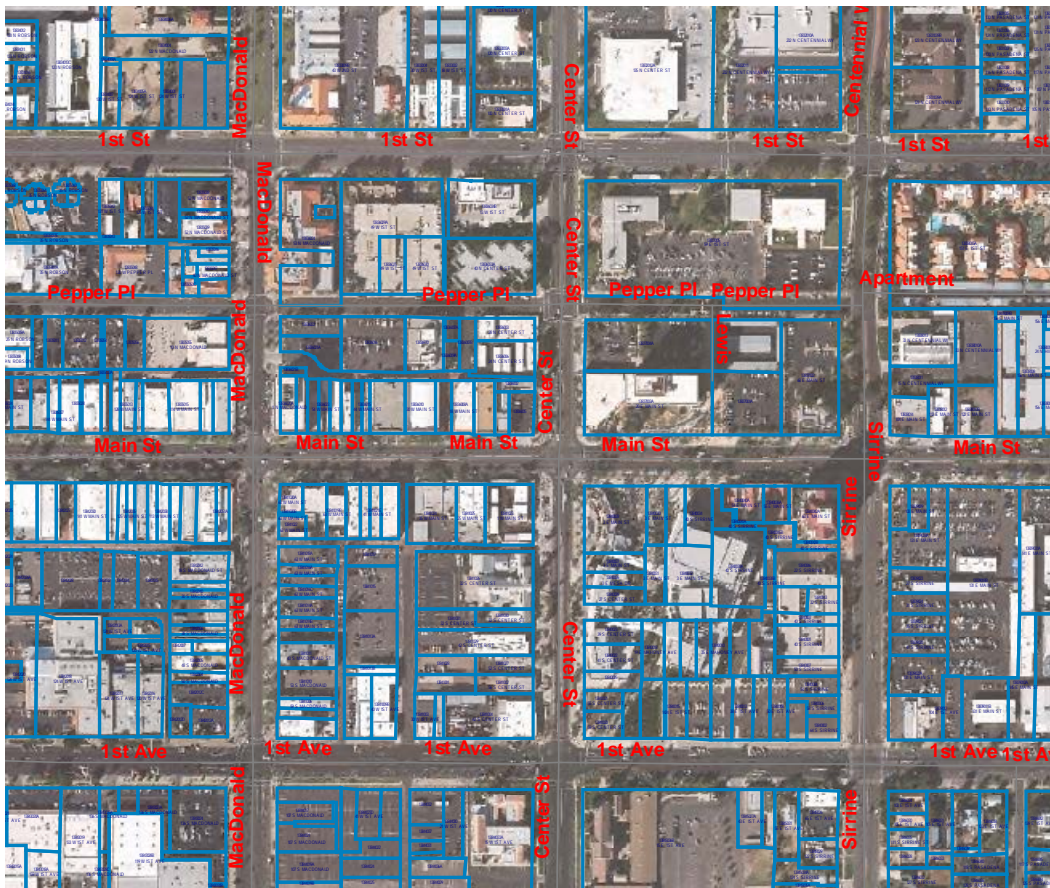


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## Environmental & Sustainability Division



# STORM WATER MANAGEMENT PLAN

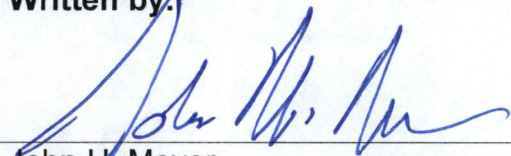
September 2011

This Storm Water Management Plan has been prepared by the City of Mesa Environmental & Sustainability Division in response to the conditions established by the Arizona Department of Environmental Quality's Municipal Separate Storm Sewer System permit issued to the City of Mesa, effective August 30, 2010.

This document can be found on the ESD Server at the following location:  
I:\2010 ESD Operating Procedures\Stormwater\Stormwater Management Plan\Document Text\2011-09 Storm Water Mangement Plan - Final.docx

Written by:

Date:

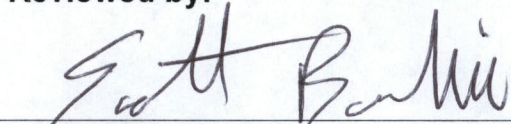


9/26/11

John H. Meyer  
Environmental Programs Specialist

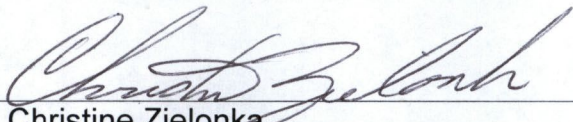
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Date:



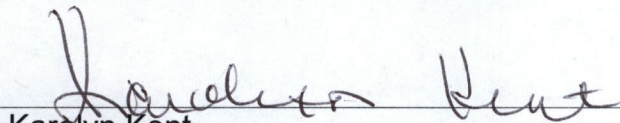
09/26/11

Scott Bouchie  
Deputy Director, Environmental & Sustainability



9/26/11

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Development & Sustainability Department Director



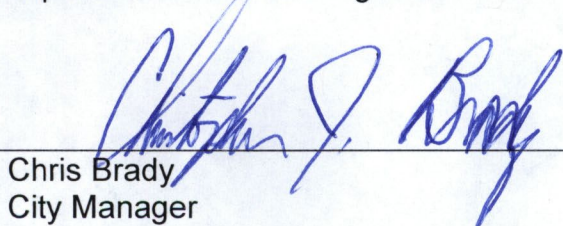
9-29-11

Karolyn Kent  
Deputy City Manager

Approved by:

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Date:



9/29/11

Chris Brady  
City Manager

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## **APPENDICES**

Appendix A: Stormwater Code (Draft)

Appendix B: Drainage Area Map

Appendix C: Outfall & Field Screening Point Information

Appendix D: Field Screening Test Quantitative Methods & Thresholds

Appendix E: Basic Case Enforcement Process Work Instructions

Appendix F: City Facility Inventory

Appendix G: Non-Municipal Categorical Industrial Facilities

## **ACRONYMS AND ABBREVIATIONS**

2010 MS4 Permit – City of Mesa MS4 Stormwater Permit, AZS000004-2010

AAC – Arizona Administrative Code

ADEQ – Arizona Department of Environmental Quality

APP – Aquifer Protection Permit

ARS – Arizona Revised Statutes

AZPDES – Arizona Pollutant Discharge Elimination System

BMP – Best Management Practice

CFR – Code of Federal Regulations

CGP – Construction General Permit

City – City of Mesa

DMGP – De Minimis General Permit

EMF – East Maricopa Floodway

FOG – Fats, Oils, and Greases

FSP – Field Screening Point

GRD – Grease Removal Device

HHW – Household Hazardous Waste

LID – Low Impact Development

MEP – Maximum Extent Practicable

MS4 – Municipal Separate Storm Sewer System

MSGP – Multi-Sector General Permit

NAICS - North American Industry Classification System

NOI – Notice of Intent

NPDES – National Pollutant Discharge Elimination System

SARA – Superfund Amendments Reauthorization Act

SIC – Standard Industrial Classification

STORM – STormwater Outreach for Regional Municipalities

SWPPP – Stormwater Pollution Prevention Plan

SWMP – Storm Water Management Plan

TRI – Toxic Release Inventory

USEPA – United States Environmental Protection Agency

## EXECUTIVE SUMMARY

This Storm Water Management Plan (SWMP) has been prepared by the City of Mesa (City) in response to the conditions established by the Arizona Department of Environmental Quality’s (ADEQ) Municipal Separate Storm Sewer System (MS4) permit issued to the City, effective August 30, 2010 (Permit No. AZS000004-2010; herein referred to as the 2010 MS4 Permit). The 2010 MS4 permit allows the City to operate a storm sewer system in a manner that reduces the discharge of pollutants to waters of the United States to the maximum extent practicable.

The ADEQ requires the City to include in the contents of this SWMP information supplied in Appendix C of the 2010 MS4 Permit, to generally follow the format provided in that appendix, and to include a cross reference where the contents are found in the SWMP. The general requirements of the Appendix C of the 2010 MS4 Permit, with cross references, is provided in the table below.

REQUIREMENT	SECTION
<b>PUBLIC EDUCATION AND OUTREACH:</b>	
Describe on-going and planned outreach activities to educate the community (developers, contractors, homeowners, public, etc.) on stormwater control measures. Include the frequency and type of outreach, target audiences and the development and distribution of educational materials.	2.0
<b>PUBLIC INVOLVEMENT AND PARTICIPATION:</b>	
Describe on-going and planned processes to involve the public in the SWMP and in activities to implement the SWMP.	3.0
<b>ILLICIT DISCHARGE DETECTION &amp; ELIMINATION (IDDE):</b>	
<b>Practices for Preventing Illicit Discharges:</b>	
<ul style="list-style-type: none"> <li>• Illicit Discharge Ordinance: A description of the ordinance(s) used to prohibit and eliminate illicit discharges to the storm sewer system. Include, as an attachment, a copy of the ordinance(s).</li> </ul>	1.2 Appendix A

REQUIREMENT	SECTION
<ul style="list-style-type: none"> <li>• Non-Stormwater Discharge Evaluation: A description of the program to manage nonstormwater discharges to the municipal storm sewer system (such as approvals, permits, discharge notifications, or establishing control measures), including a list of the types of non-stormwater discharges that are or will be allowed to discharge to the storm sewer system.</li> </ul>	4.1
<ul style="list-style-type: none"> <li>• Non-Stormwater Discharge Records: A description of the MS4's system for tracking and recording non-stormwater discharges for which specific approval, permits, or notifications are required.</li> </ul>	4.1.3
<b>Practices and Procedures for Field Screening (dry weather monitoring):</b>	
<ul style="list-style-type: none"> <li>• Outfall Inventory: An inventory of major outfalls and field screening points organized by drainage area or a mapping system showing outfalls.</li> </ul>	4.3.1 Appendix B Appendix C
<ul style="list-style-type: none"> <li>• Inspection Priorities and Schedule: A description of the priorities and schedule for inspecting major outfalls and screening points; the priorities for inspection and the basis for those priorities; and the frequency and schedule of inspections.</li> </ul>	4.3.3
<ul style="list-style-type: none"> <li>• Field Screening Procedures: A description of standard procedures and methods for inspecting and screening, documenting conditions, and reporting potential illicit discharges. Describe the system used to track and record findings.</li> </ul>	4.3.4 4.3.5 4.3.6
<ul style="list-style-type: none"> <li>• Staff Training (Screening and Investigation): A description of training to educate and update inspectors and other field staff on detecting, investigating, and identifying illicit discharges (to include field screening procedures, field measurements, sampling methods, use of chain of custody protocols when analytical monitoring is used). Include the frequency and type of training.</li> </ul>	4.3.7
<b>Investigating Potential Illicit Discharges:</b>	
<ul style="list-style-type: none"> <li>• Dry Weather Discharges: The city shall develop and include in the SWMP a detailed field screening protocol for investigating dry weather discharges. This shall include criteria to identify, characterize and prioritize dry weather discharges; determine the source(s) and develop a schedule for their timely elimination. This shall include the rationale for selection of dry weather field screening locations and for performing appropriate follow-up analytical monitoring. Include visual and analytical monitoring procedures, and specify how and when decisions are made to sample.</li> </ul>	4.3.1 4.3.4 4.3.5 4.4 4.4.4 4.5

REQUIREMENT	SECTION
<ul style="list-style-type: none"> <li>Existing Dry Weather Flows: During the term of this permit, the city shall re-evaluate any known dry weather discharges that have not been eliminated or investigated in the last five (5) years.</li> </ul>	4.3.2
<ul style="list-style-type: none"> <li>Illicit Discharge Investigation (Source Identification): Describe the MS4's practices and procedures to investigate potential illicit discharges and other sources of non-stormwater, including methods to identify possible sources (such as sampling procedures, storm sewer investigation practices, research of non-stormwater discharges, etc.). The IDDE provisions in the SWMP shall include field screening thresholds to indicate when an illicit discharge may be present and follow-up investigations are necessary.</li> </ul>	4.2 4.3.5 4.4 Appendix D
<ul style="list-style-type: none"> <li>Industrial Facility Inspections: Describe the inspection practices for industrial facilities to identify cross connections with sanitary sewer lines and other potential sources of illicit discharges or releases of toxic materials to the storm sewer system.</li> </ul>	7.3 7.4
<ul style="list-style-type: none"> <li>Tracking and Reporting: Describe the MS4's process to summarize and report the results of dry weather field screening and analytical monitoring, including the identification and elimination of illicit connections and illegal discharges.</li> </ul>	4.3.6 4.4.4
<ul style="list-style-type: none"> <li>Illicit Discharge Elimination: Describe the process for conducting follow-up source identification investigation, and the enforcement strategy to eliminate sources of illicit discharges and ensure compliance with illicit discharge ordinances. Include a description of the type of corrective and enforcement actions (notice of correction, notice of violation, fines, etc.) that may be initiated.</li> </ul>	4.4 4.5
<b>Illicit Discharge Public Awareness and Reporting Program:</b> Practices to promote, publicize, and facilitate public reporting of illicit discharges to and from the municipal storm sewer system.	3.1 4.2
<b>MUNICIPAL FACILITIES POLLUTION PREVENTION/GOOD HOUSEKEEPING PRACTICES:</b>	
<b>Proper Management of Used Oils and Hazardous and Toxic Substances:</b> Describe practices used to facilitate the proper management and disposal of used oil and hazardous and toxic substances used, stored, or generated by the MS4.	5.2

REQUIREMENT	SECTION
<p><b>Controls for Pesticides, Herbicides, and Fertilizers:</b></p> <p>The SWMP shall describe a program to effectively minimize pollution from pesticide/herbicide use at city facilities. The city shall only apply pesticides that are Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) approved for aquatic application in any area within or adjacent to waters of the U.S., including ephemeral washes.</p>	5.4
<p><b>Spill Prevention and Response:</b></p> <p>Describe practices and procedures to prevent, contain, and otherwise manage spills to minimize discharges to the municipal storm sewer system.</p>	5.2
<p><b>MEASURES TO REDUCE POLLUTANTS FROM RESIDENTIAL AND COMMERCIAL AREAS:</b></p>	
<p><b>Drainage System Maintenance (Structural Controls):</b></p> <p>Practices for the maintenance of stormwater collection and conveyance structures to reduce the discharge of pollutants to and from the municipal storm sewer system, including the following areas:</p>	
<ul style="list-style-type: none"> <li>• Drainage system inventory or maps.</li> </ul>	6.1
<ul style="list-style-type: none"> <li>• Drainage system monitoring program.</li> </ul>	6.3
<ul style="list-style-type: none"> <li>• Maintenance priorities and schedule.</li> </ul>	6.2
<ul style="list-style-type: none"> <li>• System maintenance (drainage channels, washes, and retention basins).</li> </ul>	6.3
<p><b>Controls for New Developments and Significant Redevelopment:</b></p> <p>Planning procedures and post-construction practices to reduce the discharge of pollutants from newly-developed and redeveloped areas to the MS4, including a brief summary of:</p>	
<ul style="list-style-type: none"> <li>• Post-construction ordinances applicable to stormwater controls or quality.</li> </ul>	NA
<ul style="list-style-type: none"> <li>• Design and maintenance standards applicable to post-construction (including the standard, review and implementation processes).</li> </ul>	8.1.1
<ul style="list-style-type: none"> <li>• Plan review (including post-construction controls) and approval process.</li> </ul>	8.1
<ul style="list-style-type: none"> <li>• Inspection program (including practices, priorities, frequency, percentages, and timing).</li> </ul>	8.2.3

REQUIREMENT	SECTION
<ul style="list-style-type: none"> <li>Enforcement strategy/actions (including types, procedures, timelines).</li> </ul>	<p>8.3 4.5</p>
<p><b>Operation and Maintenance of Public Streets, Roads, and Highways:</b> Practices for operating and maintaining public streets, roads and highways to reduce the discharge of pollutants from the municipal storm sewer system, including the following:</p>	
<ul style="list-style-type: none"> <li>Drainage system visual monitoring.</li> </ul>	<p>6.3 6.4</p>
<ul style="list-style-type: none"> <li>Maintenance priorities and schedule.</li> </ul>	<p>6.3 6.4</p>
<ul style="list-style-type: none"> <li>System maintenance practices (drainage channels, washes, roadway catch basins/storm drain inlets and retention basins) and cleaning activities.</li> </ul>	<p>6.3</p>
<ul style="list-style-type: none"> <li>Street/parking lot sweeping program (frequency, priorities, schedule).</li> </ul>	<p>6.4</p>
<ul style="list-style-type: none"> <li>Street repair practices (staff training and standard control measures and procedures for repairs and improvements in a manner that protects stormwater and storm drains).</li> </ul>	<p>6.5</p>
<p><b>Additional Practices to Reduce Pollutants from Residential and Commercial Areas:</b> Describe additional practices underway or in place to reduce pollutants from commercial and residential areas to the municipal storm sewer system.</p>	<p>NA</p>
<p><b>INDUSTRIAL SITES:</b></p>	
<p><b>Identify Priorities and Implementing Controls:</b> Procedures and priorities for conducting inspections and implementing control measures, including the following:</p>	
<ul style="list-style-type: none"> <li>Industrial Facility Inventory: A process to develop and maintain an inventory of industrial facilities not operated by the MS4, which have the potential to discharge to the MS4. This is to include the facility name and address and the Standard Industrial Classification (SIC) code(s) which best reflects the principal products or services provided by each facility.</li> </ul>	<p>7.1.1 7.2.1</p>

REQUIREMENT	SECTION
<ul style="list-style-type: none"> <li>• <b>Municipal Facility Inventory:</b> An inventory and brief description of municipally-owned and operated facilities (other than administrative buildings) that have a potential to contribute pollutants to the MS4 system. Include the name and address, the operational status (operating or closed), and the Standard Industrial Classification (SIC) code(s) which best reflects the services provided by each facility. Provide, as an attachment, the inventory of municipal facilities.</li> </ul>	5.3 Appendix F
<ul style="list-style-type: none"> <li>• <b>Higher Risk Facilities:</b> Identification of industrial, municipal, or commercial facilities (or categories of facilities) that may be the most significant sources of pollutants or otherwise may have a higher risk of contributing pollutants to the storm sewer system, including a description of the basis (criteria) for establishing these facilities as higher risk facilities. Identification of risk may be based on the type of facility (i.e., nature of industrial activity), the products or services provided by the facility, proximity to receiving waters, receiving water quality, and other factors that indicate the potential to impact water quality.</li> </ul>	5.3 7.1.2 7.2.2
<ul style="list-style-type: none"> <li>• <b>Stormwater Management Evaluations (Municipal Facilities):</b> A general plan for review of stormwater control measures and maintenance procedures implemented at municipally-operated facilities to minimize the discharge of pollutants from the site. Include a process to evaluate compliance with state (i.e., the requirement for AZPDES permits) stormwater requirements as applicable.</li> </ul>	5.4
<p><b>Inspections and Monitoring:</b></p> <p>Inspection of industrial facilities and monitoring of discharges associated with industrial facilities that may impact stormwater, including the following:</p>	
<ul style="list-style-type: none"> <li>• <b>Inspection Procedures:</b> A description of standard procedures for inspecting industrial facilities, documenting facility conditions, and reporting potential sources of pollutants or illicit discharges. Describe the system to document and retain the inspection findings.</li> </ul>	7.2.3 7.3
<ul style="list-style-type: none"> <li>• <b>Industrial Facility Inspections – Higher Risk:</b> A description of the inspection program implemented for higher risk industrial or commercial facilities (or categories of facilities) to identify and eliminate potential discharges of pollutants to the storm sewer system, verify implementation and maintenance of stormwater control measures in compliance with municipal stormwater ordinances, and confirm ADEQ authorization to discharge stormwater associated with industrial activity, as applicable (i.e., NOI authorization). Include information on the schedule for inspecting higher risk facilities (i.e., frequency of inspections) throughout the permit term.</li> </ul>	7.1.2 7.2.2 7.3.1 7.4

REQUIREMENT	SECTION
<ul style="list-style-type: none"> <li>AZPDES Non-Filers: A description of the method for tracking and reporting industrial facilities that are not authorized by ADEQ (i.e., NOI authorization) under the AZPDES Multi-Sector General Permit (MSGP) for stormwater discharges associated with industrial facilities including the type of information that is reported to ADEQ.</li> </ul>	7.5
<p><b>Other Measures to Control Pollutants from Landfills, Municipal Waste Facilities, and Industrial Facilities:</b></p> <p>A description of any other practices implemented to control pollutants from landfills, municipal waste facilities, and industrial facilities.</p>	NA
<b>CONSTRUCTION SITES:</b>	
<p><b>Reviewing Construction Site Plans:</b></p> <p>Procedures for site planning which incorporate consideration of potential water quality impacts, including the following practices:</p>	
<ul style="list-style-type: none"> <li>Maintaining a construction project inventory.</li> </ul>	8.1 8.2
<ul style="list-style-type: none"> <li>MS4 plan review of construction sites (i.e., what types of sites are reviewed; approvals or permits required; MS4 process summary).</li> </ul>	8.1
<ul style="list-style-type: none"> <li>Staff training (with respect to the plan review process).</li> </ul>	8.1.3
<ul style="list-style-type: none"> <li>A description of the approval process (e.g., plan or permit approval) to authorize new construction projects (such as municipal stormwater permits) upon verification that construction plans (stormwater pollution prevention or management plans) comply with municipal stormwater requirements for stormwater control measures, and that the operator has obtained AZPDES authorization (NOI authorization) to discharge stormwater associated with construction activity.</li> </ul>	8.1
<p><b>Structural and Non-Structural Stormwater Control Measures:</b></p> <p>Municipal requirements relating to structural and non-structural stormwater control measures, including construction standards and ordinances as related to stormwater.</p>	
<ul style="list-style-type: none"> <li>The MS4 shall establish standard procedures and practices for design and maintenance of post-construction stormwater controls (such as standards for open space preservation, on-site stormwater retention, and maintenance of pre-construction run-off rates and long term maintenance controls).</li> </ul>	8.1 8.2.3

REQUIREMENT	SECTION
<ul style="list-style-type: none"> <li>The city shall continue to implement the requirement for new facilities to install and maintain on-site retention/detention for a 100-year, 2-hour storm event in all areas of Mesa except those exempted by law or excluded under the technical appeals process, unless the city identifies another form of Low Impact Development (LID) options that meet the intent of this requirement. When possible, the city shall require such exempted facilities to install stormwater control measures.</li> </ul>	8.1.1 8.1.2
<ul style="list-style-type: none"> <li>The MS4 shall evaluate the potential and develop a plan for incorporating additional Low Impact Development (LID) practices into the city’s site planning and development processes.</li> </ul>	8.1.4
<p><b>Site Inspections and Enforcement:</b></p> <p>Procedures and priorities for inspecting construction sites and enforcing municipal ordinances, plan approvals (or permits), and design and maintenance requirements for stormwater controls, including the following practices:</p>	
<ul style="list-style-type: none"> <li>Inspection priorities.</li> </ul>	8.2.4
<ul style="list-style-type: none"> <li>Inspection procedures.</li> </ul>	8.2.1 8.2.2
<ul style="list-style-type: none"> <li>Inspection records.</li> </ul>	8.2.5
<ul style="list-style-type: none"> <li>Inspector training.</li> </ul>	8.2.6
<ul style="list-style-type: none"> <li>Enforcement processes and actions.</li> </ul>	8.3
<ul style="list-style-type: none"> <li>Reporting of AZPDES non-filers.</li> </ul>	8.4
<p><b>Other Practices to Control Pollutants from Construction Sites:</b></p> <p>A description of any other practices (structural or non-structural practices) the MS4 employs to control pollutants from construction sites.</p>	N/A

## 1.0 INTRODUCTION

This Storm Water Management Plan (SWMP) has been prepared by the City of Mesa (City) in response to the conditions established by the Arizona Department of Environmental Quality's (ADEQ) Municipal Separate Storm Sewer System (MS4) permit issued to the City, effective August 30, 2010.

### 1.1 MS4 PERMITTING SUMMARY

A MS4 permit allows municipalities to operate a storm sewer system in a manner that reduces the discharge of pollutants to waters of the United States to the maximum extent practicable (MEP).

#### 1.1.1 1997 Phase I MS4 Stormwater Permit

The United States Environmental Protection Agency (USEPA) designated the City a Phase I community and an operator of a medium sized MS4 and was required to receive permit coverage for stormwater that is discharged from their storm sewer system to waters of the United States under the National Pollutant Discharge Elimination System (NPDES) program. In order to obtain coverage, the City was required to submit a two part permit application. The City's Part I permit application was submitted to the USEPA in 1991 ([COM, 1991](#)). The City's Part II permit application was submitted to the USEPA in 1993 ([COM, 1993](#)).

Based on the information supplied in the Part I and Part II permit applications, the USEPA issued the City's Municipal Stormwater Permit No. AZS000004 on February 14, 1997 and became effective as of March 19, 1997 ([USEPA, 1997](#)). Under this permit, the City was required to meet all conditions provided in the Part I and Part II permit applications, and would be considered operating their MS4 in compliance with this permit if the City continued to do so.

#### 1.1.2 Arizona Pollutant Discharge Elimination System

In 2002, the USEPA granted primacy of NPDES permitting to the ADEQ. The ADEQ established the Arizona Pollutant Discharge Elimination Systems (AZPDES) program requirements in the Arizona Revised Statute (ARS) Title 49, Chap 2, Article 3.1 and the Arizona Administrative Code (AAC) Title 18, Chapter 9, Article 9.

### **1.1.3 2010 Phase I MS4 Permit**

Between 2002 and 2008, the City, as well as representatives from other Phase I MS4 operators (collectively, the Coalition of Cities, or Coalition), participated in permit negotiations with the ADEQ on the conditions for the issuance of the first Phase I MS4 stormwater permits under the AZPDES program. On July 30, 2010, the ADEQ issued the 2010 MS4 Permit (Permit No. AZS000004-2010) under the AZPDES program [[ADEQ, 2010\(b\)](#)]. That 2010 MS4 Permit became effective on August 30, 2010.

## **1.2 STORMWATER CODE**

The 1997 Phase I permit required the City to establish, maintain and enforce adequate legal authority to control discharges to the MS4 as provided in the Code of Federal Regulations [CFR; specifically, 40 CFR 122.26(d)(2)(i)].

- Control through ordinance, permit, contract, order or similar means, the contribution of pollutants to the MS4 by storm water discharges associated with industrial activity and the quality of storm water discharged from sites of industrial activity;
- Prohibit through ordinance, order or similar means, illicit discharges to the municipal separate storm sewer;
- Control through ordinance, order or similar means the discharge to a MS4 of spills, dumping or disposal of materials other than stormwater;
- Control through interagency agreements among coapplicants the contribution of pollutants from one portion of the municipal system to another portion of the municipal system;
- Require compliance with conditions in ordinances, permits, contracts or orders; and
- Carry out all inspection, surveillance and monitoring procedures necessary to determine compliance and noncompliance with permit conditions including the prohibition on illicit discharges to the MS4.

Proper legal authority is necessary for the City to effectively implement compliance programs to reduce pollutants in stormwater runoff to the MEP. Additionally, the 2010 MS4 Permit requires the City to prohibit all non-stormwater discharges except for those specified in the permit documents.

To meet the above requirements, the City established through ordinance Title 8 - Health, Sanitation, and Environment, Chapter 5 - Storm Water Pollution Control of the Mesa City Code (Stormwater Code). The City revised, through ordinance, the Stormwater Code to be consistent with other sections of the Mesa City Code, to make enforcement more consistent at the inspector level, and to ensure compliance with the 2010 MS4 Permit requirements. A copy of the draft Stormwater Code as approved by City Council on September 12, 2011 is provided in [Appendix A](#). A copy of the final codified version of the Stormwater Code will be provided in the City's 2011-2012 Annual Report.

The ADEQ and USEPA have also established legal authority for certain stormwater and non-stormwater flows to and from the City's MS4. These include, but are not limited, to the following:

- Stormwater and non-stormwater associated with construction activities covered under the ADEQ's Construction General Permit (CGP);
- Stormwater and non-stormwater associated with industrial activities covered under the ADEQ's Multi-Sector General Permit (MSGP);
- Non-stormwater associated with the ADEQ's De Minimis General Permit (DMGP);
- Stormwater and non-stormwater associated with other permits (individual or general) issued by either the ADEQ or USEPA [ex. certain pesticide applications, other regulated MS4s (i.e. county islands), etc.]; and,
- Stormwater and non-stormwater associated with state owned and operated facilities, federal owned and operated facilities, Native American tribal lands, or permitted utilities, special districts, and other wastewater management agencies.

As such, the ADEQ and USEPA are independently responsible for ultimately enforcing their own legal authorities over stormwater and non-stormwater flows from these sources.

### 1.3 WATERS OF THE UNITED STATES

The 2010 MS4 Permit requires the City to identify and map the waters of the United States that may receive discharges from the MS4. The 2010 MS4 Permit defines waters of the United States as follows:

*“Waters of the United States (U.S.) means those waters as defined in 40 CFR 122.2.”*

Where the CFR defines waters of the United States as:

*“Waters of the United States or waters of the U.S. means:*

- (a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;*
- (b) All interstate waters, including interstate “wetlands;”*
- (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, “wetlands,” sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
  - (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes;*
  - (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or*
  - (3) Which are used or could be used for industrial purposes by industries in interstate commerce;**
- (d) All impoundments of waters otherwise defined as waters of the United States under this definition;*
- (e) Tributaries of waters identified in paragraphs (a) through (d) of this definition;*
- (f) The territorial sea; and*
- (g) “Wetlands” adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.”*

The City does not have authority to determine what qualifies as a water of the United States. However, in the ADEQ's Response to Public Comments pertaining to the City's 2010 MS4 Permit [[ADEQ, 2010\(c\)](#)]; Response to Comment #3], the ADEQ identified the Salt River and the East Maricopa Floodway (EMF) as waters of the United States that receive discharges from the City's MS4 as provided below.

*“Although the city maintains it has no direct discharges to the a water of the U.S., it is noted the U.S. Army Corps of Engineers identified the East Maricopa Floodway (EMF) as a waters of the U.S. (see ADEQ letter to Christine Nunez, City of Mesa, March 21, 2005) ... For discharges to waters of the U.S. via another conveyance (e.g., discharges from Mesa's separate storm sewer system to one or more separate storm sewer system(s) owned/operated by another person(s) that subsequently discharge to a waters of the U.S. [Mesa's MS4→ADOT's MS4→Salt River])...”*

As such, the City accepts the ADEQ's determination that the Salt River and the EMF are waters of the United States that receive discharges from the City's MS4 at this time.

#### **1.4 ANNUAL REPORTING**

The 2010 MS4 Permit requires the City to prepare an annual report summarizing the implementation of the programs described in this SWMP. The annual report must be provided in the format provided by the ADEQ in the 2010 MS4 Permit. Annual reports include activities conducted during the reporting period which coincides with the City's fiscal year (July 1 through June 30<sup>th</sup>) and are due by September 30<sup>th</sup> of each year.

#### **1.5 UPDATES TO THE SMWP**

The 2010 MS4 Permit only allows the City to update this SWMP under the following conditions where a formal modification of the permit would not be required.

1. Addition of New Control Measures;
2. Addition of Temporary or Experimental Control Measures where such control measures may also be removed at the discretion of the City;
3. Increase in the amount or frequency of existing control measures;

4. Replacement of ineffective existing control measures with an alternate control measure by demonstrating that the change will continue to achieve an equivalent or increased reduction in pollutants;
5. Changing control measures from year to year for provisions provided in sections I.A, I.B, and II.A of Appendix A of the 2010 MS4 Permit.

Otherwise, the City cannot discontinue or decrease an existing control measure (including an amount, frequency, or timeframe) of any other measurable goal specified in Appendix A of the 2010 MS4 Permit without modification of the permit. The ADEQ or USEPA may also require revisions to the City's SWMP at any time through a permit modification process. In either case, modification would include at a minimum opening any revised portions of the permit for public comment.

The 2010 MS4 Permit requires the City to post the most current version of this SWMP on the City's website and to be accessible to the general public (see [Section 3.2](#)).

## 2.0 PUBLIC EDUCATION AND OUTREACH

Public education is an important element of the City's MS4 program. Increasing public awareness about stormwater issues and requirements is essential in controlling the discharge of pollutants to waters of the United States.

### 2.1 MS4 PERMIT REQUIREMENTS

The 2010 MS4 Permit identifies target audiences and topics for the Public Education & Outreach Program.

#### 2.1.1 General Public

The 2010 MS4 Permit requires the City to target at least one of the following groups during each permit year (August 30 through August 29<sup>th</sup>):

1. General Public;
2. Residential Community;
3. Home Owners;
4. HOAs; or,
5. Schools.

The 2010 MS4 Permit requires that at least one of the following topics be addressed for these target groups:

- Post-construction ordinances and long-term maintenance requirements for permanent stormwater controls
- Stormwater runoff issues and residential stormwater management practices
- Potential water quality impacts of application of pesticides, herbicides and fertilizer and control measures to minimize runoff of pollutants in stormwater
- Potential impacts of animal waste on water quality and the need to clean up and properly dispose of pet waste to minimize runoff of pollutants in stormwater
- Illicit discharges and illegal dumping, proper management of non-stormwater discharges, and to provide information on reporting spills, dumping, and illicit discharges

- Spill prevention, proper handling and disposal of toxic and hazardous materials, and measures to contain and minimize discharges to the storm sewer system
- Installation of catch basin markers or stenciling of storm sewer inlets to minimize illicit discharges and illegal dumping to the storm sewer system
- Proper management and disposal of used oil

The requirements under this part of the 2010 MS4 Permit provide the City an opportunity to select which topics (i.e. options or menu choices) to choose among during each specific year of the permit without modification to the permit. However, the City must report the outreach approach selected, the topic, the target group, and an estimated number of participants reached in each annual report.

### **2.1.2 Business Sectors**

The 2010 MS4 Permit also requires the City to target at least one of the following business sector groups during each permit year:

1. Development Community;
2. Construction Site Operators;
3. Targeted Sources (unspecified in the 2010 MS4 Permit); or,
4. Types of Businesses (industrial or commercial).

The 2010 MS4 Permit requires that at least one of the following topics be addressed for these target groups:

- Planning ordinances, engineering standards and grading and drainage design standards for stormwater management in new developments and significant redevelopments
- Municipal stormwater requirements and stormwater management practices for construction sites
- Illicit discharges and proper management of non-stormwater discharges
- Spill prevention, proper handling of toxic and hazardous materials, and measures to contain and minimize discharges to the storm sewer system

- Proper management and disposal of used oil and other hazardous or toxic materials, including practices to minimize exposure of materials/wastes to rainfall and minimize contamination of stormwater runoff
- Stormwater management practices, pollution prevention plans, and facility maintenance procedures

The requirements under this part of the 2010 MS4 Permit provide the City an opportunity to select which topics to choose among during each specific year of the permit without modification to the permit. However, the City must report the outreach approach selected, the topic, the target group and an estimated number of participants reached in each annual report.

## **2.2 STORMWATER OUTREACH FOR REGIONAL MUNICIPALITY**

The City's stormwater public education and outreach method is managed through the STormwater Outreach for Regional Municipality (STORM) organization. STORM is comprised of Phase I and Phase II MS4 operators in the greater Phoenix Metropolitan Area. STORM was founded in 2002 largely in response to the Phase II stormwater regulations and was spearheaded by the Phase I MS4 operators as a method of assisting all regulated MS4 operators in the development of their public education programs, among other things. The City played a key role in the early years of the development of the STORM organization and continues to be a major participant and proud supporter to this day.

The traditional approach to public stormwater education and outreach is for individual communities to work independently. STORM encourages a new perspective at a regional level to improve public outreach and education. Members meet monthly to discuss ideas, gather information, and share results of stormwater management tools, techniques, programs, and initiatives.

Benefits of this collaborative effort include:

- Increased public awareness of the impacts of stormwater pollution;
- Consistent message ("Only rain in the storm drain");
- Shared information and experiences;

- Pooled financial resources;
- Protection of the environment; and,
- Improved quality of life.

The City realizes a great economic benefit from their membership investment. For a relatively small contribution, the City receives a significant return in public outreach and education, much more than the City would have gained working independently. Membership in STORM also provides increased buying power that helps achieve bulk pricing on storm water pollution awareness promotional items. Additionally, the ability to cooperatively apply for grants and other financial assistance helps further the common goal of public education to reduce stormwater pollutants and ultimately improve regional surface water quality.

STORM uses a multimedia approach targeting audiences through radio, television, special events, and providing permit information to the general public and the regulated community. These approaches include, but are not limited to, radio and television public service announcements (PSAs), developing brochures and other handouts, and attending public events. Additionally, STORM has created a comprehensive website that includes the copies of outreach materials and PSAs ([STORM, 2011](#); Public Education).

Additionally, the STORM website provides detailed information pertaining to:

- General stormwater requirements ([STORM, 2011](#); Permits - MS4 Programs);
- The general public ([STORM, 2011](#); FAQs and What Can I Do?);
- Education (school) programs ([STORM, 2011](#); Kids Corner);
- Regulated business sectors, including construction ([STORM, 2011](#); Permits); and,
- The organization itself and specific information for each member organization ([STORM, 2011](#); About Us & Contact Us).

STORM operates primarily through fees paid by each municipal member. The choice to target certain audiences and which topics will be included for each fiscal year are decided by the membership through consensus, under which the City has only one vote

in what the targets shall be. However, STORM understands that Phase I MS4s have been directed to target at least two separate groups per reporting year and are aware of the listing of topics that are required to be addressed. As such, STORM has indicated a willingness to adjust their schedule to target at least one category of each audience identified in [Section 2.1.1](#) and [Section 2.1.2](#) and at least one of the topics identified in those sections. The City will attend monthly STORM meetings to voice any concerns over what audiences and topics should be targeted in order to ensure compliance with the 2010 MS4 Permit.

### **2.3 REPORTING**

The 2010 MS4 Permit requires the City to report outreach events, topics, number of people reached, number and type of materials distributed and the target groups in each annual report. STORM creates an annual report for each organizational fiscal year (July 1<sup>st</sup> through June 30<sup>th</sup>; STORM, 2011; About Us, Annual Reports]. In general, this information will be provided in the STORM annual report which will be incorporated into each of the City's annual reports.



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### **3.0 PUBLIC INVOLVEMENT**

The 2010 MS4 Permit requires the City to do the following:

1. Provide and publicize a reporting system to facilitate and track public reporting of spills, discharges or dumping to the storm sewer system (i.e., storm water hotline, web page, etc.) on a continuous basis.
2. Post this SWMP and latest annual report on the City's web site within one (1) year from the effective date of this permit.
3. Provide at least one of the following as fundamental support to its storm water program:
  - An opportunity to involve the public in the City's stormwater program and encourage public participation in monitoring and reporting spills, discharges, or dumping within their communities (such as facilitation of neighborhood watch groups) once per year.
  - An opportunity to participate in the city's stormwater program, such as voluntary litter control activities (e.g., facilitation of Adopt-A-Wash, Adopt-A-Park, and Adopt-A-Street litter control activities) or voluntary erosion control projects as a regular ongoing activity.
  - A household hazardous waste (HHW) program to facilitate proper disposal of used oil, antifreeze, pesticides, herbicides, paints, and other hazardous and toxic materials by city residents (such as scheduled household hazardous waste collection events or operation of full-time disposal facilities) a minimum of two (2) times per year for the first two (2) years of the permit, three (3) times per year for years three (3) and four (4) of the permit, and every year thereafter.

#### **3.1 ENVIRONMENTAL HOTLINE**

The City established an Environmental Hotline as a method to receive calls regarding stormwater as well as other environmental issues [air quality, hazardous material disposal, illegal dumping, and public nuisances (i.e. mosquitoes)]. During normal business hours, calls are answered by personnel trained to understand the nature of the types of calls they receive and can address questions that informational in nature. Where a complaint is filed, the record is turned over to appropriate personnel trained in

code enforcement procedures for inspection. All complaints are logged into the City's Tidemark® database system for tracking purposes.

During off-business hours, callers are provided an opportunity to leave a message which is retrieved and processed the following business day. Emergency call related to stormwater issues received during off-hour operations are directed to the City's public safety dispatch operations.

### **3.2 STORMWATER WEBSITE**

The City maintains a website specifically for stormwater [COM, 2011(c)]. That website has information specific to the City's stormwater program. For more background information pertaining to stormwater education, permits, etc. a link is provided to the STORM webpage. The City will provide a link to this SWMP on this website within ten (10) business days of submittal to this document to ADEQ.

The City will post this document on the website within ten (10) business days of submittal to the ADEQ as a draft document. Once approval of the SWMP is received from the ADEQ, the document will be re-titled as a final document. The City will also provide a link to the most current annual report drafted under the 2010 MS4 Permit within ten (10) business days of submittal of that document to the ADEQ.

These documents would be accessible through City's Environmental & Sustainability Division website at <http://www.mesaaz.gov/environ/>.

### **3.3 HOUSEHOLD HAZARDOUS WASTE PROGRAM**

The City provides four opportunities to City of Mesa residents to dispose of HHW each fiscal year. By providing a proper disposal option to the City's residents, the City has kept this material from potentially being illegally dumped into the MS4, spilled onto City streets, or improperly disposed of into solid waste receptacles.

HHW collection events are held at two different locations, one on the east side of the City, the other on the west. The events alternate between locations to ensure that all residents have adequate access to these events. The City maintains a webpage advertising these events [COM, 2011(b)].

### 3.4 REPORTING

The 2010 MS4 Permit requires the City to report the types of public involvement activities performed, the number of people involved, the number and type of materials distributed (if applicable), and to provide a description of the City's system for public reporting of spills, dumping, discharges, and related stormwater issues.

The City can generate monthly reports detailing the number of non-stormwater releases reported through the Environmental Hotline. This information is incorporated into the City's annual reports as part of the public reporting requirements established under [Section 4.2](#). The City generates reports detailing the results of the HHW events, usually within one month of each event. That information provides details on number of participants (vehicles) and a breakdown of the HHW (gallons) and other materials (pounds) collected. Copies of those reports will be included in the City's annual reports.



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## 4.0 NON-STORMWATER FLOWS TO THE CITY'S MS4

The 2010 MS4 Permit requires the City to:

- Address non-stormwater flows to the City's MS4;
- Respond to reports of non-stormwater flows from the general public; and,
- Conduct dry-weather screening of identified outfalls and field screening points (FSPs).

The City drafted Environmental Code Violation Standard Operating Procedures that provide more details on the how the City addresses these requirements. These procedures also address other environmental program and Mesa City Code requirements.

### 4.1 NON-STORMWATER FLOWS

The 2010 MS4 Permit requires the City to:

- Provide a list of non-stormwater flows that are allowed to be released to the City's MS4.
- Develop criteria to determine whether releases or connections to the City's MS4 are permitted, and to implement a program to effectively make such determinations; and,
- Manage non-stormwater flows to the City's MS4 such as approvals, permits, discharge notifications, or establishing control measures.

#### 4.1.1 Allowable Non-Stormwater Flows

Non-stormwater flows or pollutants that are authorized to be released to the City's MS4 or discharged from the City's MS4 to waters of the United States as provided below:

- Any release of pollutants to the City storm sewer system authorized by any AZPDES or NPDES Storm Water Permit or other AZPDES OR NPDES permit;
- Any release composed entirely of stormwater unless the City identifies and provides written notice to the person that the release has the potential to result in a discharge of pollutants to waters of the United States; and,

- Any release provided in Section 8-5-2(C)(2) of the City’s Stormwater Code (see [Appendix A](#)), unless the City identifies and provides written notice to the person that the manner in which the release has been conducted results in a discharge of pollutants to waters of the United States.

#### **4.1.2 ADEQ Permitted Non-Stormwater Flows**

The ADEQ issues permits to construction operations (CGP), select industrial facilities (MSGP), and for de minimis discharges (DMGP). Each of these permits provide for certain non-stormwater flows. The de minimis sources are most likely to be the types of releases permitted by the ADEQ that will be identified as part of a public report or dry-weather screening processes. Most of these are related to construction or utility operations (i.e. installation, maintenance, and repair of potable water supply systems, well development and maintenance and/or aquifer testing, hydrostatic testing, etc.).

However, under the “Other Category” in the DMGP, the ADEQ allows for the following discharges when the discharge is to an ephemeral or effluent-dependent water (as is the case with the waters of the United States that receive discharges from the City; see [Section 1.3](#)):

- Residential non-contact cooling water (including overflow from residential evaporative coolers or air conditioning condensate);
- Charitable noncommercial car washes when only the exterior of vehicles are being washed, and only biodegradable soaps and/or water are used;
- Building and/or street wash water (where only biodegradable soap and/or water are used, and accumulations of pollutants, if present, have been physically removed prior to conducting washing activities that will result in a discharge); or
- Freshwater swimming pool drainage that has been dechlorinated/debrominated before release from the permittee’s premises. Such pool drainage must be visually clear, colorless, and free of suspended solids, floating material, and debris.

The ADEQ does not require a permit application for these types of discharges as long as the responsible party takes appropriate measures to reduce pollutants. Releases

associated with residential non-contact cooling water and street wash water noted in the above is already provided for in the City’s Stormwater Code ([Appendix A](#)).

The remaining sources (i.e. charitable car washes, building wash water, freshwater swimming pools) are also allowed to be released to the City’s MS4 since they are authorized by the ADEQ to be discharged to the City’s MS4 [see Section 8-5-2(B) of the City’s Stormwater Code as provided in [Appendix A](#)] as long as the discharge is performed in compliance with the DMGP as determined by the ADEQ. However, it has been the City’s experience that releases of swimming pool water to the City’s MS4 rarely, if ever, meet the water quality restrictions imposed by the ADEQ’s DMGP (that is, near pristine conditions). As such, in most cases, swimming pool water is reasonably expected to result in the release of pollutants and is considered a violation of the City’s Stormwater Code.

**4.1.3 Management of Non-Stormwater Flows**

The City does not operate as a permitting agency for stormwater or non-stormwater flows. However, the City has identified the following non-stormwater releases to target through the development of fact sheets that will be available on the City’s website to reduce the pollutants from these sources to the MEP and distributed by City inspection staff where violations are identified.

<b>Targeted Release</b>	<b>Targeted Pollutant(s)</b>	<b>Targeted Areas</b>
Flood Irrigation Water	Sediment	Irrigation over areas that are exposed to bare soils.
Individual Car Washing	Sediment Solvents	Washing heavily soiled trucks. Washing undercarriage or engine compartments.
Street Wash Water	Sediment Oils	Washing dirt covered paved surfaces. Washing paved surfaces with standing liquid oil spills.
Swimming Pools & Hot Tub Water (generally not allowed)	Chlorine Bromine Sediment Bacteria	Flows must remain on site (irrigation usage) go to sanitary sewer, or be pumped and hauled away for disposal.

The City anticipates having this information on the website during year two (2) of the issuance date of the 2010 MS4 Permit.

#### **4.1.4 Private Detention/Retention Basins and Drywells**

Non-stormwater flows to detention basins or retention basins (i.e. surface impoundments) and drywells are regulated under the ADEQ's Aquifer Protection Permit (APP) program [[ADEQ, 2010\(a\)](#)]. Under that program, a clean closure may be required wherever a pollutant [other than that exempted under ARS Title 49, Section 250, Item #23 is released to surface impoundments or drywells to ensure that no migration of pollutants directly to the aquifer (groundwater) or to the vadose zone has occurred. As such, the City will report the release of any pollutant to private surface impoundments or drywell systems to the ADEQ for enforcement under the APP program instead of addressing these non-stormwater releases under the City's Stormwater Code.

#### **4.2 PUBLIC REPORTING**

For stormwater complaints reported to the City, the 2010 MS4 Permit requires the City to do, among other things, the following:

1. Investigate reported releases to identify the source(s) of the release;
2. Respond to 90% of all reports of releases of pollutants to the City's MS4; and,
3. Initiate investigation of 80% of potential releases of pollutants reported to the City within three (3) business days of the date of report.

The City generally responds to all public reports (i.e complaints) within three (3) business days, including those related to stormwater issues. Investigations include responding to the address of the reported issue and assessing conditions at that location. For non-stormwater releases, it may be necessary to conduct a drainage area investigation to identify the source as described in [Section 4.4.1](#). On rare occasions, additional investigative approaches described in [Section 4.4](#) may also be required.

#### **4.3 DRY-WEATHER SCREENING PROGRAM**

The 2010 MS4 Permit requires the City to perform dry-weather screening inspections in accordance with field screening procedures set forth at 40 CFR 122.26(d)(1)(iv)(D), and the practices and measurable goals specified in Appendix A of the 2010 MS4 Permit.

The 2010 MS4 Permit requires the City to

1. Maintain an inventory or map of all major outfalls and FSPs identified by the City as “priority” for illicit discharges or other non-stormwater flows.
2. Inspect the “priority” outfalls and FSPs once each year where a priority outfall and FSP would meet all of the following conditions:
  - Discharge to an impaired or an outstanding Arizona water or other perennial water;
  - Have been a source of illicit discharge in the past five (5) years (unless the source has been eliminated or has been shown not to be a significant source of pollutants); and
  - Are identified by the City as “priority” for illicit discharges or other non-stormwater flows.
3. Inspect 20% of the remaining major outfalls and FSPs each year.

The City discharges stormwater to two distinct segments of the Salt River and to the EMF. To the City’s knowledge, neither of these structures has been identified as being an impaired water, outstanding Arizona water, or perennial water body. Dry-weather screening activities conducted under the USEPA 1997 Phase I Permit at identified outfall and FSP locations did not result in the determination a release of significant pollutants to either the City’s MS4 or a water of the United States (see City of Mesa stormwater annual reports 1997 through 2010). Therefore, as of the date of the SWMP, no priority outfalls have been identified by the City.

#### **4.3.1 Outfall and Field Screen Point Locations**

The City has identified fourteen (14) distinct drainage areas. These distinct drainage areas are defined, in general, by highways irrigation canals, and flood control structures that generally create hydrological barriers; through, under, or over which few connections, if any, exist. The drainage area map is provided in [Appendix B](#).

Outfall locations were determined as point source locations that “discharges” stormwater from the City’s MS4 directly to a water of the United States (see [Section 1.3](#)). FSPs were determined as point source locations that “releases” stormwater from the City’s MS4 to another regulated MS4 operator’s infrastructure where the same

release then either directly discharges to a water of the United States, or where the City determines there is a reasonable probability of the release discharging to a water of the United States.

The 2010 MS4 Permit requires the City to provide a map or inventory of major outfalls and FSPs (with latitude and longitude and associated drainage areas). The general locations of the City's outfall and FSP locations are provided in [Appendix B](#). An inventory of the outfall and FSP locations, including latitude and longitude, is provided in [Appendix C](#).

#### **4.3.2 Existing Dry-Weather Flows**

The 2010 MS4 Permit requires the City to re-evaluate known dry-weather flows not eliminated or investigated in the past five (5) years. While the USEPA's 1997 Phase I Permit issued to the City was in an "administratively continued" status since 2002, the City continued to conduct dry-weather screening activities at outfall and FSP locations identified as part of that permit at a frequency that resulted in 100% of all locations being screened during each five year period. Dry-weather screening activities conducted at these locations did not result in the determination of a release of significant pollutants to either the City's MS4 or a water of the United States (see City of Mesa stormwater annual reports 2005 through 2010).

#### **4.3.3 Prioritization and Schedule**

The 2010 MS4 Permit requires the City to provide a schedule and assign priorities for inspecting outfalls and FSPs. The City has scheduled outfall and FSP inspections based on drainage area, the proximity of the drainage areas to one another, and targeting those drainage areas that contain actual outfalls (i.e. discharge directly to a water of the United States) and/or FSPs in closest proximity to a water of the United States.

The order the outfalls and FSPs are to be inspected in each drainage area is roughly established by sequencing order of each asset within that drainage area (example: Drainage Area 5, assets: 501, 502, 503, etc.). In taking this approach, the City identified four target areas as provided in the following subsections. Also included below a subsection addressing priority outfalls.

#### 4.3.3.1 Target Area A

Target area A includes outfalls and FSPs in drainage areas 11, 9, 8, and 2. The City will start in drainage area 14 (southernmost) and work their way north (up-gradient) through the EMF (i.e. drainage areas 9 and 8) and to drainage area 2, with outfalls that drain directly the Salt River. Due to the number of outfalls and FSPs in this target area (approximately 90), the City anticipates they will have evaluated 100% of the City's "outfalls" and the FSPs associated with these drainage areas, by the end of the third year permit term.

#### 4.3.3.2 Target Area B

Target area B includes FSPs located in drainage areas 1 and 4, since these FSPs are in close proximity to the Salt River and discharge either through pipe-to-pipe connections or through concrete-lined channels (offering little treatment).

#### 4.3.3.3 Target Area C

Target area C includes FSPs located in drainage areas 5 and 14 since the closest FSP location in each of these drainage areas is approximately 10,000 feet from the Salt River.

#### 4.3.3.4 Target Area D

Target area D includes FSPs located in drainage area 6 and 11 since the closest FSP location in each of these drainage areas is approximately 20,000 feet from the Salt River and the EMF, respectively. The only remaining drainage area with an FSP is drainage area 7, which only has one FSP and can be inspected as part of the inspection sequence for drainage area 5 or 6.

#### 4.3.3.5 Priority Outfalls

Where the City identifies illicit discharges or other non-stormwater flows at any "outfall" during the initial field screening inspection process, the City will identify these as "priority outfalls" and inspect them on an annual basis in accordance with the 2010 MS4 Permit conditions.

#### **4.3.4 Dry-Weather Screening Methods**

The 2010 MS4 Permit requires the City to visually inspect each outfall and FSP for flow, trash, suds, and odor; collect a sample for dry-weather screening where the flow rate is found to be sufficient; and, re-inspect within 24 hours where flow was present. In addition, 40 CFR 122.26 requires the City to also visually inspect for color, turbidity and the presence of oil sheen or surface scum; and, re-inspect between four (4) and 24 hours where flow was present.

The City will collect samples for dry-weather screening analysis where significant flow exists (generally greater than 0.3 gallons per minute). Dry-weather screening samples are collected as discrete (i.e. grab) samples. For quantitative analyses, the City purchased the HACH Company Storm Water Test Kit Model SW-1 for the analysis of pH, total chlorine, total copper, total phenol, and detergents. The City purchased a HACH Company 2100Q Portable Turbidimeter to measure turbidity of dry-weather screening samples. For qualitative analyses, parameters are estimated based on visual observations. A description of the methods used for quantitative analyses, including the name of the manufacturer of the test method along with the range and accuracy of the test for field analysis, is provided in [Appendix D](#).

#### **4.3.5 Dry-Weather Investigations**

The 2010 MS4 Permit requires the City to conduct dry-weather investigations as provided below:

1. Investigate dry-weather flows identified during dry-weather screening activities to identify source(s) of the dry-weather flow;
2. Initiate investigation of 80% of dry-weather flows identified as part of the dry-weather screening process within three (3) business days of the date of detection;
3. Initiate investigation immediately upon detection of a release identified as part of the dry-weather screening process that contain obvious indicators of pollutants (such as sewage, sudsy water, colored waters, chemical or petroleum odors, etc.);
4. Develop criteria (thresholds) to indicate when a release is illicit and follow-up investigations are necessary.

The City's dry-weather investigation process consists of conducting an initial dry-weather screening inspection and where necessary a re-inspection (i.e. 4 to 24 hours after initial inspection). Dry-weather flows are determined to be a source of significant pollutants if either of the conditions provided below are observed.

- Visual observation indicates the current dry-weather flow itself is a source of significant pollutants (i.e. trash in flow, suds in flow, strong odors, off color, and significant oil sheen or surface scum); or,
- The dry-weather screening field analysis indicates the dry-weather flow is a significant source of pollutants as provided in monitoring thresholds in [Appendix D](#).

#### 4.3.5.1 No Flow Present during Initial Inspection

Where the initial dry-weather screening inspection indicates flow is not present; no re-inspection or detailed investigation pursuant to [Section 4.4](#) will be required.

#### 4.3.5.2 Flow Present without Significant Pollutants

Where the initial dry-weather screening inspection indicates flow is present and is determined not to be a source of significant pollutants, and where no dry-weather flow is identified during the subsequent re-inspection; no detailed investigation pursuant to [Section 4.4](#) will be warranted.

Where the initial dry-weather screening inspection indicates that flow is present and not a source of significant pollutants, and where dry-weather flow is identified during re-inspection and also determined not to be a source of significant pollutants; a detailed investigation pursuant to [Section 4.4](#) will be conducted within three (3) business days of the initial inspection.

#### 4.3.5.3 Flow and Significant Pollutants Present

The City will cease dry-weather screening operations during either the initial inspection or re-inspection processes, and immediately begin to conduct a detailed investigation pursuant to the methods described in [Section 4.4](#) to identify the source of the dry-weather flow where any dry-weather flow is determined to be a source of significant pollutants.

#### **4.3.6 Tracking**

Dry-weather screening and associated investigations are documented on the Dry-Weather Screening Report Form specific for each location. The City is in the process of creating a database with the functionality to retrieve data and generating reports required for the annual report and to better track results at these locations.

#### **4.3.7 Training**

The 2010 MS4 Permit requires the existing employees directly involved with stormwater management activities, including dry-weather screening and associated investigations, be trained at least once every two (2) years and to provide an opportunity for new employee training at least one (1) time per year.

As such, all City staff who conducts these types of operations must meet the following requirements:

- Review the procedures detailed in the Environmental Code Violation Standard Operating Procedures;
- Have knowledge of:
  - Ordinances, rules, and regulations governing stormwater discharges, particulate pollution, and hazardous materials;
  - Principles and practices for field monitoring protocols, sample collection, preservation, analysis, and documentation requirements;
  - Occupational and safety precautions at industrial and construction work sites (position requirement; and,
- Have a basic knowledge of chemicals on human and ecological systems (position requirement).

Select staff are required to remain current on stormwater regulatory requirements through reviewing regulations; attending seminars; participating in stakeholder meetings, public meetings, and other networking group events; and receiving newsletters and information through distribution lists related to stormwater programs.

Additionally, and in order to meet the training requirements associated with the 2010 MS4 Permit, all existing City staff who conducts dry-weather screening and associated

investigations shall be provided a training opportunity by supervisory personnel at least once a year. Where new employees are hired, a training opportunity shall be provided within one year of service. All training shall be documented by the City in the form of retaining a sign-in sheet or other form of documentation including the date these training opportunities were provided and the staff attending the training.

#### **4.4 DETAILED INVESTIGATIONS**

The 2010 MS4 Permit requires the City to conduct investigations and to describe methods (e.g. sampling, data collection and research, and storm sewer inspections) to identify sources of dry-weather flows.

The goals of conducting detailed investigations are to identify the source of a release of non-stormwater to the City's MS4 that is not immediately obvious in nature, to determine whether the release is from an allowable source and being conducted in a manner that is not a violation of the City's Stormwater Code, or if it is from a source not allowed under that code. Detailed investigations can take the form of conducting drainage area, storm drain network, or subsurface investigations. In some cases, additional monitoring may be required.

##### **4.4.1 Drainage Area Investigations**

Drainage area investigations are conducted to identify surface flows. This method is used for above ground infrastructure (i.e. streets, channels, etc.). This is generally the primary approach used for non-stormwater flows reported by the public (see [Section 4.2](#)) and non-stormwater flows in above ground infrastructure included as part of the dry-weather screening program. This approach is also used where dry-weather screening of subsurface infrastructure indicates flow is present for the immediate area and later after the flow has been tracked to a particular drainage area through storm drain network investigations (see [Section 4.4.2](#)). This type of investigation consists of an evaluation of surrounding developed areas that potentially drain to the infrastructure being investigated.

##### **4.4.2 Storm Drain Network Investigations**

Storm drain network investigations involve inspecting subsurface infrastructure in order to localize the drainage area associated with the source of the flow. This approach is

used where dry-weather screening of subsurface infrastructure indicates flow is present and a source is not readily identifiable in the immediate area using the drainage area investigative approach describe in [Section 4.4.1](#).

This is accomplished by inspecting manhole accesses within the City's MS4 network to assess for presence of flow, chemical, and other physical indicators in an attempt to isolate the pipe segment through which the release is occurring. The investigation will generally start at the first manhole up-gradient of the outfall or FSP and continue further up-gradient through the system until the source is identified, where possible.

#### **4.4.3 Subsurface Investigations**

If the above investigation methods fail to identify a source of a release, an investigation of the entire subsurface infrastructure (generally storm drain main or lateral pipes) may be used to determine if a connection(s) exists that may not be identified on the City's stormwater mapping system. These types of investigations generally involve conducting a video survey of the isolated pipe section.

#### **4.4.4 Additional Monitoring**

The 2010 MS4 Permit requires the City to identify what conditions must be met and when decisions are made to collect samples of dry-weather flows for laboratory analytical analysis. Where the City has been unable to determine the source of the flow using the other methods described above and the flow exceeds the monitoring thresholds in [Appendix D](#) at any point along the investigation, the City may collect samples from the non-stormwater flow for laboratory analytical analysis. Only those parameters that are suspect in the dry-weather flow will be analyzed.

### **4.5 ENFORCEMENT**

The 2010 MS4 Permit requires the City to:

1. Follow enforcement procedures that incorporate escalating actions for violations of the City's Stormwater Code;
2. Take timely and appropriate actions to eliminate identified sources of releases of pollutants to the City's MS4; specifically, initiating corrective actions and enforcement within sixty (60) days of the initial inspection/violation; and,

3. Resolve eighty percent (80%) of all cases within one (1) year calendar year of initial enforcement action.

The City's Stormwater Code has been revised to make to be consistent with other sections of the Mesa City Code, to make enforcement more consistent at the inspector level, and to ensure compliance with the 2010 MS4 Permit requirements. The City developed Basic Case Enforcement Process Work Instructions to provide a general schedule for obtaining compliance with stormwater violations, as well as other sections of the Mesa City Code. A copy of the Basic Case Enforcement Process Work Instructions is included in [Appendix E](#).

#### **4.6 REPORTING**

The 2010 MS4 Permit requires the City to report annually the following information as it pertains to the City's public reporting requirements:

1. Description of prevention activities.
2. Description of the City's system for public reporting of spills, dumping, discharges, and related stormwater issues.
3. Overview of identified sources of illicit releases, types of illicit connections identified, and significant corrective or enforcement actions.
4. Description of municipal employee training dates and topics.
5. Number of training sessions (on non-stormwater discharges).
6. Number of employees attending training.
7. Number of release violations identified.
8. Number of release violations eliminated.
9. Number of storm drain cross connection investigations.
10. Number of connection violations detected.
11. Number of connection violations eliminated.
12. Number of corrective or enforcement actions initiated within 60 days of identification.
13. Percent of cases resolved within one (1) calendar year of original enforcement action.
14. Number of release violation reports received from public.
15. Percent of release violation responses.

16. Percent of responses initiated within three (3) business days of receipt.

The 2010 MS4 Permit requires the City to report annually the following information as it pertains to the City's dry-weather screening requirements:

1. Description of dry-weather screening training dates and topics.
2. Description of the dry-weather screening program and investigations.
3. Description of outfall and FSP inventory.
4. Description of dry-weather screening tracking system.
5. Description of inspection and screening procedures and significant findings.
6. Total number of outfalls or FSPs inspected.
7. Number of 'priority outfalls' and priority FSPs identified to date.
8. Number of 'priority outfalls' and priority FSPs inspected.
9. Number of outfalls and FSPs actually sampled.
10. Number of dry weather flows detected.
11. Number of dry weather flows investigated.
12. Number of release violations identified.
13. Number of release violations eliminated.
14. Amount of storm drain inspected as part of the investigation process.
15. Number of storm drain cross connection investigations.
16. Number of connection violations detected.
17. Number of connection violations eliminated.
18. Number of corrective or enforcement actions initiated within 60 days of identification.
19. Percent of cases resolved within one (1) calendar year of original enforcement action.
20. Number of releases reported by the public at outfall or FSP locations.
21. Percent of responses to reports by the public of illicit discharges at outfalls or other FSPs.
22. Percent of responses to reports by the public of illicit discharges at outfalls or other FSPs initiated within three (3) business days of receipt.

## 5.0 MUNICIPAL FACILITIES

### 5.1 SPECIFIC FACILITIES

The 2010 MS4 Permit requires the City to develop an inventory, database, list, or map of specific facilities identified in the permit and described below within two (2) years after the date of permit issuance (i.e. August 30, 2012).

- City parks, golf courses, and other recreational facilities (where landscape maintenance, herbicide, pesticide, and fertilizer application, and waste management are implemented);
- Public swimming pools (pool maintenance/repair and chemical storage);
- Water treatment plants;
- Public septic systems (sanitary waste handling);
- Fire stations and other city fleet maintenance facilities (vehicle washing and maintenance, chemical handling, waste storage);
- POTWs and sludge handling areas; or,
- Material and waste storage and processing facilities, including oil collection facilities.

The 2010 MS4 Permit also requires the City to review potential pollutants and other factors of risk at these facilities and prioritize them for an on-site review to determine whether they may have a potential to cause a substantial pollutant load to the City's MS4 by the end of year two (2) of the issuance date of this permit (i.e. August 30, 2012).

The prioritization process must take into consideration the following:

- Quantity and location of materials used and/or stored at the facility;
- Potential for exposure to stormwater; and
- Potential to discharge a substantial pollutant load to the MS4 or to a water of the U.S.

Facilities that are already covered under the MSGP or other AZPDES permits may be ranked as low priority. Additionally, the City is required to inspect each of the “high risk” facilities biennially beginning in year three (3) of the permit term (i.e. September 2013).

## **5.2 MATERIAL HANDLING & SPILL RESPONSE**

The 2010 MS4 Permit requires the City to properly handle, store, transport, and dispose used oils and other hazardous or toxic materials and wastes associated with municipal operations and facilities, including practices to minimize exposure of these materials to precipitation. In doing this, the permit requires all City facilities (excluding offices and administrative buildings) that handle, store, or otherwise use hazardous materials where any single container exceeds five (5) gallons and where such materials are exposed or have the potential to be exposed to stormwater to operate under a site-specific materials handling and spill response procedures manual and to have that manual readily available at the facility.

The 2010 MS4 Permit also requires the City to conduct an assessment of these facilities to ensure procedures are in place and effective and to review the site specific materials handling and spill response procedures every two years (biennially). That assessment and review must include the participation of personnel with stormwater expertise to provide feedback relating to any potential stormwater concerns.

The 2010 MS4 Permit does not provide a timeframe for compliance with these requirements, but the City will conduct initial assessments of these facilities concurrent with those identified in [Section 5.1](#), since the City believes many of the specified facilities may also require the development of these types of plans.

## **5.3 FACILITY IDENTIFICATION**

The City has identified approximately one-hundred (100) facilities that are specifically identified in [Section 5.1](#) and/or have the potential to meet the hazardous materials threshold limits identified in [Section 5.2](#). A preliminary listing of these facilities is included in [Appendix F](#). The City has hazardous materials and hazardous waste programs for City facilities and from that information the City anticipates approximately fifteen (15) of these facilities will require a site-specific materials handling and spill response procedure manual that will include a focus on stormwater issues. Initial

inspections of these facilities will take place during year two (2) of the issuance date of this permit (August 30, 2011 through August 29, 2012).

#### **5.4 SITE-SPECIFIC PLANS**

In general, the site-specific materials handling and spill response procedure manuals will address the following topics, where applicable:

- Container Management
- Pesticide Application Program
- Paint Use Procedures
- Illegally Dumped Hazardous Materials
- Battery Protocol
- Thermostat and Mercury Containing Equipment
- Solvent/Parts Washer Use
- Used Lamp Protocol
- Used Oil & Oil Debris Program
- Pollution Prevention Program
- Petroleum Contaminated Soil (PCS)
- Purchasing Policy
- PCB Policy
- Disposal and Recycling of Hazardous Waste
- Stormwater Management

Based on the results of the re-assessment of facilities requiring site-specific materials handling and spill response procedure manuals, these manuals will be revised as necessary.

#### **5.5 REPORTING**

The 2010 MS4 Permit requires the City to report annually the following information as it pertains to the City's municipal facility reporting requirements:

1. Description of the status of identification and inventory of these facilities.
2. Overview of inspection findings (i.e., number inspected, number with follow-up actions needed, significant findings).

3. Description of activities needed and performed in response to inspections (control measures implemented).
4. Description of the identification and tracking of municipally-owned and operated facilities subject to permitting under the Multi-Sector General Permit (MSGP).
5. Status of all inventories, maps, and map studies required by the permit to be developed including completion dates.
6. Number of training events.
7. Number of staff trained.
8. Total number of facilities on inventory.
9. Date identification of 'higher risk' facilities completed.
10. Date prioritization of municipal facilities completed.

## **6.0 STORMWATER SYSTEM MONITORING & MAINTENANCE**

The City drafted Standard Operating Procedures for City Stormwater Infrastructure Operations Activities that provides more details on the how the City addresses most of the requirements associated with this section of the SWMP. Those procedures also address other environmental requirements associated with these operations.

### **6.1 DRAINAGE SYSTEM INVENTORY AND/OR MAPS**

The 2010 MS4 Permit requires the City to provide as attachments:

1. Drainage system maps;
2. Map or inventory and location of structural control facilities (i.e. detention and retention basins, conveyances, and major infiltration structures);

The City maintains Land and Utilities maps that are continually updated for use by City employees. The application provides the ability to view and print Land, Water, Gas, Sewer, or Storm Drain maps for each quarter section of the City. The City also maintains this information in ArcGIS software which is available for use by select City personnel.

The City considers utility infrastructure to be confidential and for use by City personnel only. As such, the City cannot supply this information as an attachment to this document. The City would be able to supply this information to the ADEQ upon official request and only under a signed confidentiality agreement or provide a presentation of this information the ADEQ upon request.

### **6.2 MAINTENANCE PRIORITIES AND SCHEDULE**

The 2010 MS4 Permit requires the City to:

1. Identify priority areas of the MS4 drainage system for inspection; and,
2. Inspect priority areas at least once a year.

The City determines priority areas for the inspection of MS4 drainage system components based on the following:

- Areas historically subject to localized flooding;
- Areas where health and safety concerns for citizens exist;
- Areas where standing water issues are identified;
- Areas where issues with erosion are identified; and,
- Areas that the City receives a complaint.

The City inspects priority areas prior to a storm event (where anticipated storms are identified), during the storm event, and after the event has past. As such, these areas are visually monitored on an annual basis at a minimum.

### **6.3 DRAINAGE SYSTEM MONITORING & MAINTENANCE**

The 2010 MS4 Permit requires the City to:

1. Develop a methodology for determining areas of the MS4 drainage system that are a priority for inspection;
2. Identify priority areas of the MS4 drainage system for inspection;
3. Inspect priority areas at least once a year;
4. Conduct routine visual monitoring of MS4 system components to identify the presence of illicit discharges, excess sediment, litter, debris, or other pollutants (including floatables) that may obstruct flow or be transported in stormwater, and to determine maintenance needs; and,
5. Address maintenance needs identified as deficient by inspections, monitoring, or other reporting (i.e. complaints)

#### **6.3.1 Detention & Retention Basins**

City detention and retention basins that are dual use (also used as a City park) are routinely maintained by City contactors at least weekly, this includes the maintenance of storm drain inlets and catch basins. Other detention or retention basins are routinely maintained at least 30 times per year. City inspection personnel conduct visual inspections of detention and retention basins at least once a week to ensure that services provided by their contractor are adequate.

Where deficiencies are noted by City inspection personnel, the contractor is contacted to have the deficient areas addressed. This is generally performed the same day when possible, or at a minimum, the following working day. Where maintenance to a drywell or the removal of sediment at a basin is required, other City department staff are contacted for assistance. This service is generally provided within one working day.

### **6.3.2 Storm Drain Inlets & Catch Basins**

The City activated its first vacuum (recovery) tanker truck for the purposes of maintaining stormwater infrastructure and assigned two full-time employees (collectively, truck and employees are referred herein as “stormwater maintenance crew”) near the start of fiscal year 2008. The goal of the stormwater maintenance crew is to conduct routine inspections of 25 catch basins per work day as part of their operations. The stormwater maintenance crew has all the equipment necessary to address maintenance needs of the storm drain inlet and catch basin assets at the time of inspection. Any material over the storm drain inlet or in the catch basin will be removed by the stormwater maintenance crew at the time of inspection.

Storm drain inlets and catch basins at City detention and retention basins are maintained and visually inspected in conjunction with the inspections of the basins themselves. Where deficiencies are noted by City inspection personnel, the contractor is contacted to have the deficient areas addressed. This is generally performed the same day where possible, or at a minimum, the following working day. City inspection personnel may contact the stormwater maintenance crew to provide maintenance services where special machinery is required to address any major issues with these structures.

### **6.3.3 Storm Sewer Lines**

The City conducts routine visual monitoring of storm sewer lines at the same time that the associated catch basins are inspected. Routine visual monitoring is conducted at the location where the storm sewer line connects to the catch basin. In most cases the stormwater maintenance crew has all the equipment necessary to address maintenance needs of the associated storm sewer lines at the time of inspection. Additional equipment, such as a down-hole camera truck, may be required to evaluate the

conditions of storm sewer lines. Other City department personnel or contractors are contacted to provide this type of service.

#### **6.3.4 Open Channel Structures**

Open channel drainage structures owned by the City are visually monitored annually, or more frequently on an as needed basis. When deficiencies are identified the response may take a few days in order to bring in appropriate equipment; however, the goal is to address these issues within one business day.

### **6.4 STREET AND PARKING LOT SWEEPING**

The 2010 MS4 Permit requires the City to:

1. Develop a rationale for determining sweeping frequency;
2. Conduct routine visual monitoring to identify deficiencies;
3. Address maintenance needs identified as deficient by routine visual inspections, monitoring, or other reporting (e.g. complaints); and,
4. Evaluate street sweeping frequency at least once a year.

Several City departments manage certain portions of the City's street sweeping program based on usage (i.e. arterial and residential streets; access roadways and parking areas at City parks; and, access roadways and parking areas at other City facilities, including recreational areas).

#### **6.4.1 Residential Streets**

Residential street sweeping operations are scheduled around other regular events (e.g. recycling and trash service schedules). Residential streets are generally swept by City crews during daytime hours. Residential street sweeping operations are conducted approximately each month (every four weeks). The City uses an industry database (RouteSmart) to schedule City residential street sweeping operations.

The City can monitor residential street sweeping operations through a "virtual" assessment using the Zonar Automatic Vehicle Location (AVL) system which has the capability to identify routes being completed by each sweeper as well as identifying when a street sweeper's brooms and water pump are being operated during street

sweeping process. The AVL virtual inspection process ensures that assignments are completed on a timely basis and performed appropriately.

#### **6.4.2 Arterial Streets**

Arterial streets are generally swept through the services of a City contractor. Most arterial streets are swept on a weekly basis between Sunday night and Wednesday night. In addition, some non-arterial streets that serve industrial areas where on street parking limits access to City sweepers during daytime hours are swept by the contractor during evening hours. The remaining arterial streets and limited non-arterial streets, most in areas that have not been developed and/or have no curb and gutter system, are swept by the contractor a minimum of three times a year, or on an as needed basis.

City inspectors conduct spot inspections of arterial street sweeping activities each business day, focusing on areas that are known to be problematic. Where deficiencies are noted, the contractor is notified and the areas are re-swept as a priority the following evening.

#### **6.4.3 Access Roadway & Parking Areas at City Facilities**

City contractors provide lot sweeping and landscaping services for most City facilities. The landscaping services include, among other things, cleaning and trash pick-up of parking and access roadways, but do not necessarily use a street sweeper. The use of street sweepers are generally limited to larger facilities.

In general, City facilities that are more accessible to the public are maintained more frequently than facilities that serve only City vehicles (i.e. restricted access areas). The City conducts routine visual monitoring of lot sweeping and landscape services to ensure the contractor's services have been performed to meet industry standards and contract specifications. These inspections are conducted based on daily work reports received from the contractor detailing the scope of work completed for each day.

#### **6.4.4 Access Roadways & Parking Areas at City Parks & Basins**

Access roadway and parking area sweeping operations at the City's detention and retention basins (i.e. City parks and other basins) are managed under a landscaping contract. The frequency of any sweeping (manual or mechanical) of these areas is

based on results of the associated detention and retention basin inspections (see [Section 6.3.1](#)).

## **6.5 STREET REPAIR PRACTICES**

The City's 2010 MS4 permit requires the City to develop a "control measure field manual" that will:

1. Identify control measures for maintenance activities performed by the City; and,
2. Implement control measures into maintenance operations, specifically for road maintenance activities.

The City drafted a Standard Operating Procedures for City Field Operations Activities that provides more details on the how the City addresses the requirements associated with these requirements. Street repair operations, including service cuts, patch and repair, crack seal, sealcoating, and striping were among the target operations addressed in these procedures. These procedures also addresses other environmental requirements associated with these operations.

## **6.6 REPORTING**

The 2010 MS4 Permit requires the City to report the following information in their annual reports:

- Miles of MS4 drainage system prioritized for inspection;
- Miles of MS4 drainage system visually inspected;
- Linear miles of MS4 drainage system cleaned;
- Number of catch basins cleaned;
- Number of retention/detention basins cleaned;
- Number of miles for street and lot sweeping activities; and,
- Amount of waste collected from street and lot sweeping (reported in pounds, gallons, etc.).

### **6.6.1 Detention/Retention Basins, Catch Basins, and Street Sweeping Operations**

City personnel prepare monthly reports detailing the maintenance of drainage system. Those reports provide the number of detention/retention basis cleaned, number of catch basins cleaned, and number of miles of streets swept.

### **6.6.2 MS4 Drainage System Miles**

The City has not recorded information pertaining to linear structures (i.e. storm main pipes, storm lateral pipes, unlined channels, lined channels, and culverts) in the form of number of miles, or feet for that matter, for the purposes of prioritizing for inspection, inspecting, or cleaning purposes. The City is in the process of assessing the actual miles associated with these structures and incorporating those into their maintenance scheduling database. The City anticipates that this process will be complete during the second permit year (August 30, 2011 to August 29, 2012). As soon as this process is complete, this information will be included in the annual reports with an indication of a date that information was first able to be tracked.

### **6.6.3 Street Sweeping Waste**

Under the City's current street sweeping contract, the contractor reports the number of curb-line miles swept. The City will estimate the amount of debris removed by the contractor based on the results of a pilot test conducted by Transportation and their contractor until such time that the contract expires. The new contract will require the contractor to report the curb-line miles as well as the amount of debris removed. This will require the selected contractor to manage waste removed from City streets separate from all other sources; for example, private parking lots, street sections in other jurisdictions. The City estimates the cost of incorporating the amount of debris removed (actual) into the annual report at \$100,000 per year.

### **6.6.4 Lot Sweeping Waste**

The City will estimate the amount of debris removed from access roadways and parking lots from sweeping operations since the accuracy of this data would not be as accurate given the fact that the City's landscape contractors remove debris from these surfaces through other services provided (i.e. cleaning and trash pick-up). The material collected as part of these services is combined with that collected from the landscaped areas (i.e.



grass cutting, trimmings, etc), and generally represents a small contribution to the overall mass removed.

## **7.0 PRIVATE COMMERCIAL & INDUSTRIAL FACILITIES**

The City drafted Commercial & Industrial Facility Inspection Standard Operating Procedures that provides more details on the how the City addresses the requirements associated with the inspections of private commercial and industrial facilities. Those procedures also address other environmental and Mesa City Code requirements.

### **7.1 COMMERCIAL FACILITY INSPECTIONS**

The 2010 MS4 Permit requires the City to:

1. Develop and maintain an inventory, list, or database of commercial facilities that have the potential to discharge pollutants to the City's MS4.
2. Maintain a system to collect and update this information on a routine basis.
3. Develop an inspection and prioritization program.
4. Inspect other commercial sources (or category of sources) which the City determines to be a significant source of pollutants.
5. Verify implementation and maintenance of stormwater management practices in compliance with the City's Stormwater Code.
6. Identify and eliminate potential discharges of pollutants to the system.
7. Conduct follow-up inspections as necessary.

#### **7.1.1 Commercial Facility Inventory**

The City inspects commercial facilities that required a grease removal device (GRD) as part of the City's industrial pre-treatment fats, oils, and greases (FOG) program. These types of facilities are required to submit an industrial pretreatment survey to the City to determine the type of business (i.e. industrial, commercial, manufacturing, restaurant etc.) and the nature of the facilities discharges to the City's sanitary sewer. This survey assists the City in determining what, if any, sanitary sewer pretreatment devices are required. These facilities are entered into a database and tracked for inspection purposes. During these inspections, City inspectors also conduct a stormwater assessment associated with the operations of these facilities.

### **7.1.2 Commercial Facility Inspections**

The City inspects approximately ninety (90) commercial facilities on a monthly basis as part of the FOG Program. Inspections of commercial facilities are based on a geographical distributional approach. It should be noted that this approach is subject to change depending on inspector work load.

Commercial inspections are also conducted in response to complaints from other City staff and the general public. Priority is given to complaint responses, which are investigated without regard to the geographical distribution approach. Commercial inspections are conducted by City inspectors trained to identify stormwater compliance issues related to these types of facilities.

The 2010 MS4 Permit requires the City to identify the types of commercial facilities that are “high risk” of contributing pollutants to the City’s MS4. Though all commercial facilities inspected under the FOG program are assessed for stormwater compliance, those that pose a higher risk include, but are not limited to:

- Auto Repair Shops
- Gasoline Stations
- Grocery Stores
- Restaurants
- Car Washes; and,
- Movie Theaters

## **7.2 INDUSTRIAL FACILITY INSPECTIONS**

The 2010 MS4 Permit requires the City to:

1. Develop and maintain an inventory, list, or database of industrial facilities that have the potential to discharge pollutants to the City’s storm sewer system.
2. Maintain a system to collect and update this information on a routine basis.
3. Develop an inspection and prioritization program.
4. Inspect at least 50 industrial facilities (SARA Title III and MSGP facilities) each year during the permit term.

5. Inspect other and industrial sources (or category of sources) which the City determines to be a significant source of pollutants.
6. Verify implementation and maintenance of stormwater management practices in compliance with the City's Stormwater Code.
7. Identify and eliminate potential discharges of pollutants to the system.
8. Confirm permit coverage to discharge stormwater associated with industrial activity, as applicable.
9. Conduct follow-up inspections as necessary.

### **7.2.1 Identifying Industrial Facilities**

As part of the City's 1997 Phase I MS4 Permit, the City identified all industrial facilities that met the requirements established under 40 CFR 122.26(d)(2)(iv)(C) [Superfund Amendments and Reauthorization Act (SARA) Title III facilities]. Under that permit, the City conducted an annual review of the USEPA Toxic Release Inventory (TRI) database in order to keep the City's inventory updated. The City added newly identified industrial facilities into the industrial inspection process, and removed any facilities that were known to no longer operate within the City's jurisdiction. At any point of time, the City's industrial inventory ranged from approximately 25 to 50 facilities.

The City contracted InfoUSA, a private customer listing group commonly used by other regulated Phase I MS4 operators (i.e. City of Phoenix, City of Tempe), to provide information on facilities subject to the MSGP based on Standard Industrial Classification (SIC) codes. The City will continue to conduct an annual review of the TRI database in order to keep the City's inventory updated.

The City redeveloped their Industrial (Private) database to include new information supplied by InfoUSA and to incorporate the most recent listing of TRI facilities. This information increased the City's industrial facility database to over 750 facilities. A listing of facilities currently in the City's industrial database is provided in [Appendix G](#).

### **7.2.2 Inspection Prioritization**

The City believes that the inspection of industrial facilities should not be conducted in a manner that provides a financial advantage to other industrial owners/operators in the same business [i.e. industrial sector, SIC, or North American Industry Classification

System (NAICS)]. As such, with the exception of complaint inspections, the City's prioritization system will target all operations that are similar in nature, or grouped within a particular sector, SIC, or NAICS so that all such facilities are inspected within the same timeframe (approximately within a 12 month period) to ensure that no operational advantage is provided to any industrial segment or individual company.

The following criteria are used to determine categories and establishing a prioritization for conducting industrial inspections.

1. Complaints.
2. Newly identified TRI listed facilities that have not been previously inspected.
3. Current TRI listed facilities that were not previously inspected within the last 5 years.
4. Industrial facility sectors, SICs or NAICS groups that have a reasonable potential to conduct dust generating operations and that may require permit coverage for such operations (i.e. unlikely to be no-exposure facilities).
5. Other industrial facility sectors, SICs or NAICS groups that the City determines may be a significant source of pollutants.

### **7.2.3 Types Of Inspections & Notification Procedure**

The inspection notification procedure is different depending on whether this is the first requested inspection, a follow-up inspection, or a complaint inspection.

#### **7.2.3.1 Initial Inspections**

The City provides notification to industrial facilities in advance to determine if they are still in operation at that location and to ensure the facility will have knowledgeable personnel available.

The following steps detail the initial inspection process:

1. **Initial Notification:** The City mails a certified *Request to Inspect* letter via return receipt to the owner/operator of the facility with a request that they contact within twenty (20) calendar days to schedule an inspection.

2. **Follow-Up Notification:** If no response is received within the date identified in the initial contact letter, the City will attempt to contact the facility via telephone to schedule an inspection.
  3. **No Contact\*:** If the City is unable to contact the owner/operator within thirty (30) calendar days, the City will conduct an unannounced inspection of the facility at their convenience.
  4. **Uncommitted or Overly Delayed Response\*:** If the facility owner/operator has contacted the City but is uncommitted or repeatedly delays the inspection date in exceedance of forty-five (45) calendar days of the initial notification, the City will establish an inspection date on or about the forty-sixth (46<sup>th</sup>) calendar day following the date of the initial notification.
  5. **Delayed Inspections at Fault of the City:** If a scheduled inspection is missed by the City due to lack of manpower or emergency response requirements, the City will work with the facility owner/operator to establish another inspection date not to exceed 60 calendar days from the date of initial notification.
- \* **NOTE:** These types of inspections may require the use of two or more inspectors, possibly some from different departments or divisions, to ensure personal safety.

#### 7.2.3.2 Follow-Up Inspections

Follow-up inspections are conducted when an initial inspection, complaint inspection, or a previous follow-up inspection results in the identification of deficiencies that have not been, or could not be, corrected in the presence of the City inspector. Follow-up inspections are generally conducted within one (1) business day for serious violations where such violations can reasonably be expected to be addressed in that timeframe.

For less serious violations, a follow-up inspection is generally addressed by developing a compliance schedule with the owner/operator, usually within ten (10) business days. However, the City inspector may set a longer inspection window in cases where the owner/operator may reasonably be expected to be limited by others (e.g. time lags associated with having materials delivered to the facility or where permits are required).

### 7.2.3.3 Complaint Inspections

The City attempts to inspect all industrial facilities that are called in on a complaint basis within one working day of receiving that call, whenever possible. Where industrial operations seem questionable, the City inspector may require the use of two or more inspectors, possibly some from different departments or divisions, to ensure personal safety. The presence of a police officer may also be requested at the will of the City inspector.

## 7.3 **INSPECTION PROCESS**

The inspection process is generally divided into two separate activities. The first step is to conduct a document review followed by a facility field inspection.

### 7.3.1 Document Review

Most of the industrial facilities inspected by the City require coverage under the MSGP. The MSGP requires operators of regulated industrial activities to develop and implement a Storm Water Pollution Prevention Plan (SWPPP) prior to submitting a Notice of Intent (NOI) form to apply for coverage under the permit. A SWPPP is a “living document” and as such, it should be designed to be flexible enough to change as site conditions change. Additionally, the City does not have the authority to review the SWPPP for compliance with federal or state requirement or permit conditions. Therefore, the City does not require operators of regulated industrial activities to submit a copy of their SWPPP prior to inspection.

Instead, the City conducts a cursory review of SWPPP and/or other documentation during industrial facility inspections to identify areas that require inspection to ensure compliance with Mesa City Code. The City has drafted an inspection checklist that provides a list of documents that may be reviewed as part of this process.

### 7.3.2 Field Inspection

Industrial facility inspections are limited to areas that are exposed to stormwater and other areas environmental portions of the Mesa City Code. Industrial facility staff familiar with facility operations is asked to accompany the City inspector through the field inspection. The results of the inspection are noted on a City of Mesa Industrial Facility Inspection Form.

### **7.3.3 Inspection Disclaimer**

The City only conducts inspections of industrial facilities for compliance with the City's Stormwater Code and other parts of the Mesa City Code. As such, the owner/operator is provided a copy of an Industrial Facility Inspection Disclaimer form stating that the inspection was limited to these aspects of the City of Mesa Code and not to determine compliance with permit or other regulatory agency requirements.

### **7.3.4 Compliance Review Approval**

Once an industrial facility has been inspected and determined to be operating in compliance with the City's Stormwater Code, the City will send out an Inspection Results Letter to the owner/operator.

## **7.4 ENFORCEMENT**

The 2010 MS4 Permit requires the City to:

1. Establish an effective compliance and enforcement program that incorporates escalating actions for violations of the City's Stormwater Code that provides timeframes and escalation for corrective actions; and,
2. Focus the escalated enforcement protocol on having the highest level of enforcement action resolved within one (1) year of the initial inspection/violation.

The City's Stormwater Code has been revised to make to be consistent with other sections of the Mesa City Code, to make enforcement more consistent at the inspector level, and to ensure compliance with the 2010 MS4 Permit requirements. The City developed Basic Case Enforcement Process Work Instructions to provide a general schedule for obtaining compliance with stormwater violations, as well as other sections of the Mesa City Code. A copy of the Basic Case Enforcement Process Work Instructions is included in [Appendix E](#).

## **7.5 NON-FILERS**

The 2010 MS4 Permit requires the City to notify the ADEQ of any industrial operations that are known by the City to be occurring without obtaining coverage under the MSGP (i.e. non-filers). Where an industrial facility owner/operator is unable to provide proof of coverage under the MSGP, and where the City determines that coverage might be

required; the City will request a copy of any missing documentation or require a signed letter from the owner/operator that the MSGP regulations do not apply to them within 30 calendar days. Where a facility operator/owner does not believe that the regulations apply to them due to a “no-discharge” or “zero-discharge” claim, the City will request a letter signed and stamped by an Arizona registered professional (i.e. P.E. or R.G.).

The City will report any industrial facility that is non-responsive to the appropriate regulatory agency. Where a permit authorization or no-exposure certification is provided, no further action will be taken.

## **7.6 REPORTING**

The 2010 MS4 Permit requires the City to report the following information in their annual reports:

- Status of identification and inventory of industrial & commercial facilities (narrative).
- An overview of inspection findings and note significant findings (narrative) and the number of commercial and industrial facilities (see Appendix A, Part V.B) inspected.
- Corrective and enforcement actions needed and taken in response to inspections (narrative) and the number of corrective or enforcement actions initiated on industrial facilities.
- Percent of cases resolved within one (1) calendar year of original enforcement action.
- Number of training events provided to commercial and industrial inspection staff and the number of staff trained.

City personnel prepare monthly reports detailing the status of the commercial and industrial inspections that includes the information provided above. That information is then summarized in the annual report.

## **8.0 CONSTRUCTION ACTIVITIES**

The City drafted Standard Operating Procedures for Construction Activities of City Projects to meet the requirements of the 2010 MS4 Permit, the CGP, and other environmental regulatory requirements associated with construction operations, as well as to address other environmental requirements established under the Mesa City Code. The City drafted Standard Operating Procedures for Construction Activities of Private Projects to meet the requirements of the 2010 MS4 Permit, and address other environmental requirements established under the Mesa City Code.

The City understands that all requirements provided in the 2010 MS4 Permit as it pertains to the construction activities are limited to those construction projects that will result in a land disturbance of one (1) acre or more, including those less than one (1) acre, but are part of a larger common plan of development.

### **8.1 DESIGN REQUIREMENTS & PLAN REVIEW**

The 2010 MS4 Permit requires the City to:

1. Develop an inventory, list, or database, or map of construction activities that result in land disturbance of one (1) or more acres and that have the potential to discharge to the City's storm sewer system within one (1) year of permit issuance (August 30, 2011) and to be updated at least annually;
2. Review at least 80% of plans for new development and redevelopment (such as grading and drainage plans) to verify conformance with the City requirements for stormwater, including erosion and sediment control, prior to issuing construction approvals or authorizations;
3. Require a copy of the ADEQ's Authorization Certificate for non-municipal construction projects (as required by municipal stormwater requirements or ordinances or state stormwater requirements) be submitted prior to issuing construction approval or authorization; and,
4. Train City staff involved in reviewing construction plans in grading and drainage design standards, plan review procedures, municipal ordinances, requirements for structural and non-structural control measures, and post-construction stormwater controls.

5. Evaluate low impact development (LID) practices, applicability, regulatory hurdles, and other factors that would contribute to the reduction of pollutants in stormwater discharges from new construction, significant redevelopment, and retrofits of commercial and residential areas and to report the findings of how the implementation of LID practices would contribute to the reduction of pollutants in stormwater discharges to the MS4 and identify a plan and schedule for incorporation into design standards in the fourth year annual (September 30, 2014).

### **8.1.1 Private Construction Operations**

The City has developed an Engineering and Design Standards Manual that provides specific direction and guidelines to the design professionals preparing construction documents for private land development projects (COM, 2009)]. That manual adopts the Uniform Drainage Policies and Standards for Maricopa County as published by the Flood Control District of Maricopa County with modifications as specified within that manual.

City regulations requiring the retention of the 50-year, 24-hour run-off volume were adopted in 1997 and were based on three (3) inches of precipitation. Subsequent development in the City has been required to retain rainfall from a 100 year, 2-hour storm event either through the installation of retention or detention basins or other structures (e.g. subsurface storage) since these requirements were adopted in the late 1980's (Entellus, 2009). The 100 Year, 2-Hour rainfall depth is 2.7 inches, except in the Mesa Town Center where the retention standard only requires 2/3 of the 100 year, 2 hour rainfall depth, or 1.8 inches (COM, 2009).

The primary purpose of onsite stormwater retention standard is to manage stormwater runoff flow rates and volumes resulting from urban development. Stormwater disposal can occur through direct percolation into subsurface soils (full retention) or be released to the City's MS4 through gravity or pressurized bleed-off systems (detention). Bleed-off to the City's MS4 can only occur after the peak of the storm event has passed. Maintenance of retention/detention infrastructure is the responsibility of the property owner.

When plans are submitted to the City, information on the construction project is entered into a database and tracked from the plan review and inspection process through the completion of the process (i.e. issuance of a Certificate of Completion or Certificate of Occupancy). The City reviews all construction plans for compliance with all aspects of the City's Engineering and Design Standards Manual and City ordinances. Stormwater drainage and infrastructure are generally detailed in grading and drainage plans. Approval of these plans is required before a building permit is issued by the City. A copy of the contractor's ADEQ Authorization Certificate is also required before a building permit is issued by the City, where applicable.

### **8.1.2 City Projects**

For City projects, the City is deeply involved in the project through all phases of development (i.e. conception, planning, construction, and completion). In general, City projects are designed to meet the requirements provided in the City's Engineering and Design Standards Manual. Grading and drainage plans are required for most engineering projects, certainly any project that disturbs one or more acres of land. The City approves all plans drafted by outside consultants before the project is approved and issued for bid.

The City maintains a separate database for environmental inspections of City construction projects that disturb more than 0.1 acres. This is the threshold disturbance limit where a dust control permit would be required. For projects that disturb one or more acres, the City requires the general contractor to submit a copy of their SWPPP for review and approval along with a copy of their ADEQ Authorization Certificate before the contractor is authorized to conduct any land disturbance activities.

### **8.1.3 Staff Training**

Department management overseeing plan review staff is responsible for ensuring that new employees involved in these activities are trained at least one (1) time per year and provide refresher training for existing employees directly involved with stormwater management activities at least once every two (2) years. Such training will include reviewing grading and drainage design standards and plan review procedures.

Additional training including the requirements for the submittal of the ADEQ Authorization Certificate, the City's Stormwater Code, requirements for structural and non-structural control measures, post-construction stormwater controls, and other environmental issues will be provided by experienced stormwater staff.

All training shall be documented by the City in the form of retaining a sign-in sheet or other form of documentation including the date these training opportunities were provided and the staff attending the training.

#### **8.1.4 Low-Impact Development**

The 2010 MS4 Permit requires the City to evaluate low impact development (LID) practices, applicability, regulatory hurdles, and other factors that would contribute to the reduction of pollutants in stormwater discharges from new construction, significant redevelopment, and retrofits of commercial and residential areas. The City is required to include in the fourth year annual report (due September 30, 2014) the findings of how the implementation of LID practices would contribute to the reduction of pollutants in stormwater discharges to the MS4 and identify a plan and schedule for incorporation into design standards.

### **8.2 CONSTRUCTION SITE INSPECTIONS**

The 2010 MS4 Permit requires the City to:

1. Establish a prioritization schedule for inspecting construction sites with a higher frequency of inspections for those sites that have a higher potential to discharge to the storm sewer system;
2. Routinely inspect construction projects to determine whether effective erosion and sediment controls are in place, and verify conformance with local stormwater requirements and approved construction plans;
3. Inspect higher priority sites, based on the prioritization schedule, a minimum of one (1) time every three (3) months and all other sites at least once every six (6) months until final stabilization is established;
4. Conduct follow-up inspection of construction sites within 30 days to ensure stormwater deficiencies/concerns/non-compliance identified as a result of a routine inspection were corrected; and,

5. Continue to require third party inspections, or otherwise conduct the inspections themselves, of all sites that have received City permits within one (1) year after construction has been completed to determine the effectiveness of post-construction stormwater controls.

The City inspects private construction projects for compliance with the City ordinances, including the City's Storm Water Pollution Control ordinance. City construction projects are inspected for compliance with City ordinances in addition to the ADEQ's CGP and other environmental applicable environmental requirements.

All construction site inspections (private and City) are generally categorized as "routine" and "follow-up" inspections. The City also responds to complaints regarding private and City construction operations.

## **8.2.1 Routine Inspections**

### **8.2.1.1 Private Construction Projects**

The City will generally first inspect a private construction operation during the footing stage of development. During this visit, City staff takes time to review the operator's plans to identify active areas and stormwater BMPs. During the inspection of the footing structure(s), City staff look at all active areas of the construction project to ensure that BMPs and other environmental ordinance issues identified on the operator's plans are in place and maintained, and to ensure that the only non-stormwater releases to the City MS4 are properly permitted.

### **8.2.1.2 City Construction Projects**

City staff involved in the routine inspection of City construction projects is trained in identifying and addressing environmental issues associated with these operations, including stormwater issues. City staff conducts compliance audits of these operations. Compliance audits are generally conducted within two weeks of the approval of the City to the general contractor (i.e. issuance of a Notice to Proceed) or the disturbance of land associated with the project.

### **8.2.2 Follow-Up Inspections**

Follow-up inspections are conducted when an initial inspection or a previous follow-up inspection results in the identification of deficiencies that have not been, or could not be, immediately addressed in the presence of the City inspector. Follow-up inspections are generally conducted within 24-hours for serious violations. Follow-up inspections for less serious violations (i.e. paperwork violations, BMP maintenance) are usually addressed by developing a compliance schedule with the operator. That schedule takes into account current weather forecasts, nature of the deficiency, and time required for obtaining the equipment or materials to adequately address the deficiency. Under any circumstance, follow-up inspection must occur within 30 calendar days of the identification of the original deficiency.

### **8.2.3 Post-Construction Inspections**

For private construction projects, the City requires developers to obtain a third party inspection of post-construction stormwater controls to determine effectiveness of post-construction stormwater controls. In some cases, generally limited to City projects, qualified City staff will conduct these inspections. These inspections must be received within one (1) year after construction has been completed.

### **8.2.4 Prioritization**

It is the City's decision to conduct inspections of private construction projects and compliance audits of City construction projects a minimum of one (1) time every three (3) months as opposed to spending time and resources developing a prioritization scheme. The City believes this process will allow for more frequent inspections overall and will benefit the City's stormwater program instead of spending resources on methods for planning these inspections.

### **8.2.5 Inspection Records**

Inspections of private construction projects are entered into the same database that stores the information entered as part of the plan review process (Tidemark®). This provides a detailed record of the construction operations from the point of plan submittal through inspection and approval (i.e. issuance of a Certificate of Completion or Certificate of Occupancy). Compliance audits of City construction projects are entered

into a separate database since these inspections tend to be more comprehensive in nature.

### **8.2.6 Training**

Training of City staff involved in conducting construction inspections will include:

1. Brief overview of ADEQ stormwater permit requirements associated with construction operations, concentrating on permitted non-stormwater discharges;
2. Identifying releases of non-stormwater to the City's MS4 and eliminating releases that are not allowed;
3. City's Storm Water Pollution Control ordinance and other applicable ordinances;
4. Requirements for structural and non-structural BMPs and post-construction stormwater controls, including maintenance requirements; and,
5. Inspection and enforcement procedures.

All training shall be documented by the City in the form of retaining a sign-in sheet or other form of documentation including the date these training opportunities were provided and the staff attending the training.

### **8.3 ENFORCEMENT**

The 2010 MS4 Permit requires the City to:

1. Establish an enforcement procedure within one (1) year of permit issuance (due August 30, 2011) that provides timeframes and escalation for corrective actions and compliance with Mesa City Code Title 8, Chapter 5;
2. Establish an effective compliance and enforcement program that incorporates escalating actions for violations of the City's Storm Water Pollution Control ordinance that provides timeframes and escalation for corrective actions; and,
3. Focus the escalated enforcement protocol on having the highest level of enforcement action resolved within one (1) year of the initial inspection/violation.

The City's Storm Water Pollution Control ordinance has been revised to make to be consistent with other sections of the Mesa City Code, to make enforcement more consistent at the inspector level, and to ensure compliance with the 2010 MS4 Permit

requirements. The City developed Basic Case Enforcement Process Work Instructions to provide a general schedule for obtaining compliance with stormwater violations, as well as other sections of the Mesa City Code. A copy of the Basic Case Enforcement Process Work Instructions is included in [Appendix E](#).

#### **8.4 NON-FILERS**

The 2010 MS4 Permit requires the City to notify the ADEQ of any construction operations that are known by the City to be occurring without obtaining coverage under the CGP (i.e. non-filers). Where a construction site owner/operator is unable to provide proof of coverage under the CGP, and where the City determines that coverage might be required; the City will request a copy of any missing documentation or require a signed letter from the owner/operator that the CGP regulations do not apply to them within 30 days. The City will report any construction operation that is non-responsive to the appropriate regulatory agency. Where a permit authorization or waiver is provided, no further action will be taken.

#### **8.5 REPORTING**

The 2010 MS4 Permit requires the City to report the following information in their annual reports:

- Status of inventory/plan review of City construction sites (narrative); the number of construction/grading plans submitted for review; and, the number of construction/grading plans reviewed.
- An overview of inspection findings and significant findings (narrative) and the number of construction sites inspected.
- Corrective and enforcement actions needed and taken in response to construction site inspections (narrative) and the number of corrective or enforcement actions initiated on construction projects.
- Summary of new post-construction controls for municipal projects (narrative); an overview of the post-construction program (narrative); and the number of post-construction inspections completed.
- Corrective and enforcement actions needed and taken in response to post-construction inspections (narrative) and the number of corrective or enforcement actions initiated for post-construction activities.



- Description of topics provided in training sessions (narrative); the number of training events provided to City construction staff; and the number of City construction staff trained.

City personnel prepare monthly reports detailing the status of the City and private construction project information provided above. That information is then summarized in the annual report.



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