maintaining and enhancing populations and habitats of the species, while maintaining mission readiness consistent with Federal, State, and Army regulations. The ESMP is available at the EDQ office. Since the Fort Sill small MS4 (cantonment area) is not located within an Aquatic Resource of Concern (ARC), but parts of the small MS4 provide habitat for the Black-capped vireo, a listed endangered species, the ESMP will be referenced for guidance in protecting its habitat.

The Fish and Wildlife Service has issued a Biological Opinion concluding that activities at Fort Sill are not likely to jeopardize the continued existence of the Black-capped vireo.

2.0 PUBLIC EDUCATION AND OUTREACH

This MCM seeks to educate Fort Sill's public about how their actions impact storm water runoff and provides guidance on steps and specific actions that should be taken to reduce storm water

pollution potential. Routine behaviors such as littering, waste disposal, vehicle washing, and auto maintenance have the potential to pollute storm water. Efforts to control storm water pollution should consider individual and public behaviors.

Information distribution, community outreach and scheduled meetings are means to raise the awareness of the public (onsite units, military personnel and residents, employees, tenants, contractors, and visitors) as to how their actions impact storm water runoff and water quality. This is accomplished with quarterly newspaper articles, brochures, the Directorate of Public Works (DPW) website, the Garrison Commander's (GC's) Facebook site, and the EQD environmental library. The public is free to contact the EQD office where they can access storm water issues, such as Phase 1 and 2 storm water compliance documents, guidance, and records during regular business hours at 2515 Ringgold Road on Fort Sill.

Fort Sill's Public Affairs Officer (PAO) offers expertise in working with a diverse audience in a timely manner and works with the EQD to plan and implement public outreach events.

Newspaper articles and announcements are published periodically in The Fort Sill Tribune, a weekly military newspaper at Fort Sill. In it, the public is informed of not only pertinent storm water news, but other environmental issues and related events.

The Fort Sill Garrison Commander holds monthly meetings of the Family and Community Team Session (SillFACTS) on-post, for the purpose of improving Fort Sill's quality of life and delivery of human services. All Garrison Directorates and support units, military leaders, residents, employees, Family Readiness Support assistants, the public, Lawton community leaders, are invited to the meetings. Information exchange at the meetings encourages interaction between Fort Sill units, directorates, and activities. A DPW representative addresses any storm water issues raised during the meetings, including current illicit discharge issues and incidents.

Effective public education and outreach leads to greater compliance and greater support for storm water programs. Outdated and ineffective messages and distribution methods should be corrected before the next scheduled message delivery. Corvias Military Housing (Corvias) provides services for all six MCMs. Their Storm Water Management Plan is incorporated into Fort Sill's MS4 plan (see Appendix D).

Corvias provides a monthly newsletter to each household via email. The newsletter is also available at its local office and on its website and contains information about storm water issue. Corvias also provides water quality brochures at two community activity centers. The brochures contain contact information for local EQD, include information about water quality and environmental compliance and other relevant issues, and are available to incoming and resident families on-post. The brochures include the effects of household activities on the environment, the impacts a family can have on water quality, explains point and nonpoint source discharges, and includes illicit discharges and preventative practices.

All employees that handle POL products receive a 40-hour Hazardous Waste Generator Course that has a 2 hour storm water management segment that covers BMPs, good housekeeping, spill response, compliance issues, and illicit discharges. EQD requires certain organizations and personnel to maintain certification with a mandatory 8-hour annual refresher course that includes a half hour dedicated to existing and new storm water issues.

Battery Commander/1st Sergeant Orientation. This is an informal question and answer session for new personnel at this level. EQD provides a 30 minute presentation to new personnel on all environmental programs that they will be responsible for. During this time, they are allowed to ask questions and given appropriate contact numbers to EQD staff.

Formal storm water training for the civilian and military population specifically emphasizes utilities, facilities, motor pool operations, and will focus on educating the public on illicit discharge identification and prevention. Table 2.1 lists the measurable goals and BMPs for this MCM.

Table 2.1. Public Education and Outreach Measurable Goals and BMPs

BMPs and Goals	Metric for Goal/Frequency of Actions	Department Responsible	Schedule
SillFACTS meetings	Hold one meeting each month, except for the months of July and December. Annually review participation at this meeting.	Garrison Commander (GC)/ Directorate of Public Works	28 th of each month Jan-Jun Aug-Nov
Publish storm water pollution prevention topics in the newspaper	Publish one article per year, or as needed. Storm water awareness articles will include topics ² such as trash/recycling; landscaping/lawn care; proper use of pesticides and fertilizers; proper storage and disposal of hazardous chemicals/waste; hazards associated with illegal discharges; pet waste; residential car washing; and water conservation.	Environmental Quality Division (EQD), Public Affairs Office (PAO)	30 Nov 2016 Annually
Distribute storm water awareness brochures	Reprint and distribute brochures, as needed. Topics include illicit discharges and preventative practices.	Corvias Military Housing (Corvias)	30 Dec 2016 Annually
Provide storm water updates via informational websites	Provide storm water updates regarding BMPs and illicit discharges to employees twice a year via email or through the Fort Sill website. At least one update will be distributed with a before/after survey in order to assess the education and outreach program effectiveness. Announce these updates in a newsletter or publication, so that employees and tenants without access to the Fort Sill intranet can also be informed of any illicit discharges.	EQD, PAO	1 Aug 2016 and 1 Dec 2016 Annually
Battery Commander/1 st Sergeant Orientation	Provide information on environmental programs and associate responsibilities and requirements for new commanders.	EQD	Quarterly
Garrison Commanders Facebook Page	Provide information on storm water management and solicit input from Fort Sill personnel and public	Periodically	As needed
Email correspondence	Distribute monthly newsletter to each household via email and on website	Corvias	1 Oct 2016, Annually

BMPs and Goals	Metric for Goal/Frequency of Actions	Department Responsible	Schedule
Environmental repository	Update environmental library as needed.	EQD	1 Oct 2016, as needed
Spill response training	Conduct annual spill response training and keep records of the training during post wide drills	SWPM	30 Oct 2016, Annually

3.0 PUBLIC PARTICIPATION AND INVOLVEMENT

It is important that onsite units, military personnel and residents, employees, tenants, contractors, industrial groups within the cantonment area, and individuals using the facilities are given an active role in the development and implementation of the storm water program. By organizing and empowering the public to participate in interactive programs and help spread the message, the overall ability of Fort Sill to prevent potential contaminants from entering storm water runoff is greatly enhanced. The work of a few individuals can have a significant effect on storm water management. If the many diverse user groups at Fort Sill take an active role in implementing storm water controls, then they are more likely to maintain and support the BMPs implemented. Individuals who are consulted before storm water controls are implemented are less likely to raise legal and public challenges. Informed and involved citizens are crucial towards preventing potential pollutants from entering the storm sewer system. Participation, partnership, and the combined efforts of Fort Sill's public working towards the same goal of preventing polluted storm water runoff is far more effective than if a single entity is responsible for achieving this goal. Employees can often spot and address potential problems long before an inspector might visit the area. Public participation will be encouraged through monthly SillFACTS meetings, an informational website, recycling programs, and training.

A Fort Sill intranet website has a feature used by the employees and residents to report potential polluters as well as provide input for the enforcement of local regulatory requirements. The Fort Sill public is also able to comment on the Interactive Customer Evaluation (ICE) system, which allows for commenting on actions of organizations and operations on-post and rate the performance and condition of organizations and facilities regarding environmental compliance.

The Fort Sill Hazardous materials collection center accepts and properly stores hazardous materials from industrial military and civilian operations. Residents are permitted to drop their hazardous wastes twice per year in spring and fall with 'no questions asked', which discourages illegal dumping. The EQD tracks all hazardous wastes from the date/point of turn-in until shipment off-post using a web-based management tool, HAZTRACKER. Recycling programs are coordinated between the DLA Disposition Services (DLADS) and the Directorate of Morale, Welfare, and Recreation (DMWR). The Fort Sill community reduces the waste stream by recycling plastics, paper, aluminum, surplus medical equipment, and electronic waste.

EQD will partner with Corvias and PAO to design and implement this MCM. All BMPs used for this MCM should be continually evaluated and revised as necessary. Outdated or ineffective participation events should be corrected before the next scheduled event. Table 3.1 lists the measurable goals and BMPs for this MCM.

Table 3.1. Public Participation and Involvement Measurable Goals and BMPs

BMPs and Goals	Metric for Goal	Department Responsible	Schedule
SillFACTS meetings	Hold monthly meetings, except for the months of July and December	Garrison Commander/DPW	28 th of each month Jan-Jun Aug-Nov
ICE comments	Address comments as they are encountered or any request made	EQD	As needed
Informal townhouse meetings	Commanders/Garrison meetings that are question and answer sessions on any military topic	PAO, Garrison Commander	Periodically
Garrison Commanders Facebook Page	Address comments/place storm water information as needed during storm events	EQD, PAO	As needed
Update informational website	Continuously, as needed	EQD, PAO	1 Aug 2016 and 1 Dec 2016 Annually
Recycling and hazardous waste collection programs	Update and improve as needed	EQD, Logistics Readiness Center (LRC), Defense Logistics Agency Disposition Services (DLADS), Directorate of Morale, Welfare, and Recreation (DMWR)	1 Sept 2016, as needed
Assess, review, and update this public participation program	Review the program within 1 year of the effective date of the permit plus annually thereafter, and revise the program where necessary.	SWPM	1 Nov 2016, Annually
Quarterly newsletter	Distribute storm water and educational information to the community	SWPM	1 Dec 2016, as needed
Public Notice Procedure Adherence	Fort Sill will follow all public notice requirements applicable to DoD facilities closed to the general public regarding public participation and involvement programs.	SWPM	30 Oct 2016

4.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION

The objective of this MCM is to prevent, detect and eliminate illicit discharges to Fort Sill's storm sewer system. Illicit discharges are those that are not made up entirely of storm water and which are not otherwise allowed. Examples of illicit discharges are domestic and industrial wastewater (cross-connections), improper oil disposal, radiator flushing disposal, laundry wastewaters, spills from roadway accidents, improper disposal of automobile and

household-type toxics, and paint. Allowable non-storm water discharges include:

- uncontaminated drip pan water
- windblown mist from cooling towers
- uncontaminated groundwater from utility repairs
- discharges from water used in dust control
- NPDES permitted discharges
- uncontaminated military tent rinsing water without detergents
- discharges or flows from emergency firefighting activities if measures are taken to reduce any such pollutant releases to avoid or minimize impacts on water quality
- fire hydrant and fire suppression systems that strictly use water, no chemicals.
- dechlorinated water line flushing
- landscape irrigation
- diverted stream flows
- rising ground waters
- uncontaminated ground water infiltration
- uncontaminated pumped ground water
- uncontaminated collected rainwater pumped from culverts/manholes
- discharge from potable water sources to include drinking water fountains
- foundation or footing drains where flows are not contaminated with process materials such as solvents
- air conditioner condensate
- springs
- uncontaminated water from crawl space pumps
- lawn watering
- flows from riparian habitats and wetlands
- dechlorinated swimming pool discharges
- street wash water
- residential building wash water without detergents or lead paint residues
- irrigation water
- individual residential car washing
- discharges of gray water from municipal splash pads (spray parks)
- groundwater or rain water collected as a result of utility repairs provided no contaminants are present.

No controls or conditions are enforced on any of these allowable non-stormwater discharges unless it is determined they cause a significant risk to storm water drainage systems. For discharges from fire-fighting activities, the Fire Chief or Incident Commander will evaluate the discharge situation and apply measures to reduce pollutant discharges to the maximum extent possible. The Fire Chief or Incident Commander are in charge of fire-fighter training to prevent releases during fire-fighting activities, and the EQD may be called upon to assist during fire-related cleanup activities.

As part of the Phase 1 ODEQ Multi-Sector Industrial General Permit (OKR05), EQD performs quarterly visual monitoring of its industrial outfalls (color, sheen, odor, turbidity, solids, and foam). In addition, runoff from the landfill is analyzed. No additional sampling is required for the Phase 2 SWMP. Results of the Phase 1 monitoring are included in the Phase 2 Annual Report.

Public Education and Outreach is primarily used for satisfying illicit discharge educational outreach requirements. Public education and outreach BMPs will educate the diverse population on Fort Sill about the storm sewer system, storm water runoff, and hazards

associated with illegal discharges, spills, and the improper disposal of waste. Information in outreach materials will be catered to specific audiences, depending on subject applicability.

Specific illicit discharge identification and prevention training has been developed and implemented for the military and civilian population, and is especially weighted towards motor pools, facilities, and utility operations. In addition, trained EQD personnel perform daily drive-by inspections on-post. SillFACTS meetings include a segment on illicit discharges. Also, illicit discharge information and preventative practices are included in a brochure distributed by Corvias.

An important step in managing and preventing illicit discharges is to maintain an up-to-date, comprehensive understanding of the existing storm water drainage system. AWE completed an inflow/infiltration study during FY14. AWE monitors the water system daily and can recognize major changes in effluents. Repairs are being completed as a result of this study as funds become available. Future IDDE measures include a storm sewer mapping system and reporting system for the public. The Spill Prevention and Control Countermeasures Plan (SPCCP) is also constantly updated and reviewed at each location.

Detection will focus on the continued development and use of a comprehensive geographic information system (GIS) mapping database of the cantonment area, which is maintained on the Fort Sill intranet. The system maps the storm water collection utilities (ditches, piping, swales, retention basins, and storm drains), receiving waters, watersheds, and Phase 2 outfalls, which are field verified with global positioning system (gps) units. Features such as land use, geology, and water quality information will be added in the future. EQD uses the system to review potential cross connections and illegal discharge points.

The 30 outfall points associated with the small MS4 are visually inspected semi-annually. Quarterly visual observations during rainfall events are documented for color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other visual indicators of pollution. Records of these inspections are maintained in the EQD.

Fort Sill has adopted Army Regulation (AR) 200-1 as the guidance document for compliance with environmental regulations. See Appendix E for AR 200-1. This regulation prohibits illegal discharges to the storm sewer and riparian habitats. The AR 200-1 and the ODEQ Phase 2 Small MS4 General Permit (OKR04) both establishes the illicit discharge detection and elimination program with authority to prohibit illicit discharges, identify and investigate suspected illicit discharges, eliminate illicit discharges, and enforce penalties for violations. Violations are reported to the EQD by phone or email and filed in the environmental repository. Enforcement will include a progressive system of notices, warnings, and fines. EQD has established protocols and continues to monitor operations by privately owned entities on-post, but does not have the authority to regulate such operations. The private companies are responsible for storm water discharges affected by and within their own areas.

Fort Sill EQD will use the SPCCP to locate and eliminate illicit discharges and address material spills. A copy of the most recent SPCCP is located at each potential hazardous source. Activities that have the potential to contribute illicit discharges to the MS4 will be identified by environmental personnel, or other qualified personnel. The focus will be on installation activities and infrastructure that are relevant to ODEQ's common illicit discharge sources, including oil/water separators (OWS), vehicle wash facilities, and significant spill locations. Inspections and preventive maintenance will reduce the likelihood of problems originating from these areas. Employees will be encouraged to report problem areas, illegal dumping, or sources of illicit discharge, if and when discovered. Fort Sill will investigate all reports and address each case accordingly. If a prohibited discharge is detected, then Fort Sill will eliminate, control, or contain

the discharge. Illicit dry weather discharges will be eliminated through the control and removal of source equipment and processes, repairing service connections, or diverting flows into the proper treatment system. The environmental office should document any and all actions taken to correct illicit discharges. Coordination with utility operators, public education, reporting, remediation, and EQD's Phase 1 dry weather monitoring help ensure that illicit discharges are eliminated. No on-site sewage disposal system flows into the stormwater system in the cantonment area. Because of the usual dry weather at Fort Sill, illicit discharges are normally identified quickly through our constant drive-by informal inspections.

Dry weather inspections will be the proactive BMP for addressing potential sources of illicit discharges. The Fort Sill SWPM, or other qualified personnel, will conduct dry weather inspections of the potential problem areas annually to identify and investigate any illicit, inappropriate, or undocumented non-storm water discharges to the storm sewer system. All inspection results will be documented, and necessary action items will be addressed as explained below.

If an illicit discharge is discovered, the source will be identified and documented. Visual monitoring of the outfalls is expected to be an effective, ongoing strategy for discovering illicit discharges. Locating the source will be attempted first. If and where necessary, the following techniques may be used, and some are currently being used by AWE, to isolate the source of illicit discharges:

- Dye or smoke tracer testing
- Visual or video-assisted sewer system inspections
- Sanitary/storm sewer surveys
- Ensuring proper connections (of OWS, drains, and sewers)
- Sampling
- Manhole Inspections

Once an illicit discharge has been discovered and documented, Fort Sill will take proper action either in-house or through AWE, to identify the source and eliminate the discharge. Fort Sill Environmental Personnel will review new construction designs to ensure they adhere to all current applicable design protocols and regulatory requirements. Proper construction and industrial BMPs will be designed and implemented for applicable projects to ensure illicit discharges are prevented whenever possible. The program will be evaluated and the appropriateness of BMPs will be assessed during regular compliance assessments.

While personnel involved in most activities on installation are trained or otherwise informed regarding illicit discharges, there may be some who are not, such as new employees. Implementation of the IDDE plan must reach employees in the cantonment area to prove effective. The BMPs to address this MCM have been tailored to ensure all installation occupants are informed of their roles and responsibilities in preventing the discharge of contaminants to the MS4.

The appropriateness of all BMPs used for this MCM should be continually evaluated, revised as necessary, and documented annually. Outdated or ineffective participation events should be corrected before the next scheduled event. Table 4.1 lists the measurable goals and BMPs for this MCM, including IDDE measures already implemented on Fort Sill as well as new measures that will be implemented in the future.

Table 4.1 Illicit Discharge Detection and Elimination Measurable Goals and BMPs

BMPs and Goals	Metric for Goal	Department Responsible	Schedule
Maintain/update SPCCP	Maintain and update SPCCP. Include locations of all pollution sources	SWPM	30 Oct 2016
Conduct dry weather screenings	Inventory at least 25% of the outfalls per year starting in year 2. Record any degradation or maintenance necessary for each outfall.	SWPM	1 Aug 2017, annually
Conduct initial non-stormwater discharge (NSWD) certifications/ inspections of Phase 2 stormwater outfalls during dry weather	Conduct initial NSWD certifications of all outfalls and recertify when conditions change	EQD	30 Oct 2016, and as needed
Inspect for illicit non-stormwater discharges (NSWDs) upon change in conditions and drive-by inspections.	Conduct drive by inspections quarterly. Inspect for NSWDs as needed.	EQD, Privatized Initiative (PI)	30 Oct 2016, quarterly
Update environmental repository to show illicit discharge violations from previous year	Update environmental repository annually	EQD	30 Oct 2016, annually
Eliminate illicit discharges and connections by tracing the source	Whenever a suspected illicit discharge is present, dye tracer tests, smoke tests, camera inspections, sampling, or visual verification upstream of the discharge will be employed until the source is detected and eliminated.	EQD, American Water Enterprises (AWE)	Continually, as needed
Survey Storm Sewer System and update geographic information system (GIS) database	Update the GIS database system to include outfalls and the local waterbodies to which they discharge. Update regularly at the completion of construction projects, and as otherwise needed.	EQD, DPW	30 Jan 2017, as needed
Continue visual/analytical monitoring at Phase 1 industrial outfalls as required.	Phase 1 quarterly visual monitoring/annual analytical monitoring results are maintained in EQD's environmental repository and are included in the Annual Report.	EQD	Quarterly & annually
Continue Phase 1 monitoring of the landfill runoff.	Phase 1 landfill monitoring results are maintained/available in EQD's environmental repository and are included in the Annual Report.	EQD	As required

5.0 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

The purpose of this MCM is to develop, implement, and enforce a program to minimize erosion, retain sediment onsite, and manage storm water discharges so they do not cause or contribute to violations of applicable water quality standards. Controlling sediment discharges and reducing off-site tracking can help preserve surface water quality. Improving erosion control measures can decrease common sources of sediment in runoff. This section describes measures that Fort Sill has implemented and will implement to address sediment and other pollutants potentially running off construction sites.

Quality assurance personnel from the CORP of Engineers, DPW Construction Branch, and DPW Facility Maintenance inspect construction activity weekly to assure contract requirements are met. DPW-EQD assists QA personnel conducting periodic quality control inspections and final stabilization inspections. Inspections are prioritized based on locations of sites and water bodies, past violations, acreage, and the nature of operations. Non-compliance documented by QA representatives is referred to Contracting officers for resolution. Failure to resolve can lead to a bad contractor performance rating and inability to secure future government contracts.

Control measures already in place at Fort Sill include project notifications and plans in which the Storm Water Program Manager (SWPM) must be notified of new construction and maintenance projects before the start of construction. All construction plans (regardless of size or impact) are routed for review by the SWPM prior to the contract going out for bid, which allows the projects to be considered for water quality impact and all construction projects are reviewed by EQD through the NEPA process. If the projects are small and do not require a design, a list of required BMPs is provided to the project proponent via a Record of Environmental Consideration (REC). The duration of each construction project is monitored to ensure compliance with storm water regulations.

Pre-construction site plan reviews of all projects equal to 1 acre and greater will help ensure compliance with storm water rules. The Command Policy will reinforce the regulatory framework, requirements, and guidance for a contractor/operator to comply with all storm water regulations for construction activity. The Command Policy will be provided to every construction site contractor/operator contracted to work on Fort Sill. Contractors/operators will be able to read about the plan review process to plan measures to be incorporated into their designs. The Command Policy will reinforce procedures for the submission and review of construction site plans. Standard language will be developed and incorporated into all construction contracts on Fort Sill requiring all contractors/operators to submit their plans to the Environmental Office with enough lead time for necessary changes to be made prior to work commencing. Identifying and addressing potential water quality impacts ahead of time is expected to result in more effective project management for both Fort Sill and the contractor/operator. Site plan review will include erosion and sediment control selection; storm water management control selection; proximity of site to surface water features and contaminated sites; locations of storm water controls on the site map; management strategy for construction waste; prevention/management of off-site tracking; inspection and BMP maintenance plans; and final stabilization measures. The EQD will be in charge of inspecting applicable sites initially, followed by once biweekly.

Construction sites that disturb one acre of land or greater are required to obtain *separate* coverage under the ODEQ General Permit for Discharges of Storm Water Associated with Construction Activity (#OKR10). Also, construction activities disturbing less than one acre must get permit coverage if they are part of a larger common plan of development or sale (such as road building, construction of residential houses, office buildings, industrial sites, or demolition). Prior to starting any groundbreaking activities, a REC must be completed and copies of all necessary permits must be provided to and approved by EQD. Proponents must submit a work

order request and preliminary design drawings to EQD for review and comment by all the program managers. The comments are compiled in a REC and returned to the project proponent. Updated drawings and specifications are submitted to EQD for additional review as the project changes and progresses. Once review is completed and approved by EQD, the proponent may submit a NOI to be covered under the ODEQ General Permit for Discharges of Storm Water Associated with Construction Activity (#OKR10). The contractor/operator (the project proponent) is legally responsible for complying with the permit, and must conduct inspections of the site to ensure effective BMP implementation.

The SWPM continues to monitor construction activity by conducting periodic quality control inspections that are prioritized based on locations of sites and water bodies, past violations, acreage, and the nature of operations. Regular (unannounced) inspections of SWPPP controls are performed every 14 days and within 24 hours of a rain event (half-inch or more). Inspection frequency may be reduced to at least once every month if the entire site is temporarily stabilized or runoff is unlikely due to weather conditions (ground is covered with snow, ice, or is frozen).

Records of inspections are kept in a log as part of the SWPPP, and include site hydrology, sediment and erosion control BMPs, waste containment measures, operations, equipment, and documentation. Any violations are documented, and the SWPM or Quality Assurance manager will perform a formal inspection, in which records are reviewed to ensure BMP Inspection and Field Activity logs are accurate and current. The proponent must correct any deficiencies with the permit and SWPPP. Non-compliance documented by QA representatives is referred to contracting officers for resolution. Failure to resolve can lead to a bad contractor performance rating and inability to secure future government contracts. In addition to contracting actions, non-compliance can be referred to ODEQ for enforcement. ODEQ conducts a final stabilization inspection after the site is approved by EQD. Uncooperative proponents are held to the standard of local, State, and Federal storm water regulations. EQD may implement an escalating enforcement matrix that may include written warning notices, stop work orders, and an "up-chain" process, whereby the Garrison Commander ultimately controls the extent of enforcement on the installation.

Prior to submitting a Notice of Termination (NOT), EQD performs an in-house inspection to ensure that final stabilization has been achieved and the permit conditions have been met. Once EQD determines that permit parameters have been met, the proponent may contact ODEQ for a NOT inspection to officially close the permit.

Future controls for this MCM include development of a Command Policy which will help the proponent adhere to procedures that must be followed for construction projects on Fort Sill and will be available at the Fort Sill Environmental office for contractors/operators and contracting officers. Fort Sill will develop, implement, and enforce a program to reduce pollutants in storm water runoff to the MS4 from construction activities. The Command Policy will require the use of erosion and sediment (E&S) and waste controls at construction sites and include written procedures for site inspections (timing and frequency), developing E&S controls, enforcing E&S controls, site plan review and approval, and controlling waste materials.

Table 5.1 lists the measurable goals and BMPs already implemented for this MCM, as well as new measures that will be implemented in the future.

Table 5.1. Construction Site Runoff Measureable Goals and BMPs

BMPs and Goals	Metric for Goal	Department Responsible	Schedule
Review work orders, site plans, SWP3s, E&S controls, and BMPs prior to construction activity	Review site plans, SWP3s, E&S controls, and BMPs on a project by project basis for sites 1 acre or larger. Review will verify compliance with permit requirements.	EQD, PI	Ongoing
Assess, review, and update this MCM, [#] including the appropriateness of BMPs	Review the program within 1 year of the effective date of the permit and as needed thereafter.	SWPM	30 Oct 2016, & as needed
Develop written procedures for site inspections [#]	Develop written procedures for site inspections (timing and frequency), developing E&S controls, enforcing E&S controls, site plan review and approval, and controlling waste materials.	SWPM	15 Feb 2017
Conduct inspections of construction BMPs and E&S controls [#]	Inspections are performed on a biweekly basis; deficiencies and action items are documented and tracked until they are corrected, with enforcement escalation for problem sites.	EQD, Proponent	30 Oct 2016, biweekly
Receipt and consideration of information submitted by the public [#]	Information submitted by non-project employees is documented, considered, and kept in the Environmental Office	EQD Chief	As needed
Continue ODEQ regulation updates	Review regulations annually	EQD, proponent	30 Oct 2016, annually

[#]Required by ODEQ regulation

6.0 POST CONSTRUCTION MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

It is important to develop, implement, and enforce a program to reduce pollutants in post-construction storm water runoff from new development and redevelopment projects of 1 acre or greater, while striving to prevent water quality impacts. Future post-construction structural and nonstructural BMPs should employ sediment and runoff controls (such as temporary diversion dikes and sediment basins), green infrastructure, and LID tools to maintain the predevelopment hydrology to the maximum extent practicable. Fort Sill's post-construction BMP design and implementation will highlight BMPs that are most practical and effective for common development and redevelopment activities such as the construction of administrative buildings, maintenance facilities, parking lots, and new developments.

Fort Sill will encourage environmental stewardship through promoting smart growth, LID designs, and other BMPs for residential and commercial development as well as enhance usable green infrastructure at riparian areas. Fort Sill has restored and created green space throughout the cantonment area at riparian areas and parks such as Martha Songbird Nature Area, Ambrosia Park, Rucker Park, McMahon Woods, Medicine Creek Park, and Quinette Picnic Area. Riparian buffer zones have also been created at Medicine and Sitting Bear

Creeks. Range Control and EQD’s Natural Resources Branch manages the green spaces and shares information to maintain GIS coverage. These entities can review green space in the cantonment area (through GIS layers that map green space and natural areas) and identify opportunities to enhance or increase natural areas in future development. Fort Sill will plan for sediment and runoff controls where needed, to reduce impacts from development. In addition, EQD will review the post construction initiatives that Corvias is responsible for implementing.

Phase II regulations require MS4s to adopt an ordinance or similar mechanism to ensure that established water quality standards are preserved after construction, and that post-construction runoff levels are consistent with local and regional watershed plans. Since the installation is essentially a single entity, the structure for enforcement of any standard or implementation of BMPs is through the installation command structure. AR 200-1 effectively enforces environmental stewardship and enhancement. The AR 200-1 and the ODEQ Phase 2 Small MS4 General Permit (OKR04) both establish criteria that will promote green space and natural areas, as well as encourage smart growth, and enforced penalties for violations. Enforcement will include a progressive system of notices, warnings, and fines. See Appendix E for AR 200-1.

Military vertical building construction projects must now utilize the U.S. Green Building Council’s Leadership in Energy and Environmental Design (LEED) rating system to reduce energy consumption and optimize life cycle performance. This policy applies to all new construction projects, regardless of funding source. The LEED system is modeled after the following six construction and design principles: optimizing site potential, optimizing energy use, protecting and conserving water, using environmentally preferable products, enhancing indoor environmental quality, and optimizing operational and maintenance practices. The LEED Silver rating uses BMPs to maintain the predevelopment hydrology, reduce impervious surfaces, and encourage infiltration, thereby decreasing sedimentation and preventing water pollution. Strategies to treat 0.75 inches or more of rainfall include using LID and sustainable designs, rainwater harvesting, and alternative surfaces such as green roofs, pervious pavement, rain gardens, and vegetative swales.

At the completion of construction, Facility Maintenance tours the facilities prior to acceptance by the government. Facility maintenance makes any necessary changes to the Facility maintenance contract to assure all new features are included in the maintenance schedules. The maintenance is recorded in GFEBs.

Table 6.1 lists the measurable goals and BMPs already in place for this MCM, as well as new measures that will be implemented in the future.

Table 6.1 Post Construction Storm Water Management Measureable Goals and BMPs

BMPs and Goals	Metric for Goal	Department Responsible	Schedule
Enhance existing parks, green space, and natural areas	Continue to monitor the enhancement of existing parks, green space, and natural areas on a continuous basis	EQD, DPW, Range Control, Corvias	Continuously as needed
Coordinate with installation planners and developers to encourage smart growth and Low Impact Development (LID)	Maintain records of attendance at design meetings	EQD, DPW, Range Control, Corvias	30 Oct 2016, or as needed

BMPs and Goals	Metric for Goal	Department Responsible	Schedule
Create new green space and natural areas	Establish new green space and natural areas as opportunities are presented	EQD, Corvias	30 Oct 2016, or as needed
Update GIS coverage for green space and natural areas	Annually update the GIS coverage for green space and natural areas	EQD, DPW, Range Control, Corvias	30 Oct 2016, Annually
Assess, review, and update the existing new development and redevelopment post construction management program [#]	Review the program within 1 year of the effective date of the permit plus annually thereafter, and revise the program where necessary, including BMPs. Develop a schedule to remove any barriers (such as local ordinances or regulations) that prohibit LID practices selected by the MS4, or provide justifications for each barrier not removed.	SWPM	30 Oct 2016, and annually
Education and Outreach [#]	Fort Sill EQD sponsors LID and post-construction BMP workshops at construction forums.	EQD	30 Apr 2017, and as needed
Track all permanent BMPs [#]	Permanent BMPs to be responsibility of building manager.	Bldg. manager	30 Oct 2016, ongoing
Post-Construction BMP, Inspection, and Maintenance Plan [#]	Develop/implement a post-construction BMP, to include appropriate structural and nonstructural BMPs, and an inspection and maintenance program. Maintain records for BMP inspections and maintenance program.	SWPM	30 Oct 2016, ongoing

[#]Required by ODEQ regulation

7.1 POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MS4 OPERATIONS

The objective of this MCM is to develop and implement an operation and maintenance program at Fort Sill to influence public behavior towards preventing and reducing pollutant runoff into the storm drainage system. Good housekeeping (GH) measures are designed to control pollution that collects on streets, parking lots, open spaces, storage and vehicle maintenance/washing areas, which are then discharged to local water bodies. The pollutants that are discharged can impair both the storm sewer system and water quality. The pollution prevention (P2) and GH BMPs are designed to maintain the storm sewer system and its outfalls by preventing any damage caused by age and neglect. All policies implemented and actions taken regarding pollution prevention and good housekeeping should be documented in the annual reports submitted to ODEQ.

This MCM requires P2 and GH measures (including a training component) in municipal operations to reduce storm water pollution from these activities. Targeted municipal activities include: parks and open spaces, roads and grounds maintenance, vehicle/equipment and building maintenance, storm sewer system maintenance, new construction and ground disturbing activities, and commercial activities that resemble Phase I industrial activities (autocraft shops, filling stations, car washes, the Post Exchange, golf courses, and tank farms). Much of this is managed under the current industrial storm water permit. Each facility has a person assigned as the building facilitator, whose responsibilities include building/grounds maintenance. Any problems noted are to be reported via work order and the appropriate

personnel are then notified to fix the area of concerns. This includes BMP's, ABMP's and maintenance checks.

Training in good housekeeping and preventive maintenance is provided to designated military and civilian personnel, and covers the following issues: safe transfer, storage, use, and disposal of POL and solvents; maintenance inspections, and spill prevention and response. The topics of pesticide management, utility operations, and preventive maintenance/good housekeeping are discussed at SillFACTS meetings and annual HAZMAT refresher course. The information disseminated through the public education and illicit discharge MCMs will include similar and complimentary topics.

At the completion of construction, Facility Maintenance tours the facilities prior to acceptance by the government. Facility maintenance makes any necessary changes to the Facility maintenance contract to assure all new features are included in the maintenance schedules. The maintenance is recorded in GFEBS. Also, each building has a dedicated facility manager that has the responsibility of maintaining that particular building, which includes surrounding ground areas. Any BMP's that may fail or in need of repair, can be requested by the facility manager.

Fort Sill maintains a list of Industrial Activities subject to the ODEQ Multi-Sector General Permit (OKR05) located within the cantonment area. This list is reviewed annually, updated as needed, and includes the following 34 industrial activities that discharge to about 85 different outfall points:

- Motor Pools at sites 812, 813, 840, 1450, 1935, 1950, 2026, 2258 (LRC Complex), 2435, 2440, 2454, 2460, 2466, 2475, 2487, 2493, 2652, 3040, 3347, 3348, 3376, 3386, 3391, 3393, 3910, 3920, 3930, 3960, 3990, and 6115;
- POL Facility at 2245;
- Defense Logistics Agency Disposition Services (DLADS) at 3321;
- Recycling Facility at 3330,
- Air Strip at 4915 and the active landfill.

Refer to the Storm Water Pollution Prevention Plan (SWP3) for more information on these activities. They are inspected weekly and biannually in accordance with the OKR05 permit for Storm Water Discharges from Industrial Activities, and quarterly visual storm water observations are performed, and records are kept with EQD. A copy of the annual industrial report will be submitted with the annual small MS4 report.

Measures already implemented include a Spill Prevention, Control, and Countermeasure Plan (SPCC) that is reviewed and amended at least once every 5 years. It prevents POLs from reaching the waters of the state in the event of a spill or leak. Spill prevention and response is a component of the installation's storm water pollution prevention trainings and part of the job duties of many installation employees. Facilities where a potential spill could occur have spill kits on site and trained personnel to respond in the event of a spill.

Fort Sill operates salt storage facilities run by DPW. EQD and Corvias will review fine gravel and road salt usage on the cantonment area roads and parking lots, and periodically sweep busy roads to reduce dust and salt residues.

EQD will inspect public works maintenance, storage yards (POL, salt, and sand), waste transfer stations, maintenance shops with outdoor storage yards, snow disposal areas, and construction sites as needed, to control, reduce, or eliminate the discharge of pollutants. The effectiveness of this MCM will be assessed by reviewing public works and commercial facility needs, storm sewer system maintenance issues, road salt and gravel usage, street sweeping program, and

good housekeeping/preventive maintenance training programs and will be included as key related issues in the annual report.

BMPs to meet this MCM include a review of public works and commercial activities, inspections and checks, review of salt and fine gravel usage, street sweeping, integrated pest management program, and training. In addition, new flood management projects include BMPs that reduce and control flooding events where possible to minimize impacts to water quality. BMPs are reviewed annually by EQD and altered as necessary.

The integrated pest management program is implemented through EQD by DPW Facility Maintenance personnel, who receive training in pest management and application and spill prevention and control. They also continuously review pest management and application procedures for public areas to minimize the amount of pesticides used. In addition, information about lawn care and chemical application is disseminated to on-post personnel.

Table 7.1 lists the measurable goals and BMPs that are already in place at Fort Sill as well as new BMPs that will be implemented in the future.

Table 7.1 Pollution Prevention and Good Housekeeping Measureable Goals/BMPs

BMPs and Goals	Metric for Goal	Department Responsible	Schedule
Assess, review, and update this P2/GH program [#]	Review the program within 1 year of the effective date of the permit plus annually thereafter, and revise the program where necessary.	Compliance Branch Chief	30 Oct 2016, annually
Review public works and commercial sites	Keep records of annual reviews of public works and commercial sites.	EQD, DPW, PI	1 Dec 2016, annually
Inspect storm sewers	Inspect storm sewers, as required.	EQD, DPW, AWE	30 Oct 2016, annually
Review road salt and fine gravel usage	Perform an annual review of road salt and gravel usage.	EQD, DPW	30 Oct 2016, annually
Sweep streets to remove sediment	Conduct periodic street sweeping as needed to clean debris off the roads.	DPW	15 Mar 2017, as needed
Integrated pest management program (IPMP)	Implement and maintain IPMP.	DPW	15 Oct 2016
Good housekeeping and preventive maintenance training for designated military and civilian personnel [#]	Develop and implement an employee training program to prevent/reduce storm water pollution from municipal activities described above (park and open space, fleet and building, new construction and land disturbances, and storm water system maintenance). The public education and illicit discharge MCMs will be used to accomplish the annual training.	EQD, DPW, Corvias	1 Oct 2016, annually

BMPs and Goals	Metric for Goal	Department Responsible	Schedule
Continue review of needs at public works and commercial sites. Address any problems or major issues in the annual program review and report.	Annually keep records and report problems and issues from review of needs at public works and commercial sites. Most issues addressed during design phase.	EQD, DPW, Corvias	Continuously and annually
Review problems encountered during storm sewer system checks	Keep records of problems encountered during storm sewer system checks.	EQD, DPW, AWE, Corvias	As needed
Review coverage of street sweeping program	Perform a review of the street sweeping program on an annual basis.	EQD, DPW	30 Oct 2016, annually
Maintain, review, and update list of industrial activities in cantonment area [#]	Review and update the list of permitted industrial activities in the cantonment area on an annual basis.	SWPM	15 Oct 16, Annually
Flood Control [#]	New construction designs include BMPs that reduce and control flooding events where possible and during design phases. BMPs are reviewed annually by EQD and altered as necessary.	EQD/SWPM	30 Oct 2016, Annually
Maintain the SPCCP*	Maintain and update the SPCCP every 5 years. Provide SPCC training to applicable facility personnel.	SWPM	As needed

[#] Required by ODEQ regulation

*Recommended

8.0 RECORDKEEPING.

The permittee must retain records of all monitoring information including the following: monitoring results, calibration and maintenance records, all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, copies of all DMRs, a copy of the permit, and records of data used to complete the NOI. Records must be kept for at least three years from the date of the sample or for the term of the permit (whichever is longer) and made accessible to the public by request.

Prepared by:

WENDY B. MERVINE
Environmental Engineer - Water Resources Division
US Army Public Health Center

Reviewed by:

KENT B. PRINN, P.E.
Division Chief
Water Resources

Formatted: Normal, Left, Indent: Left: 0", Right: 0", Space Before: 0 pt

Formatted: Space Before: 0 pt

Formatted: Indent: Left: 0", Line spacing: single

Formatted: Normal, Left, Indent: Left: 0", Right: 0", Space Before: 0 pt, Line spacing: single

Formatted: Normal, Indent: Left: 0", Right: 0"

Formatted: Normal, Indent: Left: 0", Line spacing: single

Formatted: Space Before: 0 pt

Formatted: Normal, Left, Indent: Left: 0", Right: 0"

Formatted: Space Before: 0 pt

Formatted: Indent: Left: 0", Line spacing: single

Formatted: Normal, Indent: Left: 0", Space Before: 0 pt, Line spacing: single

Formatted: Normal, Indent: Left: 0", Right: 0", Line spacing: single, Tab stops: Not at 5.44"

Formatted: Normal, Indent: Left: 0", Line spacing: single

APPENDIX A REFERENCES

1. ~~Oklahoma Permit Discharge Elimination System (OPDES) General Permit for Phase II Small MS4s to Discharge Storm Water (OKR04), (1 November 2015).~~
2. ~~OPDES General Permit for Storm Water Discharges From Construction Activities Within the State of Oklahoma (OKR10) (13 September 2012).~~
3. ~~OPDES General Permit for Storm Water Discharges From Industrial Activities Under the Multi-Sector Industrial General Permit Within the State of Oklahoma (OKR5) (5 September 2011).~~
4. ~~Phase II NPDES Storm Water Program web page, USEPA, [<https://www.epa.gov/npdes/stormwater-discharges-municipal-sources#developing>].~~
5. ~~Impaired Waters List (303 (d)), Integrated Water Quality Assessment web page, ODEQ 2014 http://www.deq.state.ok.us/wqdnew/305b-303d/2014/2014_appendix_c_303d_final.pdf~~

Formatted: Space Before: 0 pt

Formatted: Left: 0.89", Right: 0.89", Top: 0.86", Bottom: 0.78", Header distance from edge: 0.72", Footer distance from edge: 0.64"

Formatted: Indent: Left: 0", Line spacing: single

Formatted: Space Before: 0 pt

Formatted: Normal, Left, Indent: Left: 0", First line: 0", Right: 0", Space Before: 0 pt, Line spacing: single

Formatted: Space Before: 0 pt

Formatted: Normal, Right: 0", No bullets or numbering, Tab stops: Not at 0.33"

Formatted: Space Before: 0 pt

Formatted: Normal, Right: 0", No bullets or numbering, Tab stops: Not at 0.33"

Formatted: Space Before: 0 pt

Formatted: Normal, Right: 0", No bullets or numbering, Tab stops: Not at 0.33"

Formatted: Space Before: 0 pt

Formatted: Indent: Left: 0", Line spacing: single

APPENDIX B

STORM SEWER MAP

Formatted: Left

Formatted: Left

APPENDIX B

Storm Sewer Maps (insert)

Formatted: Left

Formatted: Normal, Left

APPENDIX C

GENERAL STORM WATER PERMIT

Formatted: Adjust space between Latin and Asian text, Adjust space between Asian text and numbers

APPENDIX D

CORVIAS Military Living Storm Water Management Plan

APPENDIX E

AR-200-1

Formatted: Left



Formatted: Line spacing: single

Formatted: Top: 0.86", Bottom: 0.78", Footer distance from edge: 0.64"