# CITY OF CHANDLER STORMWATER MANAGEMENT PROGRAM

Updated August 5, 2024





#### Prepared for:

City of Chandler 215 E. Buffalo St. Chandler, AZ 85225 Project NO: ST2113.101

#### Prepared by:

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## **CERTIFICATION STATEMENT**

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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.

Dawn Lang

Dawn Lang, Deputy City Manager / CFO

8/5/24

Date

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## **EXECUTIVE SUMMARY**

This Stormwater Management Program (SWMP) has been prepared for the City of Chandler (city) to comply with the Arizona Department of Environmental Quality's (ADEQ) Arizona Pollutant Discharge Elimination System (AZPDES), General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4), <u>AZG2021-002</u> (Permit). It is the intent of the Permit to reduce to the "maximum extent practicable" (MEP), the discharges of pollutants from the MS4 to the designated water of the United States located within the State of Arizona. This requirement is mandated by the Environmental Protection Agency through the Clean Water Act and <u>A.R.S.49-255.04</u>.

In compliance with that permit, the City of Chandler has developed a SWMP. The SWMP, presented in the proceeding pages, describes the minimum control measures (MCMs) separated into six (6) target areas used to reduce pollutants and meet stormwater quality standards. The MCMs, as defined in the Permit, are:

- MCM 1.Public Education and Outreach
- MCM 2. Public Participation and Involvement
- MCM 3.Illicit Discharge Detection and Elimination (IDDE) Program
- MCM 4. Construction Activity Stormwater Runoff Control
- MCM 5. Post-Construction Stormwater Management in New Development and Redevelopment
- MCM 6. Pollution Prevention and Good Housekeeping for Municipal Operations

To achieve the goals of each MCM, the City of Chandler has selected a series of Best Management Practices (BMPs) that will be implemented within the urbanized areas of the city. These best management practices are described in Appendix B - G of the SWMP.

The intent of this SWMP is to reduce the discharge of pollutants. While numerous departments within the City of Chandler will be tasked with the implementation of the Best Management Practices described within the MCM categories, the Management Services Department – Environmental Management Division will ultimately be responsible for administrating and overseeing implementation of this SWMP.

The Permit was issued by ADEQ effective on September 30, 2021, and will expire on September 29, 2026. If ADEQ does not reissue the general permit before the expiration date, this permit will be administratively continued in accordance with <u>A.A.C. R-18-9-C903</u> and remain in force and effect until a new one is issued.

The SWMP will be reviewed annually, and the measurable goals associated with the MCMs will be tracked and reported to ADEQ within an Annual Report. The Annual Report along with the SWMP are available to the public for review online (<u>www.chandleraz.gov</u>).

Revisions to the SWMP, or the BMPs will be tracked with the supporting documentation provided in the appendix of this document.

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## SECTION 1 STORMWATER MANAGEMENT PROGRAM

#### **1.1** REGULATORY BACKGROUND

The Arizona Pollutant Discharge Elimination System (AZPDES) General Permit for Discharges from Small Municipal Separate Storm Sewer System (MS4) Permit was established by Arizona Department of Environmental Quality (ADEQ) pursuant to the Clean Water Act (CWA) Section 402(p)(3)(iii) and A.R.S. 49-255.04 to ensure that pollutant discharges from the MS4s are reduced to the "maximum extent practicable" (MEP), protect water quality, and satisfy the appropriate water quality requirements of the CWA. ADEQ's initial 2002 AZPDES general permit required small MS4s to develop and implement SWMPs designed to control pollutants to the MEP and protect water quality. Subsequent issuance of the permit reflects new guidelines and rules passed down by the Environmental Protection Agency to ADEQ.

In order to maintain authorization to discharge stormwater runoff from the MS4, the City of Chandler's is required to update the 2016 SWMP to reflect the requirements presented in the General Permit <u>AZG2021-002</u> (Permit).

#### **1.2** SWMP COVERAGE AREA

This SWMP authorizes solely discharges from the City of Chandler MS4. The city boundaries as well as the urbanized area boundary based on the 2021 census are shown in **Figure 1**.

#### **1.3** ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES) SMALL MS4 GENERAL PERMIT

To achieve the goals of reducing pollutant discharges and protect water quality, the Permit requires the implementation of six (6) minimum control measures (MCM).

- MCM 1. Public Education and Outreach
- MCM 2. Public Participation and Involvement
- MCM 3. Illicit Discharge Detection and Elimination (IDDE) Program
- MCM 4. Construction Activity Stormwater Runoff Control
- MCM 5. Post-Construction Stormwater Management in New Development and Redevelopment
- MCM 6. Pollution Prevention and Good Housekeeping for Municipal Operations

As part of the implementation effort the City of Chandler has associated BMPs for each of the six (6) MCMs. The BMPs are described in detail in Appendix B-G. Each BMP includes an objective and measurable goals to assess the effectiveness and level of implementation. An implementation "start date" is provided for each of the BMPs to track BMPs that are currently being developed in response to the new requirements presented in the Permit.

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City of Chandler Stormwater Management Plan 2022



#### **1.4** ORGANIZATION OF SWMP

This SWMP has been organized into ten (10) sections with their respective appendices. Each section is briefly described below:

#### Section 1 Stormwater Management Program:

This section briefly summarizes the history and requirements of the city's stormwater program. It also outlines the roles and responsibilities of department within the City of Chandler tasked with administering, implementing and reviewing the SWMP.

#### Section 2 Program Management:

The goals of the city's stormwater program, the responsibilities of the city, developers, corporations, and individuals, and the legal authority/enforcement options available to the city are provided in this section.

#### Section 3 Public Education and Outreach (MCM 1):

The purpose of this program is to distribute information, on the importance of clean stormwater runoff, to the general public, residential communities, homeowners, schools and targeted business sectors (i.e., commercial and industrial facility owners and managers, developers, and contractors). The procedures associated with this program are briefly explained in this section.

#### Section 4 Public Participation and Involvement (MCM 2):

This section outlines the city's goals for involving the general public in the creation, and review of a successful stormwater pollution prevention program, and the methods of involving the public during its implementation.

#### Section 5 Illicit Discharge Detection and Elimination Program (MCM 3):

This section describes the city's Illicit Discharge Detection and Elimination (IDDE) program for prohibiting non-stormwater discharges into the MS4 and enforcement procedures being implemented to eliminate illicit discharges. Included are the methods for detecting non-stormwater discharges, and the education of the public, with emphasis on the target sectors of industry, regarding the prevention of illegal discharges into the City of Chandler's MS4.

#### Section 6 Construction Activity Stormwater Runoff Control (MCM 4):

This section explains the program set forth by the city to reduce polluted stormwater runoff from construction sites. Within this section are the procedures for review of the stormwater quality process and elements to be implemented on a site, the inspection of the site during construction, and enforcement of the program by the city.

# Section 7 Post-Construction Stormwater Management in New Development and Redevelopment (MCM 5):

This section identifies programs to be carried out by the city to reduce pollution from post-construction BMPs, including both structural and nonstructural BMPs, maintenance of infrastructure, and enforcement of regulations.

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# Section 8 Pollution Prevention and Good Housekeeping for Municipal Operations (MCM 6):

Described within this section are the operations for reducing pollution from municipal operations and facilities. The section further describes the city's training programs for stormwater pollution prevention designed to educate staff across multiple departments on the need for adherence to the Good Housekeeping protocols in order to keep pollutants out of the MS4.

#### Section 9 Sampling and Analysis Plan:

The plan, which is briefly explained in this section, defines the procedures and protocols to be used in sampling stormwater runoff, including those to be used for characterization monitoring and wet weather sampling.

#### Section 10 Annual Program Evaluation Protocols:

This section describes the procedure for reviewing, evaluating, and revising the city's SWMP. Included are the steps for preparing the Annual Report, where the report is filed and record keeping requirements specified in the permit.

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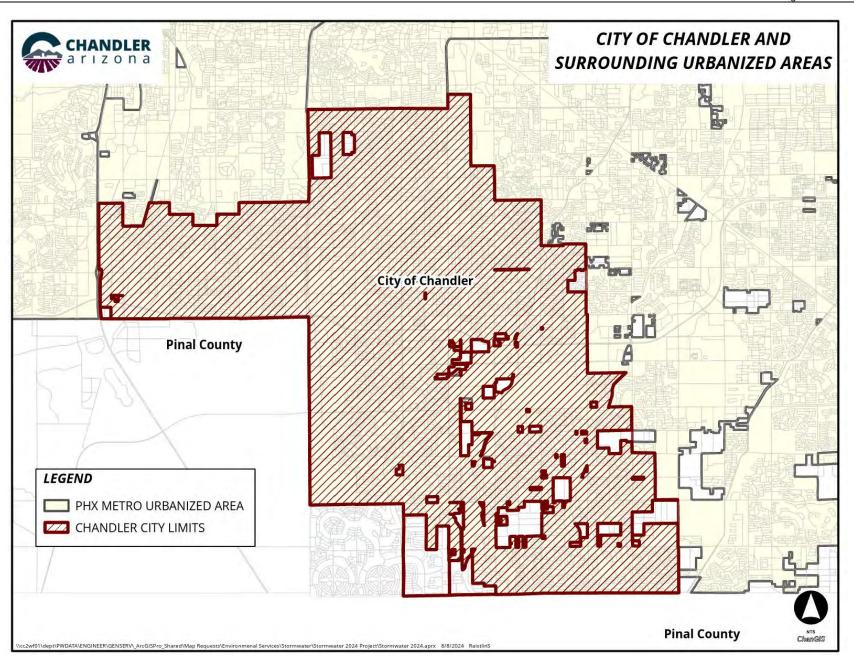
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## SECTION 2 PROGRAM MANAGEMENT

#### 2.1 OVERVIEW

The SWMP and its components will be implemented on an ongoing basis and will be updated as necessary during the permit term. This section describes the overall objectives of the city's SWMP, some of the local issues specific to the City of Chandler small municipal separate storm sewer systems (MS4), departmental implementation of the SWMP, and an overview of the legal authority to implement and enforce the program.

#### 2.2 DISCUSSION OF LOCAL RECEIVING WATERS

The City of Chandler is located within the Middle Gila Watershed. This watershed is approximately 12,056 square miles in size and covers 9% of Arizona. The Gila River is the longest river and a predominate feature in the watershed.

Although located within the Middle Gila Watershed, the City of Chandler MS4 system does not directly outfall to any receiving waters in this or any other watersheds. All of the stormwater conveyed by the City of Chandler MS4 is collected and conveyed through the Arizona Department of Transportation (ADOT) stormwater infrastructure and the Gila Drain.

As a matter of note, there are no "Impaired", "Not-attaining", or "Outstanding Waters" within the city limits. The Consolidated Canal is considered to be a "Protective Surface Water" by the ADEQ. Because, the City of Chandler MS4 does not discharge into the canal, there are no outfalls along this watercourse.

A map of the City of Chandler's drainage system is included in Appendix A.

#### 2.3 STORMWATER MANAGEMENT RESPONSIBILITIES

It will be the responsibility of the Management Services Department – Environmental Management Division to administer and oversee the SWMP. The Environmental Management Division, Public Works and Utilities, Capital Projects Division, and Development Services Department will also conduct inspections. The Environmental Services Manager will serve as the point of contact for the program and will be assisted by the Environmental Services Program Coordinator and the Environmental Services Senior Technician.

To evaluate the effectiveness of the SWMP, the Management Services Department – Environmental Management Division will conduct a yearly review of the effectiveness of each best management practice. The review will also revisit the descriptions and implementation procedures for the BMPs presented in the appendices to ensure that information therein reflects what is being implemented. The evaluation and updates to the SWMP will be reported in the Annual Report to the Arizona Department of Environmental Quality through the myDEQ portal. Revisions to the SWMP will be documented and tracked (**Appendix K**).

Under the supervision of the Management Services Department, Environmental Services Manager, the stormwater management program will be implemented by City of Chandler departments and staff. Given that each department will be responsible for only a small facet of this SWMP, the department responsible for



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CHANDLER a r I z o n a community of Innovation

> each BMP is identified in the description to help define roles and responsibilities. The job title for the individual responsible for ensuring the implementation of the BMPs assigned to each department is also included with the description of the BMP.

#### 2.4 LEGAL AUTHORITY ENFORCEMENT.

The City of Chandler has established the legal authority to implement and enforce their stormwater program. The city's legal authority is provided through the Chandler Municipal Code. The City Manager or designee has the authority to enforce the stormwater ordinance requirements. The applicable city code sections that grant the city the legal authority to implement the stormwater program are summarized below. As part of this permit cycle, the city will review their legal authority to ensure it is compliant with the new permit requirements.

#### 2.4.1 ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) ENFORCEMENT AUTHORITY

The City of Chandler has enforcement authority through the City Code and ordinances. The specific code sections that grant the enforcement authority include:

- Chapter 1- 8.9 Enforcement of City Code
- Chapter 26 Code Enforcement through Civil Infraction Procedures
- Chapter 30-8 30-14 Enforcement Proceedings
- Chapter 45-4 Right of City to drain standing water
- Chapter 45-5 Declaration of nuisance
- Chapter 45-6 Prohibition of non-stormwater discharges to the stormwater collection system; exceptions

#### 2.4.2 CONSTRUCTION SITE STORMWATER ENFORCEMENT AUTHORITY

The City of Chandler has enforcement authority through their city code and ordinances. The specific code sections that grant the enforcement authority include:

- Chapter 1-8.9 Code Enforcement of City Code
- Chapter 26 Code Enforcement through Civil Infraction Procedures
- Chapter 30-8 through 30-14 Enforcement Proceedings
- Chapter 43-4 Adoption of public works standards, specifications, and regulations, as presented in the City of Chandler Engineering & Design Standards Manual (Chapter 3 – Storm Drainage System Design)
  - Requires submittal of an Erosion and Sediment Control. Plan to the city's Planning and Development Department prior to the city issuing a grading permit
  - Requires construction site BMPs to be maintained
  - o Requires prompt cleanup of any non-stormwater discharge
  - Requires a SWPPP for sites greater than 1-acre
- Requires the city to perform inspections
- Chapter 45-3 Uniform drainage policies and standards adopted



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- Chapter 45-6 Prohibition of non-stormwater discharges to the stormwater collection system; exceptions
- Chapter 45-7 Construction site stormwater runoff/release control requirements

#### 2.4.3 Post-Construction Stormwater Enforcement Authority

The City of Chandler has enforcement authority through their city code and ordinances. The specific code sections that grant the enforcement authority include:

- Chapter 1-8.9 Code Enforcement of City Code
- Chapter 26 Code Enforcement through Civil Infraction Procedures
- Chapter 30-8 through 30-14 Enforcement Proceedings
- Chapter 43-4 Adoption of public works standards, specifications, and regulations, as presented in the City of Chandler Engineering & Design Standards Manual (Chapter 3 – Storm Drainage System Design)
  - Requires stormwater controls are in place and properly maintained
  - Requires site owner to correct any deficiencies found through either a City of Chandler or self-inspection
  - States that the City has right of entry to inspect the drainage infrastructure
- Chapter 45-3 Uniform drainage policies and standards adopted
- Chapter 45-4 Right to city to drain standing water
- 45-6 Prohibition of non-stormwater discharges to the stormwater collection system; exceptions
- 45-8 Post-Construction stormwater runoff release and maintenance requirements



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# SECTION 3 MCM 1 PUBLIC EDUCATION AND OUTREACH

#### 3.1 OVERVIEW

The City of Chandler is required to implement a public education and outreach program that will distribute educational materials and provide outreach to the MS4 community. This program is required by Section 6.1 of the Permit. The educational materials are required to provide messages for specific groups regarding the impact of stormwater discharges within the community. Measurable goals must also be developed to assess the effectiveness of the BMPs. The purpose of the public education and outreach programs are to increase public knowledge regarding stormwater, change the behavior of the public, and reduce pollutants in the stormwater.

It is believed that when the public is better informed about stormwater, greater support for the program will exist. In addition, when the public becomes informed of the importance of stormwater pollution prevention, greater compliance with the goals of the program may be found, and a reduced pollutant load will reach the area's water.

Methods will be developed to evaluate the effectiveness of the educational and outreach programs and tied to the defined goals of the program. The message used for each group, the method of distribution, and the objective of changes in behavior and knowledge will be used to assess the overall effectiveness of the education program. Ineffective messages or distribution techniques will be modified as necessary.

In implementing the Public Education and Outreach program, the City of Chandler will target at least one of the following groups within the community at large:

- General Public
- Residential Community
- Homeowners
- Schools

In addition, the Public Education and Outreach Program will target at least one of the following groups within the business sector:

- Development Community
- Homeowner and Neighborhood Associations
- Construction Site Operators
- Commercial and Industrial Businesses

Information presented will be on topics relevant to stormwater quality and the MS4 operated by the City of Chandler.

#### 3.2 SELECTED BMPs

The City of Chandler has evaluated the public education and outreach component of their stormwater program and has identified BMPs to better



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inform the residents and businesses of the importance of preventing stormwater pollution. The selected BMPs are summarized in Table 1 with a description of each BMP provided in this section. Detailed BMP information is provided in **Appendix B**.

TABLE 1 MCM 1 PUBLIC EDUCATION AND OUTREACH BMP SUMMARY (APPENDIX B)

BMP	Description
MCM 1-1	Educational Materials
MCM 1-2	Educational Events
MCM 1-3	Stormwater Webpage
MCM 1-4	Regional Coordination

#### MCM 1-1 Educational Materials

**Description**: The City of Chandler will promote an education program that increases knowledge on stormwater pollution prevention.

**Responsible Department**: Management Services Department – Environmental Management Division

*Measurable Goals:* The city will develop and distribute educational materials to promote increased stormwater awareness including articles, brochures, a stormwater webpage, storm drain inlet markers and promotional items on an annual basis. Additional electronic communications will also be aired on Chandler 11 (Public Access Channel) or distributed via social media.

Typical topics may include residential, commercial and industrial pollution prevention, water conservation, leaking vehicles, pool drainage, household hazardous waste disposal, pet waste management, trash management, illegal dumping, recycling programs, spill prevention, impacts of pesticides, herbicides and fertilzer on stormwater quality, and post construction ordinances and longterm maintenance requirements and where to report a violation or ask a question.

Materials may be displayed or distributed at city locations or events or via social media and televsion. Materials distributed to the public will be tracked. The materials will also be annually evaluated and when necessary modified. The types of education materials distributed will be summarized as part of the Annual Report. Any revisons to the material will be documented as part of the Annual Report.

*Target Group:* General Public (Homeowners, Business Owners, Contractors). Note: Additional target groups will be included in the distribution efforts when available.

*Metrics:* The quantity of education materials distributed will be tracked and reported. Additionally, the material medium or type, the general information it contained, and the target group who received the message, and how it was distributed will be tracked. This may include the number of new informational signs or inlet markers purchased and installed, and the purpose of the sign. The results will be reported annually.



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#### MCM 1-2 Educational Events

**Description:** The City of Chandler will participate in educational events that provide opportunities to increase knowledge on stormwater related topics and distribute the education materials prepared as part of MCM 1-1.

**Responsible Department:** Management Services Department – Environmental Management Division

**Measurable Goals:** The city will participate in educational events, community events, festivals, workshops and/or open houses. Because events may vary over the Permit term, the city, at its descretion, may take advantage of these new opportunites. As such the events attended may vary yearly. Updates to the yearly event calendar will be reported annually.

Target Group: General Public (Homeowners, Business Owners, Contractors).

*Metrics:* For educational events, the number of public events attended by city Staff, a summary of each attended event, and the number of event participants that city staff connected with will be tracked. The number and type of any promotional or educational materials distributed will also be tracked. The results will be reported annually.

#### MCM 1-3 Stormwater Webpage

**Description:** The City of Chandler will maintain a stormwater webpage to promote education and communication on stormwater related topics. The webpage will also contain an electronic copy of the SWMP and the Annual Report as required by ADEQ.

**Responsible Department:** Management Services Department – Environmental Management Division/ Communications and Public Affairs Department (CAPA)/ Digital Content Strategist.

**Measurable Goals:** The city's stormwater webpage will be reviewed and/or periodically updated to provide information on stormwater related topics. The webpage will also include a copy of the city's SWMP and Annual Reports. The information will be tracked and reviewed annually. Updates will be made as necessary.

Target Group: General Public (Homeowners, Business Owners, Contractors).

*Metrics:* Number of annual website visitors, the number of total page views, number of material downloads and the number and date of website updates will be tracked.

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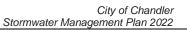
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#### MCM 1-4 Regional Coordination

**Description:** The City of Chandler will participate in regional coordination efforts promoting greater public education and outreach.

**Responsible Department**: Management Services Department – Environmental Management Division

**Measurable Goals:** The city will participate in STormwater Outreach for Regional Municipalities (STORM) and/or professional organizations (i.e., AZ Water; MAG). Participation in programs will be tracked and evaluated annually for effectiveness and modified as necessary.

*Target Group*: City staff and general public. The attendance at the meetings will be completed by city staff. Many of the outreach efforts will be to better inform the general public.

*Metrics:* Participation in professional organizations related to stormwater will be tracked. The number of Chandler staff participating in each meeting and event will be tracked. The number of Chandler staff members serving on an executive board, committee or subcommittee will be tracked.

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# SECTION 4 MCM 2 PUBLIC PARTICIPATION AND INVOLVEMENT

#### 4.1 OVERVIEW

The second mandated minimum control measure includes seeking the active participation and involvement of the public. The objective of this requirement is to provide opportunities to engage the public to participate in the review and implementation of the city's SWMP. The Public Participation and Involvement requirements are outlined in Section 6.2 of the Permit. Getting the public to actively participate in events related to the stormwater program, and involving the public in the review of the SWMP is believed to result in increased support for the program. Increased support for the program will then lead to a reduction in pollutant loading in the stormwater.

Public participation events may include homeowners association (HOA)/Neighborhood Association meetings, outreach events, contests, local non-governmental sponsored events (i.e., carnivals, farmers makets, fun runs) and participation in professional organizations.

#### 4.2 SELECTED BMPs

The City of Chandler has evaluated the Public Participation and Involvement component of their stormwater program and has identified BMPs to better inform the residents and businesses of the importance of preventing stormwater pollution. The selected BMPs are summarized in Table 2, with a description of each BMP provided in this section. Detailed BMP information is provided in **Appendix C**.

#### TABLE 2 MCM 2 PUBLIC PARTICIPATION AND INVOLVEMENT BMP SUMMARY (APPENDIX C)

BMP	Description
MCM 2-1	Community Hotline
MCM 2-2	Community Email
MCM 2-3	Stormwater Webpage
MCM 2-4	HOA/Neighborhood
	Association Meetings
MCM 2-5	Outreach Events
MCM 2-6	Environmental Art Contest
MCM 2-7	Regional Coordination
MCM 2-8	Annual SWMP Review

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#### MCM 2-1 Community Hotline

**Description:** The City of Chandler will promote Public Participation and Involvement by providing a community hotline that will allow for the general public to report stormwater violations, ask questions or request additional information in regards to the City of Chandler SWMP or the MS4.

**Responsible Department:** Management Services Department – Environmental Management Division

*Measurable Goals:* The city will promote Public Participation and Involvement through use of its hotline. The phone numbers provided for this service are 480-782-3503 and 480-782-3506. Calls to the hotline numbers will be documented and if necessary escalated such that a work order, work request or inspection can be scheduled.

Target Group: General Public (Homeowners, Business Owners, Contractors)

*Metrics:* The number of calls received by the city Stormwater Hotline will be documented and tracked. The total number of calls, and the number of work requests, work orders or inspections that come from the calls will be tracked.

#### MCM 2-2 Community Email

**Description:** The City of Chandler will promote Public Participation and Involvement providing a general email on its website that will allow for the general public to report stormwater violations, ask questions or request additional information in regards to the City of Chandler SWMP or the MS4.

**Responsible Department**: Management Services Department – Environmental Management Division

*Measurable Goals:* The city will promote Public Participation and Involvement through use of its email. The email address,

environmentalmanagement@chandleraz.gov will be included on the City of Chandler's Stormwater Web Page. Emails reporting a potential stormwater violation or illicit discharge will be documented and escalated such that a work order, work request or inspeciton can be scheduled.

Target Group: General Public (Homeowners, Business Owners, Contractors)

Metrics: The number of emails received and relevant to the SWMP will be tracked.

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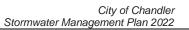
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#### MCM 2-3 Stormwater Webpage

**Description:** The City of Chandler will maintain a stormwater webpage to promote education and communication on stormwater related topics. The webpage will also contain an electronic copy of the SWMP and the Annual Report as required by ADEQ.

**Responsible Department:** Management Services Department – Environmental Management Division/ Communications and Public Affairs Department (CAPA)/ Digital Content Strategist.

**Measurable Goals:** The city's stormwater webpage <u>https://www.chandleraz.gov/residents/water/stormwater</u> will be reviewed and/or periodically updated to provide information on stormwater related topics. As required, the webpage will also include a copy of the city's SWMP and Annual Reports. The information will be tracked and reviewed annually. Updates will be made as necessary.

Target Group: General Public (Homeowners, Business Owners, Contractors)

*Metrics:* Number of annual website visitors, the number of total page views, number of material downloads and the number and date of website updates will be tracked.

#### MCM 2-4 HOA/Neighborhood Association Meetings

**Description:** The City of Chandler will promote Public Participation and Involvement by attending and presenting at HOA meetings and involve elements of the SWMP changes to the process that are part of the implemention of the program or opportunities to participate in the review and evaluation of the program.

**Responsible Department**: Management Services Department – Environmental Management Division

*Measurable Goals:* The city will promote Public Participation and Involvement through HOA and Neighborhood Association.

*Target Group:* General Public, Residential Community, Homeowners and Community/Home Owner Association

*Metrics:* The total number of meetings held, the number of participants at the meeting (virtual and/or in person) will be documented. Questions and comments related to the SWMP, the MS4 or the implementation of the program through the best management practices will be documented.

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#### MCM 2-5 Outreach Events

**Description:** The City of Chandler will host and participate in educational events that provide opportunities to increase knowledge on stormwater related topics and distribute the education materials prepared as part of MCM 1.

**Responsible Department:** Management Services Department – Environmental Management Division

**Measurable Goals:** The city will host and participate in publically sponsered outreach events such as workshops, open houses, or community-based philantropic events. Because events may vary over the Permit term, the city, at its descretion, may take advantage of these new opportunites to engage and connect to the public to further advance the messages regarding pollution prevention. As such the events attended may vary yearly, updates to the yearly event calendar will be reported annually. The events will be advertised on the City of Chandler's website.

*Target Group:* Residential Community, General Public (Homeowners, Business Owners, Contractors)

*Metrics:* For outreach events, the number of outreach events hosted by city staff, the number of outreach events attended by city staff, a summary of each attended event, and the number of event participants that city staff connected with will be tracked. The number and type of any promotional or educational materials distributed will also be tracked. The results will be reported annually.

#### MCM 2-6 Environmental Art Contest

**Description:** The City of Chandler will sponsor an art contest, that will encourage children to get involved in pollution prevention through artwork.

**Responsible Department:** Management Services Department – Environmental Management Division

**Measurable Goals:** Prior to the beginning of the school year, city staff will select three (3) themes from a list of stormwater, recycling and water conservation related topics to be represented in hand-drawn art by elementary-school-aged children. The information regarding the art contest with the selected themes will be distributed to participating charter, private and public schools. Submitted art work will be collected and the winners notified.

Target Group: General Public, Schools, and Educators

*Metrics:* For the art contest, the topics will be documented and the number of schools that participated along with the number of entries will be tracked for each category. This information will be reported annually as part of the Annual Report.

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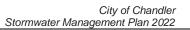
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#### MCM 2-7 Regional Coordination

**Description:** The City of Chandler will participate in regional coordination efforts promoting greater Public Participation and Involvement.

**Responsible Department:** Management Services Department – Environmental Management Division

*Measurable Goals:* The city will participate in STORM and/or other professional organizations (i.e., AZ Water; MAG). Participation in programs will be tracked and evaluated annually for effectiveness and modified as necessary.

*Target Group*: City staff and general public. The attendance at the meetings will be completed by city staff. Many of the outreach efforts will be to better inform the general public.

*Metrics:* The number of Chandler staff participating in professional organizations and outreach events will be tracked. The type and number of promotional materials distributed, a description of the event being promoted, and the total number of event attendees will be tracked.

#### MCM 2-8 Annual SWMP Review

**Description:** The City of Chandler will promote Public Participation and Involvement in an annual review of the city's SWMP.

**Responsible Department:** Management Services Department – Environmental Management Division

**Measurable Goals:** The SWMP and Annual Reports will be posted on the city's Stormwater Program website year round. The city will promote a 30 day timeframe for the public to review the plan on an annual basis. The method for review will be evaluated for effectiveness and modified as necessary.

Target Group: General Public (Homeowners, Business Owners, Contractors)

*Metrics:* Dates for public comment and number of comments received will be tracked.

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# SECTION 5 MCM 3 ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM (IDDE)

#### 5.1 OVERVIEW

The third mandated minimum control measure includes developing, implementing, evaluating and updating a program to detect and eliminate illicit and nonstormwater discharges to the MS4 as required in General Permit <u>AZG2021-002</u> Section 6.3. This program is commonly referred to as an Illicit Discharge Detection and Elimination program (IDDE). The city has developed a program that is based on the requirements specified in Section 6.3 of the Permit. While the BMPs used to comply with the requirements are provided in **Appendix D**, a brief summary of the IDDE program requirements is provided below. The city will annually evaluate the IDDE Program and will update the program as necessary to comply with the new Permit.

The objective of the IDDE program is to systematically find and eliminate sources of non-stormwater discharges to the (MS4) and to implement procedures to prevent illicit connections and discharges. To this end the City of Chandler has developed processes and procedures designed to prevent, identify, report, and mitigate illicit discharges to and from the MS4. Ongoing training of city staff will ensure that the processes developed as part of the IDDE are explained and reinforced such that they can be properly implemented through the Permit term.

As part of the development of the IDDE program the existing stormwater infrastructure was mapped. The mapping will be a continuous effort as new facilities are constructed within the MS4 as discussed in General Permit <u>AZG2021-002</u>. Section 6.3.1 of the Permit.

The IDDE program is supported by the city's current enforcement procedures adopted as part of the City Code as described in **Section 30-6 Enforcement general.** 

In eliminating illicit and non-stormwater discharges, the IDDE program includes the following monitoring elements:

- Visual Dry Weather Outfall Monitoring of outfalls/screening locations
- Visual Wet Weather Discharge Monitoring of outfalls/screening locations
- Follow-up monitoring/inspections at outfalls/screening points where identified or suspected illicit discharges were observed

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The city's IDDE Program has developed procedures and protocols to accomplish the following tasks:

- Implement appropriate enforcement procedures and actions to prevent illicit discharges
- Map the City of Chandler's storm sewer system
- Define outfall/screening points
- Identify and document potential illicit discharges
- Investigate suspected illicit discharges
- Take appropriate measures that will eliminate illicit discharges, including discharges from properties not owned or operated by the MS4 that discharge into the MS4 system
- If the city suspects or has identified a non-filer, the city will send a report containing the facility name and location to ADEQ (<u>AZPDES@azdeq.gov</u>) within thirty (30) days of discovery.

The program will also include a written statement that clearly identifies program responsibilities for eliminating illicit discharges and identifies the department responsible for implementing the IDDE Program, including other departments that may have responsibilities in the program.

The program will document the following information for all illicit or suspected illicit discharges:

- Location of the illicit discharge and its source(s)
- Description of the discharge
- Estimated illicit discharge duration (if known)
- Method of discovery
- Date of discovery
- Date of elimination
- Mitigation or enforcement action
- Responsible person (if known)
- Estimated volume (if known)

#### 5.2 **OUTFALLS/SCREENING LOCATIONS**

As presented in Table 3, the City of Chandler has identified the seven (7) locations to be visually monitored as part of the IDDE program. The locations consist of a combination of outfalls and screening points such that the city meets the requirements for the number of Visual Monitoring locations (Section 6.3.7.d) where monitoring is to be performed. Per General Permit <u>AZG2021-002</u> Section 6.3.7.b, at least 20% of the outfalls will be visually monitored each year. The map depicting the seven identified locations is on **Figure 2 – Outfall Map**.

As a matter of note, there are no "Impaired", "Not-attaining", or "Outstanding Waters" within the city limits. Because the City of Chandler MS4 does not discharge into any of the above, no analytical monitoring is required.



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#### TABLE 3 VISUAL MONITORING (DRY/WET) LOCATIONS

Location ID	Location Description	
MH-12-47-010	SanTan 202 & McClintock Rd	
CB-12-47-005	SanTan 202 & Kenwood Lane	
MH-12-45-010	SanTan 202 & Stellar PW/Geronimo St	
CB-12-46-005	SanTan 202 & Stellar AP Runway/Geronimo St	
Out-10-49-008	Price Fwy 101 Frontage Rd & Galveston St - Thude Park	
ST-CB-11-42-001	South side of Chandler Blvd @ (Gila Drain & Chandler Blvd)	
ST-SCP-10-43-005	South side of Gila Drain & Gila Springs Blvd	

#### 5.3 SELECTED BMPs

The City of Chandler has selected the following BMPs for including in the illicit discharge detection and elimination program component for the purpose of eliminating illicit discharges and to better inform the residents and businesses of the importance of preventing stormwater pollution. The selected BMPs are summarized in Table 4, with a description of each BMP provided in this section. Detailed BMP information is provided in **Appendix D**.

# TABLE 4 MCM 3 ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) PROGRAM BMP SUMMARY (APPENDIX D)

BMP	Description	
MCM 3-1	Storm Sewer System Mapping	
MCM 3-2	Legal Authority Review	
MCM 3-3	Visual Outfall Monitoring (Dry Weather)	
MCM 3-4	Visual Outfall Monitoring (Wet Weather)	
MCM 3-5	Illicit Discharge Response	
MCM 3-6	IDDE Staff Training	
MCM 3-7	Rain Gage Installation	
MCM 3-8	Illicit Discharge On-line Reporting Form	

#### MCM 3-1 Storm Sewer System Mapping

**Description:** The City of Chandler's GIS system will incorporate modifications to the storm sewer system map as new public and private structures are added into the city's system.

**Responsible Department:** Management Services Department – Environmental Management Division/ Development Services – GIS Analyst

**Measurable Goals:** GIS features will be added into Chandler's existing system following final inspections and submittal of As-Built information. Additional features may be added and/or revised when necessary.

Metrics: Number of structures added will be tracked in the GIS system.

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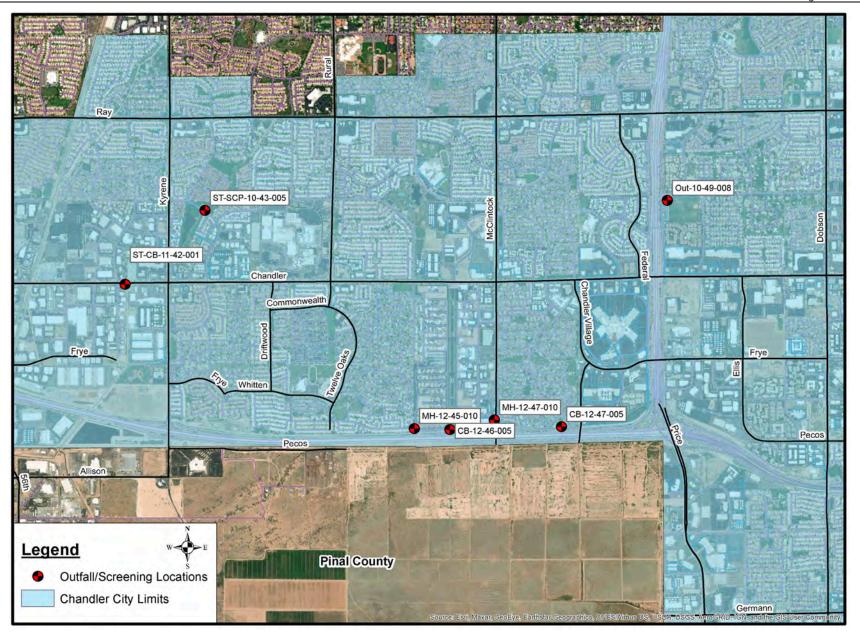


Figure 2 Identified Outfall/Screening Locations







#### MCM 3-2 Legal Authority Review

**Description:** The City of Chandler will review and update procedures to ensure they are compliant with the new permit.

**Responsible Department:** Management Services Department – Environmental Management Division/ Law Department

*Measurable Goals:* Inspection Standard Operating Procedures and documentation procedures will be evaluated. Updates will be made as necessary.

*Metrics:* The number of reviews and the document reviewed will be tracked and reported when evaluated.

#### MCM 3-3 Visual Outfall Monitoring (Dry Weather)

**Description:** The City of Chandler will conduct visual dry weather outfall monitoring to ensure there are no illicit discharges, ineffective BMPs, or maintenance concerns.

**Responsible Department:** Management Services Department – Environmental Management Division

**Measurable Goals:** Dry weather inspections of at least 20% of the outfalls/screening points will be conducted a minimum of once per year. Reinspections will be conducted based on the findings of the initial inspection and subsquent inspections to ensure that any illcit discharges have been eliminated.

*Metrics:* The date and location of each inspection will be tracked. The observations made will be recorded and information will be documented on data collection forms. The date, location and a summary of the observed results and the date and time of any re-inspections, if undertaken, will be reported annually.

#### MCM 3-4 Visual outfall Monitoring (Wet weather)

**Description:** The City of Chandler will implement a visual stormwater discharge monitoring program for the collection of samples during a qualified storm event.

**Responsible Department:** Management Services Department – Environmental Management Division

**Measurable Goals:** Wet weather inspections of at least 20% of the outfalls/screening points will be conducted a minimum of once per year. The results will be documented. Follow up inspections and potentially enforcement actions will be scheduled as necessary based on the results of the initial monitoring effort.

*Metrics:* The date and location of each inspection will be tracked. The observations made will be recorded and information collected on data collection forms. The date, time, location of the inspection, and any subsequent actions taken will be reported annually.

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#### MCM 3-5 Illicit Discharge Response

**Description:** The City of Chandler will investigate illicit discharges and attempt to identify their source.

**Responsible Department:** Environmental Management Department - Management Services Division in Partnership with Chandler Police Department

*Measurable Goals:* The city will investigate illicit discharges immediately as noted by city staff, the general public, or complaints received. Investigations will follow SOPs outlined in the IDDE program, and will be resolved as quickly as possible.

Metrics: The number of incidents responded to will be reported annually.

#### MCM 3-6 IDDE Staff Training

**Description:** The City of Chandler will provide training for city staff on the illicit discharge detection and elimination program.

**Responsible Department:** Management Services Department – Environmental Management Division

*Measurable Goals:* Appropriate city staff will be trained on the IDDE program.

*Metrics:* The number of training events held will be tracked. The number of city staff attending each training event will be tracked. The results will be reported annually.

#### MCM 3-8 Illicit Discharge On-line Reporting Form

**Description:** The City of Chandler will develop and maintain an on-line form to allow the public to report potentential illicit discharges and/or stormwater violations.

**Responsible Department** Management Services Department – Environmental Management Division/ Communications Public Affairs Department (CAPA

*Measurable Goals:* Record the number of illicit dicharges and/or stormwater violations reported using the form during the given permit year.

*Metrics:* The number of reports filed using the on-line form will be tracked. The results will be reported annually.

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### SECTION 6 MCM 4 CONSTRUCTION ACTIVITY STORMWATER RUNOFF CONTROL

#### 6.1 **OVERVIEW**

The fourth mandated minimum control measure requires the implementation of construction site stormwater runoff control measures. The Construction Activity Stormwater Runoff Control requirements are outlined in Section 6.4 of the Permit. The goal of the program is to prevent stormwater pollution from entering the city's MS4 from construction site activities. The construction activity stormwater runoff control program is required to include the following measures:

- An ordinance or other regulatory mechanism that requires the use of sediment and erosion control practices.
- An inventory of all construction activities that disturb or will disturb one (1) or more acres within the permitted area, including those that are less than one (1) acre but are part of a larger common plan of development that will ultimately disturb greater than one (1) acre.
- Written procedures for site inspections and enforcement of sediment and erosion control measures.
- Inspection frequency based on the following:
  - o Phase of construction
  - o Proximity to an impaired, not-attaining water or Outstanding Arizona Water
  - o Size of the construction activity (acreage disturbed)
  - o History of non-compliance (site or operator)
- Requirements to take all necessary follow-up actions to ensure compliance.
- Requirements for construction operators to implement sediment and erosion control BMPs appropriate for the conditions at the construction activity.
- Requirements to control wastes such as discarded building materials, paints, fertilizers, concrete wash out, chemicals, litter, and sanitary wastes.
- Written procedures for site plan review.

The program must also provide education to contractors and construction personnel on erosion and sediment control best management practices requirements. The public should also be allowed to submit information and considerations for the program.

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#### 6.2 SELECTED BMP

The City of Chandler has evaluated the construction activity stormwater runoff control component of their stormwater program and has identified BMPs to better inform the contractors of the importance of preventing stormwater pollution. The selected BMPs are summarized in Table 5, with a description of each BMP provided in this section. Detailed BMP information is provided in **Appendix E.** 

# TABLE 5 MCM 4 CONSTRUCTION ACTIVITY STORMWATER RUNOFF CONTROL BMP SUMMARY (Appendix E)

BMP	Description	
MCM 4-1	Site Plan Review	
MCM 4-2	Erosion and Sediment Control Plan Review	
MCM 4-3	Inspections	
MCM 4-4	Educational Materials for Construction Activity Stormwater Runoff Control	
MCM 4-5	Inventory	
MCM 4-6	Webpage	

#### MCM 4-1 Site Plan Review

*Description:* The City of Chandler will maintain a construction plan review program.

**Responsible Department:** Development Services Department - Development Engineering Division

*Measurable Goals:* The City of Chandler will perform site plan reviews. Procedures will be reviewed annually and updated as necessary.

*Metrics:* The total number of construction plan reviews will be reported annually.

#### MCM 4-2 Erosion and Sediment Control Plans

**Description:** The City of Chandler will require as part of the site plan submittal, an Erosion and Sediment Control Plan. For disturbed areas greater than 1 acre or less than 1 acre but are part of a larger development, the erosion control plan will be part of a Stormwater Pollution Prevention Plan.

**Responsible Department:** Development Services Department - Development Engineering Division

*Measurable Goals:* The City of Chandler will perform reviews of the Erosion and Sediment Control Plans. Procedures will be reviewed annually and updated as necessary.

*Metrics:* The total number of reviews of the Erosion and Sediment Control Plan will be tracked.

#### MCM 4-3 Inspections

**Description:** The City of Chandler will maintain a construction inspection program.



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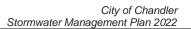
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**Responsible Department:** Management Services Department – Environmental Management Division in partnership with the Public Works and Utilities Department - Capital Projects Division and Development Services Department

*Measurable Goals:* The City of Chandler will perform construction inspections. Procedures will be reviewed annually and updated as necessary.

*Metrics:* Number of inspections conducted will be reported annually.

*Note:* If at the completion of the inspection no AZCON#, NOI or Construction General Permit is observed, found or provided by the facility, the city will communicate the site location, contractor and contact information to ADEQ for follow-up.

#### MCM 4-4 Educational Materials for Construction Activity Stormwater Runoff Control

**Description:** The City of Chandler will review and update educational materials for construction activity stormwater runoff control.

**Responsible Department:** Management Services Department – Environmental Management Division

*Measurable Goals:* The city will review the Construction Activity Stormwater Runoff Control program educational materials and/or brochures and update them as necessary.

*Metrics:* The number of education materials will be tracked. The type of educational material, the location of the distribution, and the number of items distributed.

#### MCM 4-5 Inventory

Description: The City of Chandler will maintain an inventory of construction sites.

**Responsible Department:** Management Services Department – Environmental Management Division in partnership with the Public Works and Utilities Department - Capital Projects Division and Development Services Department

*Measurable Goals:* The City of Chandler will maintain an inventory of construction sites. Procedures will be reviewed annually and updated as necessary.

*Metrics:* The inventory of construction sites will be tracked annually.

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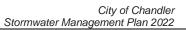
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#### MCM 4-6 Webpage

**Description:** The City of Chandler will maintain a webpage that will provide resources for builders and contractors such that they can comply with the requirements set forth in the SWMP.

**Responsible Department:** Management Services Department – Environmental Management Division

**Measurable Goals:** The City of Chandler will maintain an webpage specific to the prevention of stormwater pollution at construction sites. The information presented on the website along with any links to the website will be reviewed annually and updated as necessary.

*Metrics:* The number of visits to the webpage and the material downloaded will be tracked.

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# SECTION 7 MCM 5 POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

#### 7.1 OVERVIEW

The fifth mandated minimum control measure includes developing, implementing, and enforcing a program to address post-construction stormwater pollution from new development and redevelopment projects. The post-construction requirements are outlined in Section 6.5 of the Permit.

The program will contain a regulatory mechanism that will specify that owners or operators of new development and redevelopment sites discharging to the MS4, shall design, install, and maintain post-construction stormwater controls. The controls must reduce or eliminate the discharge of pollutants from the site after construction activities are completed. Educational materials will be provided to development owners and operators to help increase awareness and knowledge of post-construction stormwater runoff.

The program will include inspections to evaluate and approve post-construction stormwater controls. It will also contain an inventory system of all post-construction structural stormwater control measures installed and implemented at new development and redeveloped sites. These will include both public and private sector sites located within the permit area that discharge into the MS4. The inventory will be searchable by property location and other relevant criteria.

#### 7.2 SELECTED BMPs

The City of Chandler has evaluated the post-construction stormwater management in new development and redevelopment component of their stormwater program and has identified BMPs to address stormwater pollution from new development and redevelopment projects. The selected BMPs are summarized in Table 6, with a description of each BMP provided in this section. Detailed BMP information is provided in **Appendix F.** 

	-
BMP	Description
MCM 5-1	Inspections
MCM 5-2	Educational Materials
MCM 5-3	Inventory
MCM 5-4	Site Plan Review

# TABLE 6 MCM 5 Post-Construction Stormwater Management in New Development and Redevelopment BMP Summary (Appendix F)

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#### MCM 5-1 Inspections

**Description:** The City of Chandler will implement an inspection program that focuses on city storm sewer system structures and private storm sewer structures inspected during proactive inspections.

**Responsible Department:** Management Services Department – Environmental Management in partnership with the Public Works and Utilities Department - Capital Projects Division and Development Services Department

**Measurable Goals:** The city will conduct final and proactive inspections to identify potential concerns or deficiencies. Private structures found to be in need of maintenance or in disrepair will be addressed with the property owner. Inspection process and procedures will be reviewed and updated as necessary.

*Metrics:* The location, date, and type of inspections will be tracked. Inspection information will be recorded. Structures in need of maintenance or repair will be tracked.

#### MCM 5-2 Educational Materials

**Description:** The City of Chandler will create, review and update educational materials for post construction management.

**Responsible Department:** Management Services Department – Environmental Management

*Measurable Goals:* The city will review educational materials for post construction management. Educational materials will be reviewed and updated as necessary.

*Metrics:* The number of education materials will be tracked. The type of educational material, the location of the distribution, and the number of items distributed will be tracked.

#### MCM 5-3 Inventory

**Description:** The City of Chandler will maintain an up to date inventory of postconstruction structural control measures.

**Responsible Department:** Management Services Department – Environmental Management and Development Services – GIS Analyst

*Measurable Goals:* The city will maintain an inventory of post-construction structural control measures in the GIS system. Structures will be added into Chandler's existing system following final inspections and submittal of As-Built information. Additional features may be added and/or revised when necessary.

*Metrics:* The number of completed projects added to the inventory.

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#### MCM 5-4 Site Plan Review

**Description:** The City of Chandler will review civil plan submittals to ensure compliance with City standards and requirements.

**Responsible Department:** Public Works and Utilities Department - Capital Projects Division and Development Services Department **Measurable Goals:** The city will perform a technical evaluation and review of building and site plans and design and construction documents to ensure compliance with city development ordinances and International Construction Codes, including but not limited to, architectural, structural, electrical, plumbing, mechanical, fire safety, health, and other applicable codes.

*Metrics:* Plans will be reviewed throughout the year. The number of reviews will be tracked.

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# SECTION 8 MCM 6 POLLUTION PREVENTION PLAN AND GOOD HOUSEKEEPING MUNICIPAL OPERATIONS

#### 8.1 OVERVIEW

The sixth mandated minimum control measure includes developing and implementing a pollution prevention program for municipal operations. The municipal operations requirements are outlined in Section 6.6 of the Permit. The goal of this program is to prevent or reduce pollutant runoff and protect water quality from municipal facilities and their activities.

The program must include the following activities:

- **Develop** an inventory of municipal operations.
- **Prioritize** risk of municipal facilities based on risk to discharge pollutants.
- Implement an inspection schedule based on prioritized risk.

RISK	INSPECTION SCHEDULE
HIGH	QUARTERLY
MEDIUM	TWICE PER YEAR
LOW	ANNUALLY

- Update municipally owned or operated facilities priority status
- **Modify** inspection frequency based on inspection findings.
- **Implement** stormwater controls to reduce or eliminate the discharge of pollutants.
- Implement an employee training program
- **Develop** maintenance activities, maintenance schedules, and long-term inspection procedures.

The program will also define street sweeping requirements to keep the roadway clean of sediment, dust and debris that could enter the MS4.

#### 8.2 MUNICIPAL FACILITIES

The City of Chandler has evaluated their municipal facilities that are not covered by a separate AZPDES permit to prioritize those facilities that will require site specific BMPs. Municipal facilities are ranked as either medium or low risk.

#### 8.3 MUNICIPAL OPERATIONS

Specific O&M procedures and controls will be developed for Armstrong Yard as part of the program. These will include the installation of debris bins and the inspection and maintenance of equipment wash down areas. The debris bins will be used to collect dirt, debris, and street sweepings. The bins will contain the material and prevent it from being carried off site or into the MS4 system by stormwater. The equipment washdown areas will be regularly inspected to ensure



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that equipment wash down water, which may contain oil and other contaminants, is not being discharged to the MS4. Because the Armstrong yard includes fleet vehicle maintenance, drip pans will be placed under the vehicles brought to the facility to capture leaking fluids. Spill kits will be placed throughout the Armstrong Facility to provide easy access to the absorbent materials required to clean up spills and leaking fluids.

The program will also address the Recycling, Solid Waste Collection Center/Household Hazardous Waste Collection Facility (RSWCC/HHW). The facility is operated by city staff and collects waste from city residents. Collection of the waste will help to prevent illicit discharges or dumping of these materials that can potentially enter the MS4 and pollute stormwater runoff.

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#### 8.4 SELECTED BMPs

The City of Chandler has evaluated the Pollution Prevention and Good Housekeeping for Municipal Operations component of their stormwater program and has identified BMPs to reduce stormwater pollution. The selected BMPs are summarized in Table 7, with a description of each BMP provided in this section. The site specific BMPs are presented in detail in **Appendix G**.

# TABLE 7 MCM 6 POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS BMP SUMMARY (APPENDIX G)

BMP	Description	
MCM 6-1a	Inventory of Municipal Operations and Site Inspections	
MCM 6-1b	Prioritization of Municipal Operations	
MCM 6-2	Provide Recycling and Household Hazardous and Non-Hazard Waste Collection	
MCM 6-3	Implement Controls Armstrong Yard and Recycling, Solid Waste Collection Center	
MCM 6-4	Implement Spill Prevention Controls and Countermeasures Armstrong Yard	
MCM 6-5	Implement Spill Prevention Controls and Countermeasures Recycling, Solid Waste Collection Center	
MCM 6-6	Inspections and Maintenance Procedures Armstrong Yard	
MCM 6-7	Inspections and Maintenance Procedures Recycling Solid Waste Collection Center and Hazardous Waste Facility	
MCM 6-8	Street Sweeping	
MCM 6-9	Good House Keeping Operations and Inspections (Other Facilities)	
MCM 6-10	Operations and Maintenance of Storm Sewer System	
MCM 6-11	Training	

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### MCM 6-1a Inventory of Municipal Operations and Site Inspections

**Description:** The City of Chandler will develop an inventory of city-owned facilities to be used as a resource for the implementation of the Good Housekeeping measures.

**Responsible Department:** Management Services Department – Environmental Management Division

*Measurable Goals:* A list of city-owned facilities will be established and catalogued. The list will be added to the City of Chandler's GIS System.

*Metrics:* The first permit year, the list of facilities, their location and their prioritization rank will be provided as part of the Annual Report. Subsequent years, the current prioritization ranked facilities will be reviewed and list will be updated with name, location, and prioritization rank of new facilities.

#### MCM 6-1b Prioritization of Municipal Operations

**Description:** The City of Chandler will priortize the inventory of city-owned facilities such that an inspeciton schedule can be developed.

**Responsible Department:** Management Services Department – Environmental Management Division

*Measurable Goals:* Using the list of city-owned facilities, each facility will be ranked based on their operation, presence of chemicals and potential to release pollutants into the MS4.

*Metrics:* The first permit year, the list of facilities, their location and their prioritization rank will be provided as part of the Annual Report. Subsequent years, the current prioritization ranked facilities will be reviewed and list will be updated with name, location, and prioritization rank of new facilities.

# MCM 6-2 Provide Recycling and Household Hazardous and Non-hazardous Waste Collection

*Description:* The City of Chandler will manage a Household Hazardous Waste Collection Facility.

**Responsible Department:** Management Services Department – Environmental Management Division

*Measurable Goals:* The city will track usage, amount of material reused, recycled, or properly managed for disposal.

*Metrics:* The number of residents dropping off materials will be tracked. The weight of materials collected will be tracked. The weight of material that is recycled, landfilled, or disposed of by other means will be tracked. Information on the amount of materials collected will be tracked.

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# MCM 6-3 Implement Controls at the Armstrong Yard and the Recycling, Solid Waste Collection Center

**Description:** The City of Chandler will implement control measures and procedures to prevent floatables, trash and other pollutants from entering the MS4.

**Responsible Department:** Management Services Department – Environmental Management Division

*Measurable Goals:* The city will track the types of material stored, collected, and deposed of at the Armstrong Yard and the Recycling, Solid Waste Collection Center.

*Metrics:* The type of material stored, collected, and deposed will be tracked. The quantity of materials along with the number of bins located on the site will be tracked.

# MCM 6-4 Implement Spill Prevention Controls and Countermeasures at the Armstrong Yard

**Description:** The City of Chandler will implement spill prevention controls and countermeasures to prevent floatables, trash and other pollutants from entering the MS4 from the Armstrong Yard.

**Responsible Department:** Management Services Department – Environmental Management Division

**Measurable Goals:** The city will track the quantities of materials brought to the site during the permit year. The city will track the number of bins/containers used to store liquid waste generated during the servicing of vehicles and equipment. The number of spill kits used during the permit year will be tracked.

*Metrics:* The type of material and total amount of material brought to repair vehicles will be documented. The number of bins located on the site will be documented. The number of spill kits used during a permit year will be documented.

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**Description:** The City of Chandler will implement spill prevention controls and countermeasures to prevent floatables, trash and other pollutants from the Recycling, Solid Waste Collection Center from entering the MS4.

Responsible Department: Public Works Utilities - Solid Waste Division

**Measurable Goals:** The city will track the liquid chemicals and waste brought to the Recycling, Solid Waste Collection Center. The city will track the number of waste bins/containers used to collect on-site generated waste will be tracked. The number of spill kits used during a given permit year will be tracked.

*Metrics:* The types and quantities of materials brought to the yard and the number of spill kits used will be documented during the permit term.

### MCM 6-6 Inspect and Maintain Armstrong Yard

**Description:** The City of Chandler will inspect and maintain the BMPs in order to reduce floatables, trash and other pollutants associated with the activities at the Armstrong Yard from entering the MS4.

**Responsible Department:** Management Services Department – Environmental Management Division/ Public Works Utilities – Solid Waste Division

*Measurable Goals:* The city will track the number of inspections, the results of the inspections and work orders generated from the inspections.

*Metrics:* The number, dates and times and results of the inspections will be documented. The number of works orders generated as a result of the inspections will be documented. Any revisions to the BMPs will be documented.

## MCM 6-7 Inspect and Maintain the Recycling, Solid Waste Collection Center

**Description:** The City of Chandler inspect and maintain the BMPs in order to reduce floatables, trash and other pollutants associated with the activities at the Recycling, Solid Waste Collection Center from entering the MS4.

**Responsible Department:** Management Services Department – Environmental Management Division/ Public Works Utilities – Solid Waste Division

*Measurable Goals:* The city will track the number of inspections, the results of the inspections and work orders generated from the inspections.

*Metrics:* The number, dates and times and results of the inspections will be documented. The number of work orders generated as a result of the inspections will be documented. Any revisions to the BMPs will be documented. The results of the inspection effort will be tracked during the permit term.

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## MCM 6-8 Street Sweeping

Description: The City of Chandler will maintain a street sweeping program.

Responsible Department: Public Works Utilities - Street Sweeping Division

*Measurable Goals:* The city will track street sweeping metrics including lane miles swept and amount of materials removed.

*Metrics:* Amount of lane miles swept and materials removed will be tracked during the permit term.

### MCM 6-9 Good Housekeeping Operations and Inspections (Other Facilities)

**Description:** The city will inspect and maintain the BMPs in order to reduce floatables, trash and other pollutants associated with the activities at the low and medium risk municipal operations from entering the MS4.

**Responsible Department:** Management Services Department – Environmental Management Division

*Measurable Goals:* The city will track the number of inspections, the results of the inspections and workorders generated from the inspections of the low and medium risk operations will be tracked.

*Metrics:* The number, dates and times and results of the inspections will be documented. The number of work orders generated as a result of the inspections will be documented. Any revisions to the BMPs will be documented. The results of the inspection effort will be tracked during the permit term.

#### MCM 6-10 Operation and Maintenance of the Storm Sewer Systems

**Description:** The City of Chandler will conduct maintenance of the city storm sewer system.

**Responsible Department:** Management Services Department – Environmental Management Division/ Environmental Services Manager/Environmental Services Program Coordinator /Environmental Services Senior Technician and Public Works Utilities – Streets Stormwater Division

**Measurable Goals:** The city storm sewer system structures identified during proactive inspections will be maintained and work orders will be generated and tracked when maintenance needs are identified.

*Metrics:* The number, dates and times and results of the inspections will be documented. The number of works orders generated as a result of the inspections will be documented.

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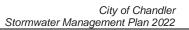
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## MCM 6-11 Training

**Description:** The City of Chandler will provide training on Pollution Prevention and Good Housekeeping Techniques.

**Responsible Department:** Management Services Department – Environmental Management Division

**Measurable Goals:** Appropriate city staff will participate in stormwater training focused on Pollution Prevention and Good Housekeeping Practices. Participation will be tracked and evaluated for effectiveness and modified as necessary.

*Metrics:* The number of city staff at each training session will be tracked. The training topic, date, and number of individual attendees at each event will be tracked. The total number of city Departments and Divisions participating will be tracked. Number of employees trained will be reported annually.

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## SECTION 9 SAMPLING AND ANALYSIS PLAN

#### 9.1 OVERVIEW

In compliance with the requirements set forth in Section 7.2 of the Permit, the City of Chandler has opted to create a Sampling and Analysis Plan (SAP) to document the processes and procedures used for Characterization Monitoring. These requirements are summarized in this section. The SAP will be incorporated into **Appendix H**. The results of the testing associated with the Sampling and Analysis Plan will be submitted electronically within 30 days after receiving the laboratory results through the <u>myDEQ</u> portal as a Discharge Monitoring Report (DMR). The results of the testing will be stored for a period of three (3) years following the expiration of the current permit.

#### 9.2 MONITORING LOCATIONS

The City of Chandler will collect stormwater samples at three (3) locations (General Permit <u>AZG2021-002</u> Section 7.2.4) as presented in Table 9.

#### TABLE 8 CHARACTERIZATION MONITOR LOCATIONS

Location ID	Location Description
Out-10-49-008	Price Fwy 101 Frontage Rd & Galveston St Thude Park
ST-CB-11-42-001	South side of Chandler Blvd @ (Gila Drain & Chandler Blvd)
ST-SCP-10-43-005	South side of Gila Drain & Gila Springs Blvd

#### 9.3 MONITORING TIMELINE

The city will collect a single stormwater sample at each of the monitoring locations during the first three and one-half years of the effective date of the permit (General Permit <u>AZG2021-002</u> Section 7.2.1).

#### 9.4 QUALIFYING STORM EVENT

Sampling will collect a "first flush" sample from the first 30 minutes of a stormwater discharge from a qualifying storm event (General Permit <u>AZG2021-002</u> Section 7.2.2).

For the purpose of the SWMP, "a qualifying storm event" is rainfall in the amount of 0.1 inches or more and a resulting discharge within the first 24-hours of the event.

#### 9.5 SAMPLE TESTING

The stormwater sample will be tested for the following constituents within the following classes. A complete list of chemicals to be sampled for is provided in **Appendix H**. The SAP will be incorporated into Appendix H upon completion.

- 1. Metals
- 2. Inorganics
- 3. Volatile Organic Compounds
- 4. Semi- Volatile Organic Compounds (Acid/Base/Neutral)

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Section 9: Sampling and Analysis Plan

Section 10: Annual Program Evaluation Protocol

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## SECTION 10 ANNUAL PROGRAM EVALUATION PROTOCOL

Because the SWMP is a living document, it will be reviewed annually, and the measurable goals associated with the MCMs will be tracked. The annual SWMP evaluation will include an assessment of the effectiveness of the city's BMPs as well as the progress made towards achieving each of the BMP objectives.

The annual program evaluation protocol shall follow the following steps:

- The Management Services Department Environmental Management Division shall contact each responsible party requesting a summary of the progress that was made on each BMP over the course of the permit year. A minimum of 3 weeks will be provided for each responsible party to provide their information and backup data.
- 2. The Management Services Department Environmental Management Division will review the information received and compare that to the BMP requirements outlined in this SWMP to ensure that the BMPs are being implemented.
- 3. The Management Services Department Environmental Management Division will discuss with the other departments the efficacy of the BMPs and if any modifications are needed or recommended.
- 4. The Management Services Department Environmental Management Division will compile the information received into an Annual Report.
- 5. The Annual Report will be submitted on or before September 30<sup>th</sup> of each permit year.
- 6. Discharge Monitoring Reports (DMR's) for recordation of the results for Characterization Monitoring shall be submitted within 30 days after receiving the laboratory results.
- 7. As required, the Annual Report is available to the public for review online (<u>www.chandleraz.gov</u>) and will be posted on the city's stormwater webpage for the public's information.
- 8. The backup records compiled for each Annual Report will be saved for a minimum of three (3) years following the permit term.

The BMPs and the SWMP may be updated and/or revised based on the results of the annual evaluation. Any BMP modifications will be made in accordance with Section 8.1 of the Permit. Minor updates will occur at the staff level and will consist of bookkeeping matters, such as changes in who is responsible for a specific BMP, etc. Major updates will include changes in the SWMP, such as the implementation of new BMPs or the discontinuance of ineffective ones, or policy changes. Documentation justifying a BMP modification will include the following:

- 1. Any analyses or supporting information used in determining that the BMP was ineffective or infeasible.
- 2. Expectations on the effectiveness of the replacement BMP; and
- 3. An analysis or supporting information as to why the replacement BMP is expected to achieve the defined goals of the BMP to be replaced.

Revisions made to the SWMP or the BMPs will be documented with the information stored in **Appendix K**.

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## SECTION 11 REFERENCES

- Arizona Department of Environmental Quality "Arizona Pollutant Discharge and Elimination System General Permit for Stormwater Discharges from Small Municipal Separate Sewer System to Protected Surface Waters", September 30, 2021.
- Arizona Department of Environmental Quality "Arizona Pollutant Discharge and Elimination System (AZPDES) Small Municipal Separate Storm Sewer System (MS4) 2021 Fact Sheet for AZG2021-002."
- 3) City of Chandler "Chandler Municipal Code and City Charter" May 12, 2022.

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## APPENDIX A DRAINAGE MAP

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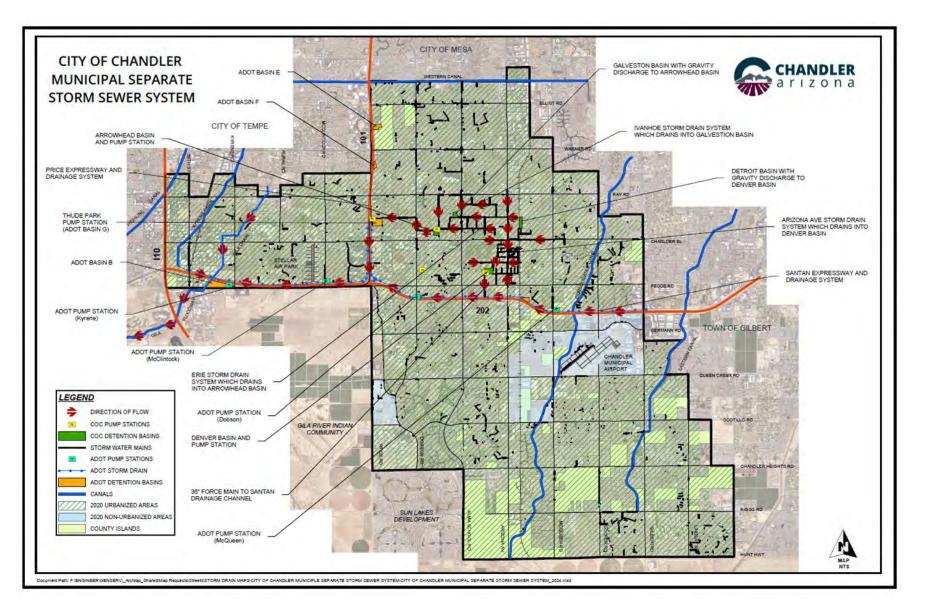
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### City of Chandler Small Municipal Separate Storm Sewer Systems (MS4) Drainage Map





## APPENDIX B MCM 1 PUBLIC EDUCATION AND OUTREACH BMPS

- MCM 1-1 Educational Materials
- MCM 1-2 Educational Events
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#### MCM 1-1 Educational Materials

**Objective:** Develop and distribute educational materials with specific messages for specific target groups to increase knowledge and change behavior of the public so that pollutants in stormwater are reduced.

Educational materials may be print based such as articles, brochures, utility bill inserts, fact sheets, posters, signage, promotional items, etc. Additional materials may be developed and delivered via electronic communications such as the city's website, Chandler 11 public access channel, and/or social media outlets.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/ Environmental Services Manager/ Environmental Services Program Coordinator /Environmental Services Senior Technician.

**Procedure:** Assigned staff will develop and distribute educational materials with specific messages that include at least two (2) specific educational messages directed at two (2) distinct target groups for each year of the permit term. The educational messages may include but are not limited to general awareness, specific pollutants and/or pollutant sources. Examples of messages may include, but are not limited to "Only Rain in the Storm Drain", "Be the Solution to Stormwater Pollution"," Keep Clutter out of the Gutter", "Pick up after your pet", "Do you know where Stormwater Pollutants End Up?", etc. Target groups may include but are not limited to general public, residential communities, homeowner's associations, property management companies, restaurants, commercial facilities, automotive repair facilities, retail shopping centers, construction companies and industrial facilities.

Equipment: N/A

Target Group: General Public (Homeowners, Business Owners, Contractors)

**Measurable Goal(s):** The number of educational messages and their respective target groups will be documented. All educational messages and their respective distribution will be quantified to establish an approximate numerical value representative of each type of message and group. A form to track the distributed material on an annual basis is provided in **Appendix L.** 

**Data Collection, Recordkeeping and Reporting:** Data collection will be conducted throughout the permit term. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term. Applicable information associated with the BMP will be reported in each Annual Report during the permit term.

**Legal Authority:** 40 CFR 122.34(b)(1)

References: AZPDES Small MS4 General Permit (Section 6.1) AZDEQ.gov

Implementation Status: Current BMP

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#### MCM 1-2 Educational Events

**Objective:** Identify and participate in educational events located in the city with the goal of increasing knowledge and changing behavior of the public so that pollutants in stormwater are reduced.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/ Environmental Services Program Coordinator/ Environmental Services Senior Technician

**Procedure:** Assigned staff will participate in public education and outreach events and activities throughout the city and actively engage the public whenever practicable. Such events may involve visual displays and promotional giveaway items that either relay specific messages and/or directly relate to pollutant sources. The educational messages may include, but are not limited to general awareness, specific pollutants and/or pollutant sources. Examples of messages may include but are not limited to "Only Rain in the Storm Drain", "Be the Solution to Stormwater Pollution", "Keep Clutter out of the Gutter", "Pick up after your pet", "Do you know where Stormwater Pollutants End Up?" etc.

**Equipment:** Table throw, table(s), chair(s), vertical banners, brochures, promotional giveaway items, prize wheel, plinko game, literature/brochure holders, storage containers, business cards, hand truck.

**Target Group:** General Public (Homeowners and Homeowner Associations), Contractors/Developers, Business Owners, Commercial and Industrial Facility Operators, Educators)

**Measurable Goal(s):** Assigned staff will participate in outreach events each permit term. Participation at events will be documented. A dedicated data table or form will be developed and maintained with other records by permit year.

**Data Collection, Recordkeeping and Reporting:** Data collection will be conducted throughout the permit term. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term. Applicable information associated with the BMP will be reported in each Annual Report during the permit term.

Legal Authority: 40 CFR 122.34(b)(1)

**References:** AZPDES Small MS4 General Permit (Section 6.1) <u>AZDEQ.gov</u>

Implementation Status: Current BMP

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#### MCM 1-3 Stormwater Webpage

**Objective:** Develop and maintain a city website that conveys pertinent information regarding the city's Stormwater Management Program with the goal of increasing knowledge and changing the behavior of the public so that pollutants in stormwater are reduced. The posted information includes and electronic copy of the SWMP and the Annual Report.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/ Environmental Services Manager/ Environmental Services Program Coordinator

Updates to the website will be conducted by the Communications and Public Affairs Department (CAPA)/Digital Content Strategist

**Procedure:** Assigned staff will periodically review the web-content to ensure that the subject matter and links to resources are still relevant and accurate. Updates to the website will occur when content is no longer applicable to the program or whenever new content, or educational materials are available. Content may include but is not limited to general information, potential stormwater pollutants and sources, the SWMP, city Code, FAQ's, contact information for questions or to report discharges into the MS4, educational materials, brochures, current and prior Annual Reports and links to stormwater related resources relevant to the general public, Homeowner's Associations, the construction industry, industrial facilities, etc. The review will also verify that the links on the webpage are reflected in the SWMP and the distributed materials from MCM 1-1. Assigned staff from the Environmental Management Division will provide the city's Digital Content Strategist with necessary revisions.

Equipment: Internet Service Provider/Webhosting Platform

**Target Group:** General Public (Homeowners and Homeowner Associations), Contractors/Developers, Business Owners, Commercial and Industrial Facility Operators, Educators)

**Measurable Goal(s):** The website will be reviewed a minimum of one time per year to ensure that content is still relevant. Additional reviews may occur whenever new content is added. Email requests for revisions to the website will be maintained in a pdf document within the most current permit year folder. The number of visits and page views will be reported.

**Data Collection, Recordkeeping and Reporting:** Data collection will be conducted throughout the permit term. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term. Applicable information associated with the BMP will be reported in each Annual Report during the permit term.

Legal Authority: 40 CFR 122.34(b)(1)

References: AZPDES Small MS4 General Permit (Section 6.1) AZDEQ.gov

City of Chandler Stormwater Program Website: https://www.chandleraz.gov/residents/water/stormwater

Implementation Status: Current BMP

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#### MCM 1-4 Regional Coordination

**Objective:** Maintain membership and be an active participant in STORM and/or other professional organizations (i.e., AZ Water; MAG) with the goal of collectively promoting and distributing stormwater education and outreach throughout the greater Phoenix metropolitan area.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/ Environmental Services Program Coordinator

**Procedure:** Assigned staff will participate in regular monthly meetings, seminars, and outreach events as often as possible. Staff will be encouraged to volunteer for positions on committees, sub-committees and/or on the executive board.

Equipment: N/A

Target Group: City Staff and General Public

**Measurable Goal(s):** Assigned staff will participate in activities associated with STORM with a goal of attending as many of the regular monthly meetings as possible and serve on the executive board and/or participate in at least one committee or subcommittee during each year of the permit term. Participation in STORM will be documented through monthly STORM meeting minutes captured and distributed by the STORM Secretary. The STORM Annual Report will be maintained with other records by permit year.

**Data Collection, Recordkeeping and Reporting:** Data collection will be conducted throughout the permit term. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term. Applicable information associated with the BMP will be tracked during the permit term.

**Legal Authority:** 40 CFR 122.34(b)(1)

References: AZPDES Small MS4 General Permit (Section 6.1) AZDEQ.gov

City of Chandler Stormwater Program Website: (https://www.chandleraz.gov/residents/water/stormwater)

STormwater Outreach for Regional Municipalities (http://www.azstorm.org)

AZ Water Association (http://www.azwater.org/group/stormwater)

Implementation Status: Current BMP

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## APPENDIX C MCM 2 PUBLIC PARTICIPATION AND INVOLVEMENT BMP DETAILS

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- MCM 2-2 Community Email
- MCM 2-3 Stormwater Webpage
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#### MCM 2-1 Community Hotline

**Objective:** Maintain a stormwater hotline that is available to the general public and city staff with the intention of providing a dedicated source of information associated with the city's SWMP, including, but not limited to general information, reporting of illicit discharges, and answering questions regarding the SWMP.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/ Environmental Services Program Coordinator /Environmental Services Senior Technician

**Procedure:** The hotline will consist of a dedicated telephone number with voice messaging capabilities. Telephone calls associated with the reporting of illicit discharges into city right-of-way or calls in reference to standing water and storm drainage system maintenance will be recorded on a respective phone message book. The following information including, but not limited to the caller's name, phone number, date, time and description of the issue or concern and the relevant reference to the Lucity database work request or workorder number will be captured.

Equipment: Dedicated phone message book(s), writing utensil, telephone

**Measurable Goal(s):** The number of calls associated with the reporting of illicit discharges will be tabulated and reported within the Annual Report.

**Data Collection, Recordkeeping and Reporting:** Data collection will be conducted throughout the permit term. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term. Applicable information associated with the BMP will be reported in each Annual Report during the permit term.

Legal Authority: 40 CFR 122.34(b)(2)

References: AZPDES Small MS4 General Permit (Section 6.2) <u>AZDEQ.gov</u>

Hotline Phone Number: (480) 782-3503 and/or (480) 782-3506

Implementation Status: Current BMP

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#### MCM 2-2 Community Email

**Objective:** Maintain a stormwater email that is available to the general public and city staff with the intention of providing a dedicated source of information associated with the city's SWMP, including, but not limited to general information, reporting of illicit discharges, and answering questions regarding the SWMP, etc.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/ Environmental Services Program Coordinator/ Environmental Services Senior Technician

**Procedure:** The hotline will consist of a dedicated email directed to the Environmental Management Team. Emails associated with the reporting of illicit discharges into city right-of-way or in reference to standing water and storm drainage system maintenance will be documented, tracked and forwarded to the Environmental Services Program Coordinator. The email will include an automatic reply acknowledging receipt of the email and that a member of Management Services Department – Environmental Management Division may follow up to get more information. The following information will be documented, emailer's name, email address, date and time of email and description of the issue or concern. Emails requiring a work request or workorder will be forwarded to the appropriate city staff.

Equipment: Dedicated email.

**Measurable Goal(s):** The log of illicit discharges will be tabulated and reported within the Annual Report.

**Data Collection, Recordkeeping and Reporting:** Data collection will be conducted throughout the permit term. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term. Applicable information associated with the BMP will be reported in each Annual Report during the permit term.

Legal Authority: 40 CFR 122.34(b)(2)

References: AZPDES Small MS4 General Permit (Section 6.2) AZDEQ.gov

stormwater@chandleraz.gov

Implementation Status: Current BMP

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#### MCM 2-3 Stormwater Webpage

**Objective:** Develop and maintain a city website that conveys pertinent information regarding the city's Stormwater Management Program with the goal of increasing knowledge and changing the behavior of the public so that pollutants in stormwater are reduced. The posted information includes and electronic copy of the SWMP and the Annual Report.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/ Environmental Services Manager/ Environmental Services Program Coordinator

Updates to the website will be conducted by the Communications and Public Affairs Department (CAPA)/Digital Content Strategist

**Procedure:** Assigned staff will periodically review the web-content to ensure that the subject matter and links to resources are still relevant and accurate. Updates to the website will occur when content is no longer applicable to the program or whenever new content, or educational materials are available. Content may include but is not limited to general information, potential stormwater pollutants and sources, the SWMP, City Code, FAQ's, contact information for questions or to report discharges into the MS4, educational materials, brochures, current and prior Annual Reports and links to stormwater related resources relevant to the general public, Homeowner's Associations, the construction industry, industrial facilities, etc. The review will also verify that the webpages are reflected in the SWMP and the distributed materials from MCM 1-1.

Assigned staff from the Environmental Management Division will provide the city's Digital Content Strategist with necessary revisions.

Equipment: Internet Service Provider/Webhosting Platform

**Target Group:** General Public (Homeowners and Homeowner Associations, Contractors/Developers, Business Owners, Commercial and Industrial Facility Operators, Educators)

**Measurable Goal(s):** The website will be reviewed a minimum of one time per year to ensure that content is still relevant. Additional reviews may occur whenever new content is added. Email requests for revisions to the website will be maintained in a pdf document within the most current permit year folder. The number of visits and page views will be reported.

**Data Collection, Recordkeeping and Reporting:** Data collection will be conducted throughout the permit term. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term. Applicable information associated with the BMP will be reported in each Annual Report during the permit term.

Legal Authority: 40 CFR 122.34(b)(2)

References: AZPDES Small MS4 General Permit (Section 6.2) AZDEQ.gov

City of Chandler Stormwater Program Website: https://www.chandleraz.gov/residents/water/stormwater

Implementation Status: Current BMP



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#### MCM 2-4 HOA/Neighborhood Association Meetings

**Objective:** Attend HOA/Neighborhood Association meetings and involve elements of the SWMP.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/ Environmental Services Manager/ Environmental Services Program Coordinator and/or Neighborhood Resources Department/ Neighborhood Programs Division staff.

**Procedure:** The city will inform the public of applicable scheduled meetings and/or notices associated with the SWMP. Such activities will be in accordance with state and local public notice requirements.

Equipment: Internet Service Provider/Webhosting Platform

Target Group: General Public (Homeowners and Homeowner Associations)

**Measurable Goal(s):** The purpose of the meeting and number of attendees in attendance will be documented. Such information will be captured with sign-in sheets and the number of attendees will be tracked. When a meeting is held in a virtual environment, a screen capture of the participant and a recording of the meeting will be preserved. A dedicated data table or form will be developed and maintained to assist with reporting this information as needed.

**Data Collection, Recordkeeping and Reporting:** Data collection will be conducted throughout the permit term. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term. Applicable information associated with the BMP will be reported in each Annual Report during the permit term.

Legal Authority: 40 CFR 122.34(b)(2)

References: AZPDES Small MS4 General Permit (Section 6.2) AZDEQ.gov

Implementation Status: Current BMP



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#### MCM 2-5 Outreach Events

**Objective:** Identify and participate in educational events in the city with the goal of increasing knowledge and changing the behavior of the public so that pollutants in stormwater are reduced.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/Environmental Services Program Coordinator/Environmental Services Senior Technician

**Procedure:** Assigned staff will participate in public education and outreach events and activities throughout the city and actively engage the public whenever practicable. Such events may involve visual displays and promotional giveaway items that either relay specific messages and/or directly relate to pollutant sources. The educational messages may include, but are not limited to general awareness, specific pollutants and/or pollutant sources. Examples of messages may include "Only Rain in the Storm Drain", "Be the Solution to Stormwater Pollution", "Keep Clutter out of the Gutter", "Pick up after your pet", "Do you know where Stormwater Pollutants End Up?" etc.

**Equipment:** Table throw, table(s), chair(s), vertical banners, brochures, promotional giveaway items, prize wheel, plinko game, literature/brochure holders, storage containers, business cards, hand truck.

**Target Group:** General Public (Homeowners and Homeowner Associations, Contractors/Developers, Business Owners, Commercial and Industrial Facility Operators, Educators)

**Measurable Goal(s):** Assigned staff will participate in outreach events for each year of the permit term. Participation at events will be documented. A dedicated data table or form will be developed and maintained with other records by permit year.

**Data Collection, Recordkeeping and Reporting:** Data collection will be conducted throughout the permit term. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term. Applicable information associated with the BMP will be reported in each Annual Report during the permit term.

Legal Authority: 40 CFR 122.34(b)(2)

References: AZPDES Small MS4 General Permit (Section 6.2) AZDEQ.gov

Implementation Status: Current BMP

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#### MCM 2-6 Environmental Art Contest

**Objective:** Implement an annual art contest focusing on fourth grade students. Submitted artwork will correspond to established messages associated with the city's stormwater pollution prevention, recycling and water conservation programs.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/Environmental Services Program Coordinator/Environmental Services Senior Technician and/or Solid Waste Services/Recycling Coordinator and/or Environmental Resources/Water Conservation Coordinator and/or Water Conservation Specialist.

**Procedure:** Contest applications will be distributed to 4<sup>th</sup> grade teachers associated with charter, private and public schools located in Chandler. Slogans for the artwork may include but are not limited to Stormwater: "Only Rain in the Storm Drain", "Keep Clutter out of the Gutter" or "Be the Solution to Stormwater Pollution". Recycling: "Every Day is Earth Day–Recycle!", "Reduce, Reuse, Recycle", "Chandler Recycles– Do You?". Water Conservation: "Every Drop Counts!", "Water Use it Wisely", "Be a Water Saver". Artwork received by the designated deadline will be sorted by the respective programs. Assigned staff in each program will assign a small group to select six (6) entries for each category, with the top four (4) entries of each category being included in a twelve-month calendar. The additional two (2) entries for each category will be included on posters. A single entry that has incorporated a broader environmental message other than the established slogans will be selected for the cover of the calendar. Assigned program staff will select the cover artwork.

An environmental art contest ceremony honoring the 19 contest winners will take place at the City Council Chambers or similar venue. All contest winners and their families will be invited to attend. The Mayor, City Council members, City Manager, Assistant City Managers, Department Directors and Division Managers will be invited to attend. The calendars and posters may be distributed to the general public, local schools, city staff, etc.

**Equipment:** Laptop computer, microphone, public address system, podium, tables, projection equipment, large screen monitors and other video equipment.

Target Group: General Public (Schools and Educators)

**Measurable Goal(s):** The number of contest entries, number of participating schools and the quantity of materials printed for distribution will be reported within the Annual Report.

**Data Collection, Recordkeeping and Reporting:** Data collection will be conducted throughout the permit term. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term. Applicable information associated with the BMP will be reported in each Annual Report during the permit term.

Legal Authority: 40 CFR 122.34(b)(2)

References: AZPDES Small MS4 General Permit (Section 6.2) AZDEQ.gov

Implementation Status: Current BMP

## **QUICK LINKS**

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### MCM 2-7 Regional Coordination

**Objective:** Maintain membership and be an active participant in STORM and/or other professional organizations (i.e., AZ Water; MAG) with the goal of collectively promoting and distributing stormwater education and outreach throughout the greater Phoenix metropolitan area.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/Environmental Services Program Coordinator

**Procedure:** Assigned staff will participate in regular monthly meetings, seminars, and outreach events as often as possible. Staff will be encouraged to volunteer for positions on committees, sub-committees and/or on the executive board.

Equipment: N/A

Target Group: City Staff and General Public

**Measurable Goal(s):** Assigned staff will participate in activities associated with STORM with a goal of attending as many of the regular monthly meetings as possible. Participation in STORM will be documented through monthly STORM meeting minutes captured and distributed by the STORM Secretary. The STORM Annual Report will be maintained with other records by permit year.

**Data Collection, Recordkeeping and Reporting:** Data collection will be conducted throughout the permit term. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term. Applicable information associated with the BMP will be reported in each Annual Report during the permit term.

Legal Authority: 40 CFR 122.34(b)(2)

References: AZPDES Small MS4 General Permit (Section 6.2) AZDEQ.gov

City of Chandler Stormwater Program Website: (https://www.chandleraz.gov/residents/water/stormwater)

STormwater Outreach for Regional Municipalities

(http://www.azstorm.org)

AZ Water Association (http://www.azwater.org/group/stormwater)

Implementation Status: Current BMP

## **QUICK LINKS**

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#### MCM 2-8 Annual SWMP Review

**Objective:** Promote Public Participation and Involvement in an annual review of the city's Stormwater Management Program.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/Environmental Services Program Coordinator /Environmental Services Senior Technician

**Procedure:** The SWMP and Annual Reports will be posted on the city's Stormwater Program website year-round. The city will promote a 30-day timeframe for the public review of the SWMP on an annual basis. City staff will review all public comments that are submitted and will modify and update the SWMP based on feedback received, when practicable.

Feedback will be solicited through a web form that will be linked to the city's stormwater webpage or received via email. The web form and/or comments received via email will allow the public to submit comments on the SWMP. The web form and/or opportunity to submit comments via email will be active during the 30-day comment period.

Equipment: N/A

**Target Group:** General Public (Homeowners and Homeowner Associations, Contractors/Developers, Business Owners, Commercial and Industrial Facility Operators, Educators)

**Measurable Goal(s):** All comments that are received will be documented and evaluated for inclusion/modification of the SWMP. The comments received and any changes to the SWMP will be reported.

**Data Collection, Recordkeeping and Reporting:** Comment collection will be conducted during a 30-day public comment window. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term. Applicable information associated with the BMP will be reported in each Annual Report during the permit term.

Legal Authority: 40 CFR 122.34(b)(2)

References: AZPDES Small MS4 General Permit (Section 6.2) AZDEQ.gov

City of Chandler Stormwater Webpage (https://www.chandleraz.gov/residents/water/stormwater

Implementation Status: Current BMP

## **QUICK LINKS**

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## APPENDIX D MCM 3 ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM BMP DETAILS

- MCM 3-1 Storm Sewer System Mapping
- MCM 3.2 Legal Authority Review
- MCM 3-3 Visual Outfall Monitoring (Dry Weather)
- MCM 3-4 Visual Outfall Monitoring (Wet Weather)
- MCM 3-5 Illicit Discharge Response
- MCM 3-6 Staff Training
- MCM 3-7 Illicit Discharge On-line Reporting Form

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#### MCM 3-1 Storm Sewer System Mapping

**Objective:** Maintain an up-to-date map of the MS4 with sufficient scope and detail to identify and isolate illicit discharges and for use as a reference during proactive inspections of the storm sewer system. The map will be representative of the storm sewer system infrastructure and include the following: Locations of discharges to the Waters of the United States; jurisdictional MS4 boundaries; new land annexations during the respective permit year; interconnections with other MS4s including linear drainage structures used for conveyance (Example: streets, channels, floodways, pipes, etc.); storm drain inlet structures (Example: catch basins, scuppers, etc.); outfalls; dry weather field screening (monitoring) locations including unique identifier, receiving water, dimensions, shape, spatial location (latitude/longitude), Physical condition, indicators of potential non-stormwater discharges; detention/retention basins that are part of the MS4.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/ Environmental Services Manager/Environmental Services Senior Technician and/or Development Services/GIS Analyst

**Procedure:** The location of features and their respective attributes will be collected by GIS Technicians using a portable handheld GPS receiver during or following a final inspection (post construction) of public and private developments and Capital Improvement Projects. Additional data collection or revisions of features will take place whenever a feature(s) has been located that was not previously collected or when a feature(s) and/or associated attribute is incorrect or no longer valid (e.g., ownership, feature type, modifications, etc.) Stormwater program staff will notify a GIS Technician via email whenever a discrepancy has been found during proactive inspections.

**Equipment:** Truck, appropriate personal protective equipment and safety equipment appropriate for site conditions and assigned activities, portable handheld GPS receiver, plan sheets, writing utensil.

**Measurable Goal(s):** Features and/or attributes will be collected throughout the permit year as described above. The number of new structures collected and added to the GIS map will be tabulated.

**Data Collection, Recordkeeping and Reporting:** Data collection will be conducted throughout the permit term. Applicable information regarding the number of structures added to the map will be presented as part of the Annual Report. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.

Legal Authority: 40 CFR 122.34(b)(3)

References: AZPDES Small MS4 General Permit (Section 6.3.1) AZDEQ.gov

Implementation Status: Current BMP

## **QUICK LINKS**

<u>Appendix A: Drainage</u> <u>Map</u>

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#### MCM 3-2 Legal Authority Review

**Objective:** Review city's existing stormwater ordinance requirements and update the ordinance as required to ensure that the ordinance complies with the new stormwater general permit.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/ Environmental Services Manager/ Law Department

**Procedure:** In a collaboration effort between the Environmental Management Division and the City of Chandler Law Department assigned staff will perform a legal review of the city's existing stormwater ordinance to ensure compliance with the new stormwater general permit requirements. If an amendment to the city's ordinance is required, the Law Department will prepare the amendment and work with the city council to adopt the revised ordinance requirements.

**Equipment:** City of Chandler City Code of Ordinances, MS4 general permit, writing utensil

**Measurable Goal(s):** Legal Department staff will review ordinance for compliance with the stormwater requirements. A summary of findings and if necessary, a proposed ordinance amendment will be prepared.

**Data Collection, Recordkeeping and Reporting:** As part of the Annual Report, a statement acknowledging that the city code was reviewed or was not reviewed and report will be provided, additional revisions made to Code that provide the necessary legal authority for implementing and enforcing the SWMP and IDDE Program therein will be reported.

Legal Authority: 40 CFR 122.34(b)(3)

References: AZPDES Small MS4 General Permit (Section 3.1 thru 3.3) AZDEQ.gov

Implementation Status: Current BMP

## **QUICK LINKS**

<u>Appendix A: Drainage</u> <u>Map</u>

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### MCM 3-3 Visual Outfall Monitoring (Dry Weather)

**Objective:** To detect and eliminate illicit discharges and connections to the city's MS4, and to identify and characterize discharges from the city's MS4 during periods of dry weather.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/Environmental Services Manager/ Environmental Services Program Coordinator / Environmental Services Senior Technician

**Procedure:** Dry weather monitoring must be conducted at least 72 hours after a storm event that resulted in a discharge from the storm sewer system. Field screening inspections will be completed at each of the locations identified below at a frequency no less than one time per year.

1. Proceed to the locations listed below.

#### **Dry Weather Field Screening locations:**

- SanTan 202 & Stellar PW / Geronimo St (MH-12-45-010) (COC)
- SanTan 202 & Stellar AP Runway / Geronimo St (CB-12-46-005) (COC)
- SanTan 202 & McClintock Rd (MH-12-47-010) (COC)
- SanTan 202 & Kenwood Ln (CB-12-47-005) (COC)
- Price Fwy 101 Frontage Rd & Galveston St Thude Park (Out-10-49-008) (COC)
- Southside of Chandler Blvd. @ Gila Drain and Chandler Blvd. (ST-CB-11-42-001)
- Southside of Gila Drain & Gila Springs Blvd. (ST-SCP-10-43-005)
- 2. Complete general information section including outfall name, date, time, last rain event information, and site description information on the *Dry Weather Field Screening Data Collection Form*.
- 3. Stand at major outfall location. Survey pipe for any dry weather flow. Follow instructions below.

#### If flow is observed:

- 1. Document that a dry weather flow is observed.
- 2. Take a photograph(s) documenting the flow.
- 3. Visually observe the flow. Complete the Visual Observations section by documenting the observed characteristics and conditions listed under the section.
- 4. Investigate the flow upstream to identify the source of the flow.
- 5. Provide comments on any observations, flow characteristics or conditions that may be applicable to require maintenance or potential illicit discharges e.g., irrigation tail water, observed pool drainage, low spot in pipe, etc.
- 6. Sign, date and print name.
- 7. Notify the Environmental Services Program Coordinator as soon as possible, if any observations, flow characteristics or conditions may be a result of a potential illicit discharge.
- 8. All potential illicit discharges or connections must be investigated and eliminated as soon as possible and in accordance with the city's Illicit Discharge Detection and Elimination Program (IDDE).

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9. Attach the corresponding photo(s) to the completed *Dry Weather Field Screening Data Collection Form.* 

#### If flow is not observed:

- 1. Document that a dry weather flow was not observed.
- 2. Take a photograph(s) documenting the absence of flow.
- 3. Complete the Visual Observations section by documenting the observed characteristics and conditions listed under the section.
- 4. Provide comments on any observations or characteristics that may be applicable to required maintenance or evidence of a recent, potential illicit discharge.
- 5. Sign, date and print name.
- 6. Attach the corresponding photo(s) to the completed *Dry Weather Field Screening Data Collection Form.*

**Equipment:** Truck, personal protective equipment and safety equipment appropriate for site conditions and assigned activities, *Dry Weather Field Screening Data Collection Form,* camera, clipboard, paper, writing utensil, inspection mirror, flashlight or spotlight, tape measure, hand tools (manhole hook, large, slotted screwdriver, sledgehammer, etc.), distance wheel, outreach and/or reference materials such as brochures.

**Measurable Goal(s):** Copies of completed *Dry Weather Field Screening Data Collection Forms* will be saved electronically on the shared drive and attached to the corresponding Lucity work order. The number of inspections will be tabulated and reported within the Annual Report.

**Data Collection, Recordkeeping and Reporting:** Data collection will be conducted throughout the permit term. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term. Applicable information associated with the BMP will be reported in each Annual Report during the permit term.

Legal Authority: 40 CFR 122.34(b)(3)

City code chapter 45-8, etc.

References: AZPDES Small MS4 General Permit (Section 6.3.7) AZDEQ.gov

Implementation Status: Current BMP

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#### MCM 3-4 Visual Outfall Monitoring (Wet Weather)

**Objective:** Monitor stormwater discharges at MS4 outfalls and identified screening points during a qualified storm event (i.e., a storm event that produces 0.1 inches of rain or more, resulting in a discharge at the outfall/screening point). To the extent practicable the stormwater sample should include the first flush discharge. The sample will be collected annually. Follow up monitoring efforts will be as necessary to identify and cease illicit discharges at the outfall/screening point.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/ Environmental Services Program Coordinator/ Environmental Services Senior Technician

**Procedure:** Assigned staff will conduct visual observations at the seven (7) identified outfall/screen points a minimum of once a year. During the observations staff will note any physical and visual observations applicable to each of the monitoring locations.

- \* A minimum of two staff members will conduct monitoring activities at the outfall locations whenever possible.
- \*\* Staff members assigned to conduct monitoring activities must be aware of their surroundings at all times and cease monitoring activities whenever site conditions are determined to be unsafe or hazardous in nature.
  - 1. Proceed to each of the locations listed below.

#### Visual Stormwater Discharge Monitoring locations:

- SanTan 202 & Stellar PW / Geronimo St (MH-12-45-010) (COC)
- SanTan 202 & Stellar AP Runway / Geronimo St (CB-12-46-005) (COC)
- SanTan 202 & McClintock Rd (MH-12-47-010) (COC)
- SanTan 202 & Kenwood Ln (CB-12-47-005) (COC)
- Price Fwy 101 Frontage Rd & Galveston St Thude Park (Out-10-49-008) (COC)
- Southside of Chandler Blvd. @ Gila Drain and Chandler Blvd. (ST-CB-11-42-001)
- Southside of Gila Drain & Gila Springs Blvd. (ST-SCP-10-43-005)
- 2. A Visual Stormwater Discharge Monitoring Data Collection Form will be completed for any visual monitoring that occurred at any of the seven (7) monitoring locations detailed above.

#### At the outfall,

- 3. Take a photograph(s) documenting the structure and flow.
- 4. Use collection equipment (e.g., a pole mounted dipper/ladle) to capture a sample.
- 5. Provide comments on the following observations, which may indicate a potential illicit discharge or indicate a location that requires a pollution prevention BMP.
  - color odor
  - clarity debris
  - floatables
     sheen



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- Complete the Visual Stormwater Discharge Monitoring Data Collection Form by documenting the observed flow characteristics/flow rate, time, date, and weather conditions at the time of the inspection. Note that until a local rain gage has been installed (Future BMP 3.8), precipitation data can be obtained from the FCDMC Rainfall webpage at <u>Maricopa.gov\_Rainfall-Data</u>.
- 7. Sign, date and print name.
- 8. Attach the corresponding photo(s) to the completed *Visual Stormwater Discharge Monitoring Data Collection Form.*

**Equipment:** Truck, personal protective equipment and safety equipment appropriate for site conditions and assigned activities, pole mounted dipper/ladle, camera, *Visual Stormwater Discharge Monitoring Data Collection Form*, clipboard, paper, writing utensil, inspection mirror, flashlight, spotlight, hand tools (manhole hook, large, slotted screwdriver, wrenches, sledgehammer, etc.)

**Measurable Goal(s):** The number of inspections and findings will be tabulated and reported within the Annual Report.

**Data Collection, Recordkeeping and Reporting:** Data collection will be conducted throughout the permit term. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term. Applicable information associated with the BMP will be reported in each Annual Report during the permit term.

Legal Authority: 40 CFR 122.34(b)(3)

City code chapter 45-8, etc.

References: AZPDES Small MS4 General Permit (Section 6.3) AZDEQ.gov

Implementation Status: Current BMP

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#### MCM 3-5 Illicit Discharge Response

**Objective:** To detect and eliminate illicit discharges and connections to the city's MS4.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/ Environmental Services Manager and Potentially the City of Chandler Legal Department

**Procedure:** Illicit discharges may be identified through observations associated with dry weather field screening activities, field observations, and routine inspections of MS4 components or complaints received from city staff, residents or others. Discharges can be detected through active dry weather flows, staining, deposits, oily sheen, foam, discoloration, algae, odor, vegetation growth, etc. Such characteristics may be observed along gutters, on paved areas, at or near inlet openings, at or near outfalls, on bottoms of pipes or open ditches. The frequency of an illicit discharge may be continuous, intermittent or transitory. An illicit discharge can be a direct entry, where the discharge is directly connected into the inlet or associated pipe or an indirect entry, in which the discharge is generated outside of the storm drain system but travels along an impervious surface into the storm drainage system or deposited onto an impervious surface.

Once an illicit discharge has been identified or Environmental Services Division has been notified of such a discharge, an investigation will commence as soon as possible. Assigned staff will respond by following the steps below;

- 1. Locate the reported discharge or evidence of a recent discharge.
- 2. Determine if the discharge is prohibited by city code chapter 45-8. If so, move on to step #3. If the discharge is not prohibited by city code, then proceed by speaking with the responsible party and providing them with information on how to minimize pollutants that may enter into the MS4.
- 3. Begin tracking the discharge or evidence of a recent discharge by inspecting upstream sources, including streets, gutters, catch basins, laterals, mains, manholes, etc., if necessary. Document evidence of a discharge through photographs, video, written notes, etc. Follow the source to determine the point and source of discharge. (City staff shall not enter confined spaces or have direct contact with the discharge(s)).
- 4. Utilize As-Built and/or GIS data to assist in the tracking process., if necessary.
- 5. Conduct video inspection of storm drainage system components if the source of the discharge cannot be identified.
- 6. Contact the responsible party (applicable owner/operator, resident, business or other entity) upon determination of the source.
- 7. Introduce yourself as a city employee and have city identification properly displayed.
- 8. Explain to the owner/operator, resident, business or other entity (responsible party) that the observed discharge is prohibited by city code and that the discharge must be ceased immediately. Issue a Notice to Comply form if applicable.

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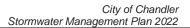
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- 9. Request that the responsible party properly clean-up discharged materials (sediment, diatomaceous earth, motor oil, etc.) and note such information on the Notice to Comply form and provide a deadline for the clean-up efforts and notify the responsible party that a re-inspection will occur.
- 10. Provide applicable reference materials including, but not limited to a stormwater pollution prevention brochure, pool drainage brochure, copy of City code, etc.
- 11. Ensure a record of the discharge including the source, location, type of discharge, disposition, photographic evidence, verbal instructions and/or dialogue with the responsible party etc., is documented in the Lucity database.
- 12. Conduct a re-inspection of the location within three (3) business days of previous inspection, if necessary.

**Equipment:** Truck, cell phone, personal protective equipment and safety equipment appropriate for site conditions and assigned activities, *Dry Weather Field Screening Data Collection Form,* camera, clipboard, paper, writing utensil, inspection mirror, flashlight or spotlight, tape measure, hand tools (manhole hook, large-slotted screwdriver, sledgehammer, etc.), distance wheel, outreach and/or reference materials such as door hangars, brochures, City code chapter 45-8, etc.

**Measurable Goal(s):** Illicit discharges will be responded to as soon as practicable. The majority of responses will occur on the same day as reported, if possible. The number of calls associated with the response of an illicit discharge will be tabulated and reported within the Annual Report. The results of the investigation into the discharge will be documented. Any formal enforcement action will be documented. The final remediation solution will be documented.

**Data Collection, Recordkeeping and Reporting:** Data collection will be conducted throughout the permit term. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term. Applicable information associated with the BMP will be reported in each Annual Report during the permit term.

#### Legal Authority:

City of Chandler Manual on Stormwater Quality Protection City of Chandler Engineering and Design Standards Manual City of Chandler City Code Section 45-8.

References: AZPDES Small MS4 General Permit (Section 6.3) AZDEQ.gov

Implementation Status: Current BMP

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#### MCM 3-6 Staff Training

**Objective:** To provide training for city staff on the illicit discharge detection and elimination program.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/ Environmental Services Manager/Environmental Services Program Coordinator /Environmental Services Senior Technician

**Procedure:** Training topics or content may include, but is not limited to, the identification of potential illicit discharges and the response to calls pertaining to illicit discharges and who to contact with questions, observations and/or concerns, and how to approach and deal with the source of the discharge.

The delivery method of training may include, but is not limited to, a classroom setting, via the city's learning management system (LEAF), in the field, on the jobsite or at meetings. Training content may include video, PowerPoint presentations, verbal communication and/or handouts relevant to applicable job duties or activities.

Training activities will occur throughout each year of the permit term. The frequency and number of training sessions may vary each year based on employee availability and other assigned duties. A training roster form will be prepared, and all training participants will be asked to fill out and sign the form. The training roster form may include the following information: Date, time, Department, Division, employee number, signature, a brief description of training content and the trainer(s) administering the session.

**Equipment:** Smartboard, projection screen, projector, dry erase board, dry erase markers, desktop or laptop computer, flash drive, DVD player, DVD, CD, laser pointer, speaker system, writing utensil, training roster form.

**Measurable Goal(s)** The training of staff will occur throughout each year of the permit term. The number of staff trained will be tabulated and reported within the Annual Report.

**Data Collection, Recordkeeping and Reporting:** Data collection will be conducted throughout the permit term. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term. Applicable information associated with the BMP will be reported in each Annual Report during the permit term.

Legal Authority: N/A

References: AZPDES Small MS4 General Permit (Section 6.3)

Implementation Status: Current BMP

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#### MCM 3-7 Illicit Discharge On-line Reporting Form

**Objective:** Develop and maintain an on-line form that allows for the reporting of potential illicit discharges or stormwater violation for the purpose of eliminating illicit discharges into the MS4.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/ Environmental Services Manager/ Environmental Services Manager/Environmental Services Program Coordinator

Updates to the website will be conducted by the Communications and Public Affairs Department (CAPA)/Digital Content Strategist.

**Procedure:** Assigned staff will develop an on-line form that will allow for the reporting of the illicit discharges or stormwater violations. Data included on the form will include the site location, summary of what was observed, date and time of observation and the optional addition of contact information for further follow up (name, email, phone number). The form will also contain a means to upload photos (jpg, png, tiff or video mpg, mov, gif). The information will be connected to the Lucity data base for review such that a work order or work request can be initiated. The form will be created as part of a cooperative effort between the Environmental Management Division and the city's Digital Content Strategist. Once created the form will be reviewed annually and updated as required.

Equipment: Internet Service Provider/Webhosting Platform

**Measurable Goal(s):** The on-line form will be reviewed a minimum of one time per year to ensure that content is still relevant, and the form is functioning as intended. The number of submissions from the on-line form will be tracked. The number of work requests/work orders/inspections generated from the submissions will be tracked.

**Data Collection, Recordkeeping and Reporting:** The data collection regarding the usage and effectiveness of the on-line form will be maintained for a minimum of three (3) years following the end of the permit term. The number of complaints submitted to the portal and the number of action items stemming from the complaints will be reported in each Annual Report.

Legal Authority: N/A

References: AZPDES Small MS4 General Permit (Section 6.3) AZDEQ.gov

City of Chandler Stormwater Program Website: https://www.chandleraz.gov/residents/water/stormwater

Implementation Status: Future BMP; Start Date 03/2023

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## APPENDIX E MCM 4 CONSTRUCTION ACTIVITY STORMWATER RUNOFF CONTROL BMP DETAILS

- MCM 4-1 Site Plan Reviews
- MCM 4-2 Erosion and Sediment Control Plan
- MCM 4-3 Construction Site Inspections
- MCM 4-4 Education Materials
- MCM 4-5 Stormwater Webpage



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#### MCM 4-1 Site Plan Review

**Objective:** Review civil site plan submittals to ensure compliance with City design standards and requirements.

**Department/Division/Staff:** Development Services/Development Engineering Division Engineering/Civil Plan Review Manager and/or Senior Civil Plans Examiner and/or Civil Plans Examiner Principal

**Procedure:** Assigned staff will perform a technical evaluation and review of building and site plans and design and construction documents to ensure compliance with city development ordinances and International Construction Codes, including but not limited to, architectural, structural, electrical, plumbing, mechanical, fire safety, health, and other applicable codes.

Equipment: Desktop computer, plan sheets, writing utensil.

**Measurable Goal(s):** Assigned staff will review civil plans for all permitted projects. The number of site/development plan reviews will be tracked.

**Data Collection, Recordkeeping and Reporting:** Data collection will be conducted throughout the permit term. The records listing the number of reviews conducted during a given year will be maintained for a minimum of three (3) years following the end of the permit term. The number of site/development plan reviews will be reported in each Annual Report during the permit term.

Legal Authority: 40 CFR 122.34(b)(4)(i)(D)

References: City of Chandler Engineering & Design Standards Manual

Chandler Code of Ordinances

Implementation Status: Current BMP

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#### MCM 4-2 Erosion and Sediment Control Plan

**Objective:** Require the submittal of an Erosion and Sediment Control Plan for development projects that exceed one acre or greater in disturbed area.

**Department/Division/Staff:** Development Services/Development Engineering Division Engineering/Plan Review Manager and/or Principal Plans Examiner and/or Sr. Plans Examiner and/or Plans Examiner

**Procedure:** Review Erosion and Sediment Control Plans that have been submitted to the city with other civil plans associated with site work applicable to grading and drainage permitting.

Equipment: N/A

**Measurable Goal(s):** Erosion and Sediment Control Plans will be reviewed throughout the permit term. The number of plan reviews will be tracked.

**Data Collection, Recordkeeping and Reporting:** Data collection will be conducted throughout the permit term. The records listing the number of reviews conducted during a given year will be maintained for a minimum of three (3) years following the end of the permit term. The number or erosion control plan reviews conducted during the year will be reported in each Annual Report during the permit term.

Legal Authority: 40 CFR 122.34(b)(4)(i)(D)

References: AZPDES Small MS4 General Permit (Section 6.4.3.8h) AZDEQ.gov

Implementation Status: Current BMP

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#### MCM 4-3 Construction Inspections

**Objective:** Develop, implement, and enforce a program to reduce pollutants in stormwater runoff to the city's MS4 from construction activities.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/ Environmental Services Manager/ Environmental Services Program Coordinator

**Procedure:** Construction activities that result in land disturbance of one acre or greater or sites that disturb less than one acre if part of a larger common plan of development will be subject to inspection.

**Types of inspections:** pre-construction meeting; routine; complaint received by the public or City staff; field observation; follow-up; or post storm event.

**Method of determining locations of sites to be inspected:** The Arizona Department of Environmental Quality NOI Construction Stormwater General Permit Database and/or Development Project Administrator (DPA) Log and/or Inspector Projects Assignment Log and/or Public Construction Activity Log (CIP) and/or Construction or building permit database or observation of active construction activity, notification of active construction by the public or City staff, notice by City staff of a scheduled pre-construction meeting, complaint received by the public or City staff and/or knowledge of locations that have already been inspected.

**Frequency of Inspection**: Sites will be inspected upon observation or notification of a site's location. The anticipated frequency of inspections is based on the size (acres) of the project as follows:

GOAL FOR PRIVATE DEVELOPMENT PROJECTS AND CAPITAL IMPROVEMENT PROJECTS (CIP):

For sites disturbing 1 acre or more and within 1/4 mile of an impaired, not attaining, or protected surface water

Weekly and, within 24 hours of a storm event having a precipitation amount of 0.5 inches in a 24-hour period.

For sites not meeting the above

- > Within 1 month of the start of construction
- > and quarterly thereafter
- and upon completion of construction prior to final approval or occupancy

For sites not meeting the below five requirements may reduce inspection frequency to every six months

- > The nearest downstream receiving water is ephemeral.
- The construction activity occurs on a site designed so that all stormwater generated by disturbed areas of the site exclusive of public rights-of-way is directed to one or more retention basins that are designed to retain the runoff from an extreme event. For the purposes of this subsection, "extreme event" means a rainfall event that meets or exceeds the local one hundred-year, two-hour storm

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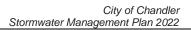
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event as calculated by an Arizona registered professional engineer using industry practices.

- The owner or operator complies with erosion and sediment control measures.
- > The owner or operator maintains the capacity of the retention basins.
- Construction conforms to the standards prescribed to section 6.4.2.f.2.

The number of site inspections for private developments or CIP may vary depending on staffing, the phase of construction, compliance status, site location, field observations, complaints and/or concerns received by the public or City staff, greater potential for discharge to the MS4, or following significant rain events.

#### Inspection procedure for on-site inspections:

- 1. Introduce yourself as a City of Chandler employee and have City identification properly displayed. Begin the inspection and complete sections of the *Stormwater Site Inspection Report Form using GIS Survey 123*.
- 2. Conduct visual inspection of perimeter areas and identify the potential of or evidence of off-site discharges. Look for required AZCON # or NOI Certificate posting and observe implemented perimeter control best management practices for proper installation and maintenance. Complete General Information and Administrative Requirements sections of the *Stormwater Site Inspection Report* form. If at the completion of the inspection no AZCON#, NOI or Construction General Permit is not observed, found or provided by the facility, the city will communicate the site location, contractor, and contact information to ADEQ for follow-up.
- 3. Proceed to on-site construction office or notify the contact person listed on the posted NOI Certificate or the Maricopa County Dust Control signage or contact them via telephone. Inquire on-site about the location of or contact information for a Site Superintendent, Project Manager or other authorized site representative if necessary. Once such contact has been made, inform the site representative of your name, that you are an employee of the City of Chandler and that you are there to conduct a stormwater site inspection.
- 4. Ask the site representative if they wish to accompany you on the inspection or if you may proceed without them.
- 5. Proceed with the inspection and complete the Erosion and Sediment Controls and Housekeeping and Pollution Prevention sections of the inspection report form as you observe each of the applicable items listed therein.
- Following the inspection, complete the Inspection report on GIS Survey 123. Note any comments and/or corrective actions necessary as it pertains to observations, site conditions, specific actions that require attention, etc.
- 7. Meet with the site representative to go over each section of the inspection report. Clearly explain the outcome of the inspection and any corrective actions that require attention. If corrective actions are noted, complete the "Follow-up inspection to be conducted on:" section by inserting a date that should be no more than 10 days from the date of inspection or before the next rain event if practicable. (Note: in most cases, follow-up inspections will be scheduled within seven (7) days from the date of the initial inspection provided that the inspectors schedule permits). The inspector will note on the



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inspection report form if a brochure, copy of applicable City code, etc. has been provided to the site representative at the time of inspection. Complete the inspection report form by signing your name and noting the date and time. The on-site representative will then be provided with the inspection report via email.

- 8. A follow-up inspection will be required if any corrective actions were noted. The inspector will submit an inspection report form to document the status of the re-inspection(s) and completion of corrective actions. The on-site representative will be advised when corrective actions have been inspected and approved.
- 9. Enforcement: Failure to address corrective actions documented during an inspection may result in an enforcement action including, but not limited to Chandler City Code provisions.

#### Inspection procedures for off-site inspections:

1. Off-site inspections may be conducted due to the following conditions: The site has previously been inspected and determined to be in significant compliance and, site is temporarily inactive, restricted access, the Superintendent, Supervisor or authorized site representative is not present, or during an active storm event or following a storm event. A Stormwater Site Inspection Report Form will be completed to the extent practicable at the time of the off-site inspection. The inspection process will generally incorporate off-site observations associated with BMPs, including but not limited to; track out control device, posting of AZCON #, and NOI, perimeter controls, observed discharges to the MS4 and/or potential of off-site discharges to the MS4. A copy of the inspection report will only be provided to a representative of the General Contractor associated with the site if corrective actions have been noted. The inspection report will be provided via email. If at the completion of the inspection no AZCON#, NOI or Construction General Permit is observed, found or provided by the facility, the city will communicate the site location, contractor, and contact information to ADEQ for follow-up.

**Equipment:** Truck, personal protective equipment and safety equipment appropriate for site conditions and assigned activities, *Stormwater Construction Site Inspection Forms,* camera, clipboard, paper, writing utensil, inspection mirror, flashlight or spotlight, tape measure, hand tools (manhole hook, large, slotted screwdriver, sledgehammer, etc.), distance wheel, outreach and/or reference materials such as construction brochure, City code chapter 45-8.

**Measurable Goal(s):** Completed *Stormwater Site Inspection Reports* and other applicable information will be kept in Environmental Management. Following the inspection, the inventory will be revised to reflect the inspection. The number of inspections will be tabulated and reported within the Annual Report.

**Data Collection, Recordkeeping and Reporting:** Data collection will be conducted throughout the permit term. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term. Applicable information associated with the BMP will be reported in each Annual Report during the permit term.

#### Legal Authority:

City of Chandler Ordinance # 5087



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City of Chandler Manual on Stormwater Quality Protection City of Chandler City Code Section 45-7 **References:** AZPDES Small MS4 General Permit (Section 6.4 a thru g) <u>AZDEQ.gov</u> ADEQ NOI Database: <u>https://my.azdeq.gov/deq-search/cgp/search-criteria</u> ADEQ Construction General Permit: <u>https://azdeq.gov/AZPDES/CGP</u> <u>City of Chandler</u> or <u>STORM Construction Brochure</u>

Implementation Status: Current BMP

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#### MCM 4-4 Educational Materials for Construction Activity Stormwater Runoff Control

**Objective:** Develop and distribute a brochure or other educational material(s) that provides information applicable to construction activity with the goal of increasing knowledge of construction site operators so that pollutants in stormwater are reduced.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/ Environmental Services Manager / Environmental Programs Coordinator / Environmental Services Senior Technician

**Procedure:** Assigned staff will develop and distribute brochures or educational materials to construction site operators while participating in pre-construction meetings and/or during site inspections. The brochures may include, but not be limited to, information on the ADEQ Construction General Permit, administrative requirements, and the implementation and maintenance of best management practices. The brochures may also include checklists that can be used for SWPPP preparation.

Equipment: Brochures

**Measurable Goal(s):** The number of brochures distributed will be documented and their respective distribution will be quantified to establish an approximate numerical value. The Construction Site Inspection spreadsheet will include a column reflecting distribution of a brochure(s) to the specific site. The spreadsheet will cover each permit year of the permit term.

**Data Collection, Recordkeeping and Reporting:** Data collection will be conducted throughout the permit term. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term. Applicable information associated with the BMP will be reported in each Annual Report during the permit term.

Legal Authority: N/A

References: AZPDES Small MS4 General Permit (Section 6.4.4.4) <u>AZDEQ.gov</u>

Implementation Status: Current BPM

## **QUICK LINKS**

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#### MCM 4-5 Stormwater Webpage

**Objective:** Develop and maintain a city website that conveys pertinent information regarding the city's SWMP with the goal of increasing knowledge and changing the behavior of the contractors, developers and builders operating within the city limits so that pollutants in stormwater are reduced.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/Environmental Services Manager/Environmental Services Manager/Environmental Services Program Coordinator

Updates to the website will be conducted by the Communications and Public Affairs Department (CAPA)/Digital Content Strategist.

**Procedure:** Assigned staff will periodically review the web-content to ensure that the subject matter and links to resources are still relevant and accurate. Updates to the website will occur when content is no longer applicable to the program or whenever new content, or educational materials are available. Content may include but is not limited to general information, potential stormwater pollutants and sources, the SWMP, City Code, FAQ's, contact information for questions or to report discharges into the MS4, educational materials, brochures, current and prior Annual Reports and links to stormwater related resources relevant to the general public, Homeowner's Associations, the construction industry, industrial facilities, etc. The review will also verify that the links on the webpage are reflected in the SWMP and the distributed materials from MCM 1-1.

Assigned staff from the Environmental Management Division will provide the city's Digital Content Strategist with necessary revisions.

Equipment: Internet Service Provider/Webhosting Platform

**Measurable Goal(s):** The website will be reviewed a minimum of one time per year to ensure that content is still relevant. Additional reviews may occur whenever new content is added. The number of visits, page views and material downloaded will be tracked.

**Data Collection, Recordkeeping and Reporting:** Data collection will be conducted throughout the permit term. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term. The number of visits, page views and material downloaded will be reported in each Annual Report during the permit term.

**Legal Authority:** 40 CFR 122.34(b)(2)

References: AZPDES Small MS4 General Permit (Section 6.2) AZDEQ.gov

City of Chandler Stormwater Program Website: https://www.chandleraz.gov/residents/water/stormwater

Implementation Status: Current BMP

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## APPENDIX F MCM 5 POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT BMP DETAILS

- MCM 5-1 Inspections
- MCM 5-2 Education Materials (Type 1)
- MCM 5-2 Education Materials (Type 2)
- MCM 5-3 Inventory
- MCM 5-4 Site Plan Reviews

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#### MCM 5-1 Inspections

**Objective:** Develop, implement, and enforce a final, and post-construction inspection program to reduce pollutants in stormwater runoff to the MS4 from new development and redevelopment projects and to provide for proper function of private and public stormwater drainage/collection facilities and stormwater system components.

**Department/Division/Staff:** Management Services Department – Environmental Management Division / Environmental Services Manager / Environmental Programs Coordinator

**Procedure:** Capital improvement projects and private development sites that have submitted plans for new development or redevelopment that result in land disturbance of one acre or greater or sites that disturb less than one acre if part of a larger common plan of development will be subject to a post construction inspection(s), including, but not limited to, an initial final inspection immediately following completion of construction activities and necessary for certificate of occupancy and a final warranty inspection to be conducted approximately one year from the date of the initial final inspection. Sites may be inspected beyond the date of the final warranty inspection and/or maintenance of stormwater drainage/collection facilities and/or stormwater system components are determined to be ineffective.

Types of inspections: initial final or complaint received by the public or city staff; field observation; or post storm event.

Method of determining locations of sites to be inspected: invitation or notification of initial final or final warranty inspections by city staff; complaint received by the public or city staff; knowledge of locations that have already been inspected; field observation; or post storm event.

Frequency of Inspection: The frequency of inspections for a particular site will vary depending on site location, field observations, complaints and/or concerns received by the public or city staff, greater potential for discharge to the MS4, or following significant storm events.

#### Inspection procedure:

- 1. Conduct visual inspection of perimeter areas and identify the potential of or evidence of off-site discharges.
- 2. Observe all stormwater drainage/collection facilities and stormwater system components, including but not limited to retention areas, non-retention permeable areas, conveyance structures, drywells, scuppers, spillways, catch basins, underground retention tanks, velocity dissipation devices, headwalls, and associated structures for proper construction, connection and maintenance per City of Chandler and Maricopa Association of Governments (MAG) standard details and specifications.
- 3. Drainage/collection facilities and stormwater system components shall provide for safe and efficient drainage, conveyance, percolation and disposal of stormwater per City of Chandler Engineering & Design Standards Manual Chapter 3.

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- 4. All retention and non-retention permeable areas shall be adequately stabilized to prevent erosion and subsequent sediment deposition.
- 5. Punch lists shall be completed and forwarded to the Construction Management representative e.g., Development Project Administrator, Public Works Inspector, as soon as possible following the inspection. Punch lists shall document all observed defects or discrepancies in construction, stabilization, connectivity and effectiveness. Punch lists will be completed for initial and final warranty inspections.
- 6. Issues observed to be associated with defects in construction, stabilization, connectivity and/or effectiveness of private or public stormwater drainage/collection facilities and/or stormwater system components beyond the final warranty inspection period will be documented and/or brought to the attention of the Environmental Services Program Coordinator for follow up. Efforts should be made to further investigate the defect(s), and determine a course of action, along with notification of the private or public property owner or the Engineer on record responsible for the referenced defects.

#### Enforcement:

Failure to reasonably address defects in construction, stabilization, connectivity and/or effectiveness upon notification may result in an enforcement action including, but not limited to Chandler City Code provisions.

**Equipment:** Truck, personal protective equipment and safety equipment appropriate for site conditions and assigned activities, camera, clipboard, paper, writing utensil, inspection mirror, flashlight, spotlight or headlamp, tape measure, hand tools (manhole hook, large, slotted screwdriver, sledgehammer, etc.), distance wheel.

**Measurable Goal(s):** The number of initial and final warranty inspections will be tabulated.

**Data Collection, Recordkeeping and Reporting:** Data collection will be conducted throughout the permit term. The records of the number of initial and final warranty inspections will be maintained for a minimum of three (3) years following the end of the permit term. The number of inspections completed will be reported in each Annual Report during the permit term.

**Legal Authority:** Drainage Policies and Standards: Engineering & Design Standards Manual

References: AZPDES Small MS4 General Permit (Section 6.5) AZDEQ.gov

<u>City of Chandler Drainage Policies and Standards (chandleraz.gov)</u> <u>Unified Development Manual (UDM) | City of Chandler</u> <u>(chandleraz.gov)</u>

Implementation Status: Current BMP

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# MCM 5-2 Educational Materials (Type 1 – Property Owner's Manual for Stormwater Management)

**Objective:** Develop, maintain and distribute the City of Chandler *Property Owner's Manual for Stormwater Management.* 

**Department/Division/Staff:** Management Services Department – Environmental Management Division / Environmental Services Manager / Environmental Services Program Coordinator

**Procedure:** Assigned staff will periodically review and/or revise and distribute the *Property Owner's Manual for Stormwater Management* to Homeowner's Association's, Board Member's and Property Manager's on request to assist them in properly budgeting and maintaining privately owned stormwater drainage system structures.

Equipment: N/A

**Measurable Goal(s):** The *Property Owner's Manual for Stormwater Management* will be distributed upon request throughout the year. The number of materials distributed will be tracked.

**Data Collection, Recordkeeping and Reporting:** Distribution of the education materials will occur throughout the year. The records documenting the number of educational materials distributed will be maintained for a minimum of three (3) years following the end of the permit term. The type and number of materials distributed during the year will be reported in each Annual Report during the permit term.

Legal Authority: N/A

References: AZPDES Small MS4 General Permit (Section 6.5) AZDEQ.gov

<u>City of Chandler Drainage Policies and Standards (chandleraz.gov)</u> <u>Unified Development Manual (UDM) | City of Chandler</u> (chandleraz.gov)

Implementation Status: Current BMP

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# MCM 5-2 Educational Materials (Type 2 – Stormwater Brochure and Fact Sheet)

**Objective:** Develop and distribute a fact sheet for developers, homeowner's associations, property managers and maintenance professionals that assist's with reducing pollutants from new developments and redevelopment to the MS4.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/Environmental Services Manager/Environmental Services Program Coordinator

**Procedure:** Assigned staff will create a fact sheet that will be made available for distribution. At a minimum, the fact sheet will include the following information: storm drainage system structures, operations and maintenance, outreach, applicable City code, and resources.

Equipment: N/A

**Measurable Goal(s):** A copy of the fact sheet will be included on the stormwater program website and will be distributed as needed. The number of materials distributed will be tracked.

**Data Collection, Recordkeeping and Reporting:** Distribution of the education materials will occur throughout the year. The records documenting the number of educational materials distributed will be maintained for a minimum of three (3) years following the end of the permit term. The type and number of materials distributed during the year will be reported in each Annual Report during the permit term.

Legal Authority: N/A

References: AZPDES Small MS4 General Permit (Section 6.4.5.4) AZDEQ.gov

Implementation Status: Future BMP

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#### MCM 5-3 Inventory

**Objective:** Prepare and maintain up-to-date inventory of post-construction structural control measures.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/Environmental Services Manager/Environmental Services Program Coordinator/Development Services/GIS/GIS Technicians

**Procedure:** The city will maintain an inventory of post-construction structural control measures in the GIS system. Structures will be added into Chandler's existing system following final inspections and submittal of As-Built information has been confirmed. Additional features may be added and/or revised when necessary.

Equipment: N/A

**Measurable Goal(s):** The map will be updated when the construction of new control measures is complete or in the case where an existing facility was not previously identified. The number of completed projects will be tracked.

**Data Collection, Recordkeeping and Reporting:** Data collection will be tracked throughout the permit term. The records documenting the number of new completed projects maintained for a minimum of three (3) years following the end of the permit term. The number of projects completed during the year will be reported in each Annual Report during the permit term.

Legal Authority: N/A

References: AZPDES Small MS4 General Permit (Section 6.5) AZDEQ.gov

Implementation Status: Current BMP

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#### MCM 5-4 Site Plan Reviews

**Objective:** As part of the civil plan approval process, the city will review civil site plan submittals to evaluate post-construction stormwater controls.

**Department/Division/Staff:** Development Services/Development Engineering Division Engineering/Civil Plan Review Manager and/or Senior Civil Plans Examiner and/or Civil Plans Examiner Principal

**Procedure:** Assigned staff will perform a technical evaluation and review of building and site plans and design and construction documents to ensure compliance with City development ordinances and to evaluate the post-construction stormwater controls.

Equipment: Desktop computer, plan sheets, writing utensil

**Measurable Goal(s):** Assigned staff will review civil site plans for all permitted projects. The number of site plans reviewed for post-construction best management practices will be tracked.

**Data Collection, Recordkeeping and Reporting:** The number of site plan reviews will be conducted throughout the permit term. Records documenting the number of reviews will be maintained for a minimum of three (3) years following the end of the permit term. The number of reviews will be reported in each Annual Report during the permit term.

Legal Authority: N/A

References: AZPDES Small MS4 General Permit (Section 6.5) AZDEQ.gov

Implementation Status: Current BMP

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## APPENDIX G MCM 6 POLLUTION PREVENTION/GOOD Housekeeping for municipal operations BMP Details

- MCM 6-1a Inventory of Municipal Operations
- MCM 6-1b Prioritization of Municipal Operations
- MCM 6-2 Provide Recycling and Household Hazardous and Non-Hazardous Waste Collection
- MCM 6-3 Implement Controls at Armstrong Yard and Recycling, Solid Waste Collection Center
- MCM 6-4 Implement Spill Prevention Controls and Counter measures Armstrong Yard
- MCM 6-5 Implement Spill Prevention Controls and Countermeasures Recycling, Solid Waste Collection Center
- MCM 6-6 Inspection and Maintenance Procedures Armstrong Yard
- MCM 6-7 Inspection and Maintenance Procedures Recycling, Solid Waste Collection Center
- MCM 6-8 Street Sweeping

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- MCM 6-9 Good Housekeeping Operations and Inspections (Other Facilities)
- MCM 6-10 Operation and Maintenance of Stormwater Sewer System
- MCM 6-11 Staff Training

Inventory of Prioritized Sites

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#### MCM 6-1a Inventory of Municipal Operations

**Objective:** Conduct an inventory of municipal facilities that may have the potential to discharge pollutants to the MS4.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/Environmental Services Manager/Environmental Services Program Coordinator and Development Services/GIS Analyst

**Procedure:** Assigned staff will develop and maintain a map and/or a list of all municipal facilities that can be utilized for conducting site inspections. Facilities may include, but are not limited to City Hall, police and fire stations, municipal pools, parking garages, city yards, well sites, airport, water and wastewater treatment facilities, fleet repair, etc. The updated inventory list can be found after the MCM descriptions in this section.

Equipment: Desktop or laptop computer, GIS

**Measurable Goal(s):** The map and/or list will be updated to reflect new municipal facilities constructed during the year, any existing facility was not previously identified or when site prioritization has been revised.

**Data Collection, Recordkeeping and Reporting:** A list containing the name and priority status of the municipal facilities will be maintained throughout the permit term. The facility list will be kept for a minimum of three (3) years following the end of the permit term. The first permit year, the list of facilities, their location and their prioritization rank will be provided as part of the Annual Report. In subsequent years, the name, location, and prioritization rank of new facilities will be reported in each Annual Report during the permit term.

Legal Authority: N/A

References:N/A

Implementation Status: Current BMP

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#### MCM 6-1b Prioritization of Municipal Operations

**Objective:** Prioritize the municipal facilities inventory, ranking them from lowest to highest risk in terms of the potential for the discharge of pollutants to the MS4.

**Department/Division/Staff:** Environmental Management Division/Environmental Services Manager/ Environmental Services Program Coordinator / Environmental Programs Technician

**Procedure:** Assigned staff will review the inspection records for municipal facilities and assign a priority ranking based upon the facility condition and usage. Facilities may include, but are not limited to City Hall, police and fire stations, municipal pools, parking garages, city yards, well sites, airport, water and wastewater treatment facilities, fleet repair, etc. The updated inventory list can be found after the MCM descriptions in this section.

Equipment: Desktop or laptop computer, GIS

**Measurable Goal(s):** The prioritization will be assigned or updated when facility inspections occur.

**Data Collection, Recordkeeping and Reporting:** A list containing the name and priority status of the municipal facilities will be maintained throughout the permit term. The facility list will be kept for a minimum of three (3) years following the end of the permit term. The first permit year, the list of facilities, their location and their prioritization rank will be provided as part of the Annual Report. In subsequent years, the name, location, and prioritization rank of new facilities will be reported in each Annual Report during the permit term.

Legal Authority: N/A

References:N/A

Implementation Status: Future BMP; Start Date 01/2023

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#### MCM 6-2 Provide Recycling and Household Hazardous and Non-Hazard Waste Collection Services

**Objective:** Provide residents with the service of collecting recyclable materials and hazardous and non-hazard waste by providing a convenient and secure location for drop off.

#### Department/Division/Staff: Public Works and Utilities - Solid Waste Division

**Procedure:** Assigned staff will greet the public in a prompt, professional, and friendly manner. Staff will proceed by conducting a HHW survey and asking the resident(s) if they possess infectious medical wastes (sharps or lancets) for special handling. The resident will also be asked if they possess any unacceptable waste such as ammunition, explosive materials as defined by 40 CFR, Section 173.5, or radioactive waste. Such materials will not be accepted. Staff will provide residents with options for proper handling.

#### Types of Household Hazardous Waste Accepted:

- Cleaning products
- Pesticides and herbicides
- Lawn and garden chemicals
- Pool chemicals
- Motor oil, antifreeze, vehicle related fluids
- Gasoline and other fuels
- \*Tires
- Mercury and mercury related waste
- Lithium and nickel cadmium batteries
- Lead acid batteries
- Acids
- Fire extinguishers
- Fluorescent bulbs
- Poisons
- · Paint and paint related products
- Aerosols
- Sharps, lancets and prescription drugs
- Computers and other electronics\*
- Photography chemical products
- Propane tanks

\* Collected at the Recycling – Solid Waste Collection Center in the recycling drop-off area.

## Waste not accepted at the City of Chandler Household Hazardous Waste Collection Facility include:

- Ammunition
- Infectious medical waste (excluding sharps and lancets secured in sealed and labeled containers)
- Explosives
- Radioactive wastes

Unloading Area

Staff assigned to unloading vehicles will remind the resident(s) to:



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- 1. Remain in the vehicle while in the vicinity of the HHW collection facility.
- 2. Smoking is prohibited.
- 3. If the HHW is not accessible by staff, ask the driver to release the trunk or allow staff to access the vehicle to remove the waste.
- 4. Check the general condition of the waste prior to unloading (leaking, open containers, deteriorated, not identified or not acceptable).
- 5. If leaking items or items that could cause potential spills are present, alert the resident(s) and staff for special handling. Use plastic bags or lined boxes (with absorbent, if necessary) to remove waste from the vehicle.
- 6. Seal poorly fitting lids or tops with duct or electrical tape.
- 7. Ask resident to identify any materials that are unknown or not labeled (if possible), prior to directing the resident from the unloading area.

#### Handling and Management of Known Materials

- 1. All materials will be placed on the sorting tables for segregation. Paints, paint related materials, motor oil, oil filters, antifreeze, poisons and pesticides, and bases in non-leaking containers are stored in the designated bay for storage, processing and consolidation.
- 2. Auto batteries, propane tanks and cylinders are to be stored outside the north end of the main processing building. Auto batteries shall be placed on the pallet and secondary containment platform as designated. Propane tanks and cylinders shall be secured in the secured storage system or adjacent to the building.

#### Handling and Management of Unknown Materials

Staff will handle all unknown materials received at the Household Hazardous Waste Collection Facility as follows:

- 1. Staff unloading the material will scan the load for any material that is not in an original container (i.e., glass jars, coffee cans, plastic milk jugs, etc.).
- 2. Staff will ask the participant if they know the contents of a container and will relay that information to other staff members for assistance, if necessary.
- 3. Staff will observe characteristics such as color and physical state (i.e., liquid, solid, gaseous, semi-solid, etc.), and any other indications of the material.
- 4. Once initial observations are made, staff shall secure the material for handling by the contractor for HazCat Testing.

Any waste that is unknown and cannot easily be identified will be secured in the designated area by staff. This waste will be HazCat tested by trained staff or contractor for proper identification and Department of Transportation (DOT) and/or Environmental Protection Agency (EPA) classification. Once identified, the waste shall be collected in the proper waste stream for recycling, packaging, and/or disposal.

**Equipment:** Personal protective equipment and safety equipment appropriate for site conditions and assigned activities, sorting table(s), plastic bags, lined boxes, absorbent material, duct tape, electrical tape, 55 gallon metal, fiber lined and poly drums, 30 gallon fiber drums, fiber tubes, 5 gallon buckets, mailing boxes, pallets, secondary containment, storage cabinet, shelving, plastic tub, cart, dolly, label(s), MSDS sheet(s), inventory sheet(s), funnel(s), fire extinguisher(s), non-spark tools.



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**Measurable Goal(s):** The number of residents utilizing the facility and total quantity of materials (pounds) dropped off to the facility will be tabulated and reported within the Annual Report. Additional information associated with the quantity of materials reused and/or recycled may be reported.

**Data Collection, Recordkeeping and Reporting:** The city will track the number of residents dropping off materials, and the weight of the materials that are recycled, landfilled or disposed of. The data collected will be maintained for a minimum of three (3) years following the end of the permit term. The number of residents dropping off the materials and the amount of recycled and landfilled material will be in each Annual Report during the permit term.

Legal Authority: N/A

**References:**City of Chandler Household Hazardous Waste Collection Facility Standard Operating Procedures – Unloading and Handling Materials

City of Chandler Household Hazardous Waste Collection Center Operations – General Plan

Implementation Status: Current BMP

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#### MCM 6-3 Implement Controls

#### Armstrong Yard and Recycling, Solid Waste Collection Center

**Objective:** Contain loose bulk material's such as dirt, street sweeping debris, and other materials in separate three-sided bins to contain the debris.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/Environmental Services Manager/Environmental Services Program Coordinator /Environmental Services Senior Technician

#### **Procedure:**

<u>Waste Disposal</u>: The bin's will be used to help contain the material to reduce the amount of dust, debris, and other material that could enter the MS4. Bulk material bin's will be maintained in the yard storage area. All material and debris will be deposited in the appropriate bin's when equipment such as trucks and sweepers are emptied. Separate bin's will be used for each material type. The area around the bin's will be kept clean by routinely sweeping the area and recycling and/or disposing of materials that are no longer needed.

<u>Litter Control:</u> Trash receptacles will be provided on site to collect small amounts of garbage and non-hazardous waste. If placed outdoors, the receptacles will have lids to prevent wind from carrying refuse out of the container.

<u>Waste and Trash Removal</u>: Removal of waste and trash will be based on the volume of refuse collected (bins and dumpsters) or on a set schedule (trash receptacles). Note that the bins and dumpsters will not be overfilled, and tarps or other forms of covering will be used to prevent waste materials from exiting the container during off-site transport.

Spill Prevention: Spill prevention will be in accordance with MCM 6-4 and MCM 6-5.

<u>Inspections:</u> Inspections will be performed in accordance with MCM 6-6 and 6-7. However, upon discovery, damaged bins and receptacles will be replaced and leaking fluids will be cleaned up.

Equipment: Storage bins, shovels, brooms, spill kits.

**Measurable Goal(s):** The city will maintain bulk material bins and trash receptacles and will evaluate the effectiveness and need for additional bins/receptacles and modify as necessary.

**Data Collection, Recordkeeping, and Reporting:** The type of material stored, collected, and deposed will be tracked. The number of bins located on the site will be tracked. Documentation of material quantities along with the number of bins within the site will be maintained for a minimum of three (3) years following the end of the permit term. The quantity of materials along with the number of bins placed onsite site will be reported in each Annual Report during the permit term.

Legal Authority: N/A

References:N/A

Implementation Status: Current BMP



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#### MCM 6-4 Implement Spill Prevention Controls and Countermeasures Armstrong Yard

**Objective:** Prevent the release of floatables, trash and pollutants into the MS4 from the chemicals, materials and waste biproducts, stored and generated at the Armstrong Yard.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/Environmental Services Manager/Environmental Services Program Coordinator /Environmental Services Senior Technician

#### **Procedure:**

- 1) Chemicals entering the Armstrong Yard will be inventoried. The inventory will include a copy of the MSDS, the quantity of the material being stored, the location where the material is being stored and if applicable the reportable spill quantity. All chemicals brought to the facility should be stored within their original container. If the chemicals brought to the site in bulk, they will be stored in a container designated specifically for the chemical, that is labeled and marked with the appropriate hazard signage. Bulk materials should have the reportable spill quantity clearly marked on the container or nearby to help in determining if a spilled quantity needs to be reported.
- 2) If possible, chemicals brought to the site will be stored inside a building or under a roof. All materials stored outside in containers with lids that seal and will be elevated above grade and surrounded by secondary containment measures. Materials stored indoors will be placed outside of the flow of traffic (i.e., forklifts). Materials placed outdoors will be stored away from vehicular traffic or placed behind a barrier. Containers and, if installed, the secondary containment measures will be inspected routinely to check for leaks at a minimum of once per year as part of the facility inspection. Damaged or leaking containers will be replaced upon discovery. Spilt materials will be cleaned upon discovery. Spills exceeding the reportable quantities will be reported to Environmental Management Division - Environmental Services Manager and the Chandler Fire Department (if necessary).
- 3) Spill kits will be placed within close proximity to liquid material storage areas such that they can be easily accessed in the event of a spill.
- 4) Equipment and Vehicles that are scheduled for maintenance and are not housed in an area with a secondary containment measure, will be checked daily for leaking fluids. Drip pans will be placed under any leak upon discovery. Material that has been inadvertently leaked onto the pavement will be cleaned up upon discovery. Vehicles that have been in an accident will have drip plans placed under them upon arrival.
- 5) Stockpiled material (asphalt, structural fill, topsoil, mulch, millings, etc.) will be stored away from flow paths and preferably in bays that prevent sediment from being transported off-site. It is recommended that when not actively being used tarps be placed over the stockpiles to prevent the materials from being windblown off site. Stockpiles that are not in a containment bay should have a secondary control measure encircling the base to prevent transport of the materials during a storm event.
- 6) Liquid waste materials will be stored in labeled containers that are housed indoors under roof or outdoors surrounded by a secondary containment

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measure. The containers will have lids. Containers will be removed or emptied on an as-needed basis. Containers will be inspected routinely to check for leaks at a minimum of once per year as part of the facility inspection. Damaged or leaking containers will be replaced upon discovery. Spiled materials will be cleaned upon discovery. Spills exceeding the reportable quantities will be reported to Environmental Management Division - Environmental Services Manager and the Chandler Fire Department (if necessary).

7) Solid waste materials will be stored in containers (bins or barrels) designated solely for solid waste. Prior to being placed in the bins items will be drained of any liquids. The bins will be inspected for damage routinely and at a minimum annually as part of the annual facility inspection. Damaged containers will be replaced as needed. The solid waste containers will be emptied on an as-needed basis.

**Equipment:** Liquid and solid material/waste storage containers, secondary containment measures, shovels, brooms, tarps, spill kits.

**Measurable Goal(s):** The city will track the types and quantities of materials brought to the site for the purpose of servicing of vehicles and equipment. The number of waste bins/containers, the location of the bins/containers and if installed the secondary containment measures will be tracked along an evaluation of their effectiveness in preventing spills. The number of spill kits used during a permit year will be tracked. Modifications will be made as necessary.

**Data Collection, Recordkeeping, and Reporting:** The types of material and total amount of material brought to the site will be documented. Number of waste bins/containers and their location will be documented. The number of spill kits used to clean up spills will be documented. The records regarding the chemical inventories and number of large spills will be maintained for a minimum of three (3) years following the end of the permit term. The inventory of material brought will be tracked. The number of spill kits used during the permit year will be tracked. The tracked items will be documented in each Annual Report during the permit term.

Legal Authority: N/A

References:N/A

Implementation Status: Current BMP

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#### MCM 6-5 Implement Spill Prevention Controls and Countermeasures Recycling, Solid Waste Collection Center (RSWCC)

**Objective:** Prevent the release of floatables, trash and pollutants into the MS4 from the chemicals/materials collected and stored at the Recycling, Solid Waste Collection Center.

Department/Division/Staff: Public Works and Utilities - Solid Waste Division

#### Procedure:

- 1) If possible, chemicals and hazardous materials brought to the RSWCC will be stored inside a building or under a roof. All materials stored outside in containers with lids that seal will be in be elevated above grade and surrounded by secondary containment measures. Materials stored indoors will be placed outside of the flow of traffic (i.e., forklifts). Materials placed outdoors will be stored away from vehicular traffic or placed behind a barrier. Containers and, if installed, the secondary containment measures will be inspected routinely to check for leaks and at a minimum of once per year as part of the facility inspection. Damaged or leaking containers will be replaced upon discovery. Spilt materials will be cleaned upon discovery. Spills exceeding the reportable quantities will be reported to Environmental Management Division - Environmental Services Manager and the Chandler Fire Department (if necessary).
- 2) Liquid waste materials will be stored in labeled containers that are housed indoors under roof or outdoors surrounded by a secondary containment measure. The containers will have lids. Containers will be removed or emptied on an as-needed basis. Containers and, if installed, the secondary containment measures will be inspected routinely to check for leaks at a minimum of once per year as part of the facility inspection. Damaged or leaking containers will be replaced upon discovery. Spilt materials will be reported to Environmental Management Division Environmental Services Manager and the Chandler Fire Department (if necessary).
- 3) Spill kits will be placed within close proximity to liquid material storage areas such that they can be easily accessed in the event of a spill.

Equipment: Storage containers, secondary containment measures, spill kits.

**Measurable Goal(s):** The city will maintain containers used to store chemicals and liquid waste brought to the facility by the public. The city will track the types of materials collected during a given permit year. The amount of liquid waste disposed of or recycled during a given permit year will be documented. The number of spill kits used during a given permit year will be tracked.

**Data Collection, Recordkeeping, and Reporting:** The types of liquid materials and quantities of liquid material brought to the site will be documented. The number of spill kits used during the permit year will be tracked. The records regarding these inventories will be maintained for a minimum of three (3) years following the end of the permit term. The types and quantities of liquid material collected, and the number of spill kits used will be documented in each Annual Report during the permit term.

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#### Legal Authority: N/A

References:N/A

Implementation Status: Current BMP

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#### MCM 6-6 Inspection and Maintenance Procedures Armstrong Yard

**Objective:** Inspect and maintain the components of the BMPs, including but not limited to storage containers, bins and trash receptacles, secondary containment measures, vehicle and equipment wash areas and storm drains in order to reduce floatables, trash and other pollutants from the MS4.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/ Environmental Program Manager/Environmental Services Program Coordinator / Environmental Services Senior Technician

**Procedure:** The inspection will be performed to identify structures or other BMPs that are damaged, in need of repair or maintenance and to evaluate the effectiveness of a BMP. The inspection should also include the identification of possible pollutant sources for the facility and ensure that BMPs are in place that account for the potential pollutant source.

Assigned staff will conduct quarterly inspections of:

- 1) vehicle wash areas
- 2) bins
- 3) chemical containers
- 4) waste containers and trash receptacles
- 5) storage containers
- 6) equipment/vehicle storage areas and parking lots
- 7) secondary containment areas

Assigned staff will annually inspect the above areas but also:

- 8) containment bays
- 9) drainage infrastructure (i.e., retention basins, culverts and storm drains, sumps)
- 10) material container labels
- 11) chemical Inventory and associated SDS Sheets
- 12) additional areas within the yard, not inspected during the quarterly inspections

The assigned staff will escalate the need for repairs, such that work orders can be created in the Lucity asset management system for all problems identified during the inspection. Follow-up inspections may be required as part of the work-order close out process.

**Equipment:** Camera, clipboard, paper, writing utensil, inspection mirror, flashlight or spotlight, tape measure, distance wheel, hand tools (manhole hook, rake, shovel, broom, large, slotted screwdriver, wrenches, sledgehammer, etc.), and checklists

**Measurable Goal(s):** The number of inspections, date and time of the inspection, the results and work orders generated will be tracked. Data collected from each inspection will be recorded on a checklist and stored in the SWMP for future reference.

## **QUICK LINKS**

<u>Appendix A: Drainage</u> <u>Map</u>

Appendix B: MCM 1 Public Education and Outreach BMPs

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Appendix D: MCM 3 Illicit Discharge Detection and Elimination Program BMP Details

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**Data Collection, Recordkeeping, and Reporting:** The number of inspections, the date and time of the inspections, results of the inspections, work orders and any changes to BMPs will be recorded. The inspection, results and maintenance data will be maintained for a minimum of three (3) years following the end of the permit term. The number of inspections, and summaries of the results and follow up maintenance will be reported in each Annual Report during the permit term. Any revisions to the BMPs will be incorporated into the SWMP and reported as part of the Annual Report.

Legal Authority: N/A

References:N/A

Implementation Status: Current BMP

## **QUICK LINKS**

<u>Appendix A: Drainage</u> <u>Map</u>

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#### MCM 6-7 Inspection and Maintenance Procedures Recycling, Solid Waste Collection Center and Hazardous Waste Facility (RSWCC)

**Objective:** Inspect and maintain the components of the BMPs, including but not limited to storage containers, bins and trash receptacles, secondary containment measures, vehicle and equipment wash areas and storm drains in order to reduce floatables, trash and other pollutants from the MS4.

Department/Division/Staff: Public Works and Utilities - Solid Waste Division

**Procedure:** The inspection will be performed to identify structures or other BMPs that are damaged, in need of repair or maintenance and to evaluate the effectiveness of a BMP. The inspection should also include the identification of possible pollutant sources for the facility and ensure that BMPs are in place that account for the potential pollutant source.

Assigned staff will conduct inspections twice per year examining:

- 1) waste bins
- 2) recycle bins
- 3) chemical containers
- 4) trash receptacles
- 5) vehicle/equipment storage areas and parking lots
- 6) secondary containment areas

Assigned staff will annually inspect the above areas but also:

- 7) drainage infrastructure (i.e., retention basins, culverts and storm drains, sumps)
- 8) chemical storages containers labels/reportable quantity data
- 9) additional areas within the yard, not inspected during the other inspections

The assigned staff will escalate the need for repairs, such that work orders can be created in the Lucity asset management system for all problems identified during the inspection. Follow-up inspections may be required as part of the work-order close out process.

**Equipment:** Camera, clipboard, paper, writing utensil, inspection mirror, flashlight or spotlight, tape measure, distance wheel, hand tools (manhole hook, rake, shovel, broom, large, slotted screwdriver, wrenches, sledgehammer, etc.), and checklists

**Measurable Goal(s):** The number of inspections, date and time of the inspection, the results and work orders generated will be tracked. Data collected from each inspection will be recorded on a checklist and stored in the SWMP for future reference.

**Data Collection, Recordkeeping, and Reporting:** The number of inspections, the date and time of the inspections, results of the inspections, work orders and any changes to BMPs will be recorded. The inspection, results and maintenance data will be maintained for a minimum of three (3) years following the end of the permit term. The number of inspections, and summaries of the results and follow up maintenance

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will be reported in each Annual Report during the permit term. Any revisions to the BMPs will be incorporated into the SWMP and reported as part of the Annual Report.

Legal Authority: N/A

References: AZPDES Small MS4 General Permit (Section .6.6.2c) AZDEQ.gov

Implementation Status: Current BMP

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#### MCM 6-8 Street Sweeping

**Objective:** To maintain clean, safe streets for the residents of the City of Chandler and collect litter and sediment prior to entering the storm sewer system. This effort will also reduce fugitive dust particulates from being entrained into the ambient air and keep gutters clear of dirt and refuse to ensure proper flow of water within the gutter and protection of asphalt surfaces along gutter line from deterioration due to water and dirt accumulation.

Department/Division/Staff: Public Works and Utilities – Solid Waste Division

#### **Procedure:**

- Residential streets are scheduled to be cleaned at a frequency of approximately once per month. Arterial roadways are cleaned weekly, alternating from curbside to medians bi-weekly, and the downtown area is addressed once per week. Rotations may vary depending on available staff, operational equipment, etc.
- 2) These cycles will be followed by each sweeper operator that is responsible to report work completed to the sweeping supervisor by logging it in their daily report and or recording it on the appropriate map to indicate area swept.
- 3) Before beginning work, check the sweeper. Operators are responsible for the cleanliness of equipment, maintaining proper fluid levels to ensure safe and efficient operation, proper operation of all safety devices, (warning lights, back-up alarms), proper lubrication of all areas per manufacturers specifications, necessary adjustments to gutter booms and pick-up brooms to provide optimal performance, (attack and tilt angles, down pressure on gutter broom platters and pick-up broom float adjustments where applicable). Operators will complete a walk around of equipment at the beginning and end of each work shift.
- 4) The operator determines the necessity of replacement of brooms when a point of wear reduces capability for optimal performance.
- 5) Notify sweeping Supervisor of all scheduled and un-scheduled maintenance required by completing form cc 68, vehicle work request.
- 6) Operators will clean equipment daily, prior to the end of shift and prepare vehicle for next day use ensuring all operational parts are free from excessive wear and fully functional. Ensure that all hydraulic hose connections are tight and hoses are free of potential problems.
- 7) Sweep to provide proper dust control with use of water spray bars, sweeping speed compatible to road surfaces and amount and type of debris, RPM adjustments to sweeping components can also be used in equipment with this availability. A goal of 90% pick up of debris should be expected in a single pass. In some cases, a second pass may be required.
- 8) While sweeping, large debris (branches, rocks, bricks, etc.) will be removed to the side of the street and off of the roadway. Use care to avoid parked vehicles. Avoid sweeping areas where large piles of rock/dirt, track-out from construction sites, etc. may exist.
- 9) Monitor gauges and re-fill water tank and empty sweeper in designated areas as needed.
- 10) Sweeping of residential areas will be done only in assigned areas per daily sweeping schedule maps. Exceptions are emergency situations or when special projects are designated. Sweep radius returns and medians as scheduled.

## **QUICK LINKS**

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- 11) The foremost consideration in the operation of street sweeping is safety. If sweeping function cannot be performed safely with regard to personal and private protection, it cannot be accomplished until safe conditions exist.
- 12) Empty sweeper at end of shift in sweeping pile at yard or appropriate roll off dumpsters located at well sites. Clean equipment and park in appropriate location.
- 13) All street sweeper operators are required to assist in storm clean up during their normal work shift if weather does not permit efficient and safe operation in their geographical sweeping area or at the request of supervisors in emergency situations as outlined in job specification for senior street specialist (other duties).
- 14) There shall be no un-approved alterations to any sweeper including stickers or writing unless authorized by the sweeping supervisor.
- 15) There shall not be any other persons in the cab except for another sweeping crew member unless approved by the street sweeping supervisor in advance.
- 16) The following items are subject to change at any time to accommodate the needs of street sweeping operations:
  - a) Roll off bin's loading assignment or any sweeping dump location
  - b) Wash bay maintenance
  - c) Truck assignment
  - d) Route assignment
  - e) Maintenance bay

**Equipment:** Street sweeper, personal protective equipment and safety equipment appropriate for site conditions and assigned activities, hand tools, shovel, etc.

**Measurable Goal(s):** The total number of miles swept, and amount of material removed from the street (tons) will be tabulated and reported within the Annual Report.

**Data Collection, Recordkeeping and Reporting:** Data quantifying the linear miles swept will be recorded throughout the permit term. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term. The number of miles will be reported in each Annual Report during the permit term.

Legal Authority: N/A

References N/A

Implementation Status: Current BMP

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#### MCM 6-9 Good House Keeping Operations and Inspections

#### (Other Facilities)

**Objective:** To reduce floatables, trash and other pollutants from Chandler Municipal Facilities from being discharged into the MS4.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/ Environmental Services Manager/Environmental Services Program Coordinator /Environmental Services Senior Technician

#### Procedure:

<u>Material/Chemical Storage:</u> It is recognized minor amounts of chemicals will be stored at each facility (i.e., cleaning products). These products will be kept indoors in their original containers. Pesticides and herbicides associated with landscaping efforts will be brought on-site at the time of need and not stored within the facility. Bulk amounts of materials or chemicals necessary for facility maintenance, or improvements will be brought on-site at the time of need and not stored within the facility.

<u>Litter Control:</u> Trash receptacles will be provided on site to collect small amounts of garbage and non-hazardous waste. The receptacles will have lids to prevent wind from carrying refuse out of the receptacle.

<u>Waste and Trash Removal:</u> Removal of waste and trash will be based on set schedule (trash receptacles).

<u>Spill Prevention:</u> Upon discovery damaged receptacles will be replaced and leaking fluids will be cleaned up.

<u>Inspections:</u> Assigned staff will conduct inspections of the facilities based on their priority as defined in MCM 6-1b. The inspection schedule based on the priority is as follows:

- High-Risk Quarterly
- Medium Risk Twice per year
- Low Risk Annually

Inspection will include the following items

- 1) trash receptacles
- 2) vehicle/equipment storage areas and parking lots
- 3) outdoor storage areas
- 4) drainage infrastructure (i.e., retention basins, culverts and storm drains, sumps)
- 5) common areas and landscape areas
- 6) facility specific areas identified by the Environmental Management Division

The assigned staff will review the results of the inspection and, if necessary, escalate items that need attention such that work orders can be created in the Lucity asset management system.



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Equipment: Camera, clipboard, paper, writing utensil, checklist

**Measurable Goal(s):** The number of inspections and work orders generated will be tabulated and reported within the Annual Report. Data collected from each inspection will be recorded.

**Data Collection, Recordkeeping, and Reporting:** The number of inspections, the date and time of the inspections, results of the inspections, work orders and any changes to BMPs will be recorded. The inspection, results and maintenance data will be maintained for a minimum of three (3) years following the end of the permit term. The number of inspections, and summaries of the results and follow up maintenance will be reported in each Annual Report during the permit term. Any revisions to the BMPs will be incorporated into the SWMP and reported as part of the Annual Report.

Legal Authority: N/A

References:N/A

Implementation Status: Current BMP

## **QUICK LINKS**

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#### MCM 6-10 Operations and Maintenance of Storm Sewer System

**Objective:** Inspect and maintain the storm drainage system to reduce the discharge of pollutants from the MS4.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/ Environmental Services Manager/Environmental Services Program Coordinator /Environmental Services Senior Technician and Public Works Utilities – Streets Stormwater Division

**Procedure:** Assigned staff will conduct proactive inspections of catch basins, scuppers and drywells throughout the year. Additionally, MS4 structures will be inspected as a result of a complaint, field observation and/or a report of an illicit discharge.

#### Inspection procedure:

- Work orders for proactive inspections will be created in the Lucity asset management system. Proactive inspections will be primarily conducted by FMA. The inspector will utilize a GIS map to assist in navigation and orientation in the field and to identify specific structures to be inspected.
- 2. The inspector will look for obstructions or significant sediment or materials within the structure that may hinder flow. The structural integrity of the structure will also be evaluated. If significant standing water is observed to be present in a catch basin, the infrastructure downstream leading to the discharge or end point (headwall, bubbler box, drywell, etc.) will be inspected to determine the cause.
- The inspector will document field notes for each structure that was visually observed to have obstructions, significant sediment or materials or structural damage that may result in failure, street flooding or create a safety concern.
- 4. Following completion of the inspection, the inspector will return to the office and create work orders in the Lucity asset management system for any city owned storm sewer system structures within the FMA that require maintenance. In the case where a drywell was identified as requiring service, the inspector will notify the Environmental Services Program Coordinator so that a contractor can be scheduled to conduct the maintenance. Work orders will be separated by catch basins and scuppers, with no more than 5 catch basins or 10 scuppers included in a single work order. Work orders will be assigned to the stormwater maintenance crew.
- 5. In the case where privately owned structures located on commercial or residential properties have been determined to require maintenance for obstructions, significant sediment or materials or structural damage, the inspector will contact the applicable Property Manager, Homeowner's Association or property owner and inform them of the specific issue and the required maintenance or repair necessary to correct the issue. All post-construction issues will by entered into the Lucity asset management system. Applicable photos, correspondence, etc., will be documented within the respective work order.

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#### Maintenance procedure:

- 1. Obtain assigned work order(s) for the day.
- 2. Equipment is checked before leaving the city yard following the "walk around" procedure for CDL operators.
- 3. Proceed in a logical, geographical, sequential fashion to maintain storm drainage structures such as, catch basins, scuppers, bubbler boxes, spillways, laterals, culverts, drywells, pipes, and other areas where water is drained off of streets.
- 4. Employees are to wear all appropriate personal protective equipment and safety equipment including but not limited to: safety glasses, ear protection, safety vests or orange shirts, dust masks, etc.
- 5. Use all appropriate safety/warning lights referring to the City of Chandler Barricade and Traffic Control Manual.
- 6. On the site, secure the equipment off the road or sidewalks as much as possible. Use traffic cones, barricades, warning signs, arrow board, warning lights, etc. to secure the area before work begins.
- 7. Sweep (spillways) or vacuum (catch basins) the area to be cleaned. Remove grates and/or covers as needed to clean the area completely. Sludge out areas where there is buildup of mud, dirt, and debris. Shovel out for removal. Run the rodder through the lines when necessary/plugged.
- 8. After area is clean, staff will secure grates, covers and/or lids before leaving site. Note on daily work log any grates, covers and/or lids that need repair or replacement.
- 9. At end of the day, empty hydraulic vacuum truck and clean out truck. Check hoses and tools for any defects. Dispose of material in the vactor-wash bay area located at the city yard and clean out the truck.
- 10. Provide log of work completed with locations and applicable field notes to Crew Leader for completing Lucity work orders.

**Equipment: (Inspection)** Truck, personal protective equipment and safety equipment appropriate for site conditions and assigned activities, camera, clipboard, paper, writing utensil, inspection mirror, flashlight or spotlight, tape measure, distance wheel, hand tools (manhole hook, rake, shovel, broom, large, slotted screwdriver, wrenches, sledgehammer, etc.)

(Maintenance) Truck, service truck and/or hydrovac truck (vactor), personal protective equipment and safety equipment appropriate for site conditions and assigned activities, camera, clipboard, paper, writing utensil, inspection mirror, flashlight or spotlight, tape measure, hand tools (manhole hook, rake, shovels, hoses, broom, large, slotted screwdriver, wrenches, sledgehammer, etc.)

**Measurable Goal(s):** The number of structures inspected and maintained will be tabulated and reported within the Annual Report.

**Data Collection, Recordkeeping and Reporting:** The number of structures inspected, the dates and times of the inspection along with the results and follow-up maintenance information will be documented throughout the permit term. The information collected during the inspections will be maintained for a minimum of three (3) years following the end of the permit term. The number of structures inspected, a summary of results and maintenance efforts taken will be reported in each Annual Report during the permit term.

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#### Legal Authority: N/A

References: AZPDES Small MS4 General Permit (Section 6.6.2.c) AZDEQ.gov

Implementation Status: Current BMP

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#### MCM 6-11 Staff Training

**Objective:** Develop and implement a training program with the goal of informing City staff about preventing and reducing the discharge of pollutants to and from the MS4.

**Department/Division/Staff:** Management Services Department – Environmental Management Division/Environmental Services Manager/ Environmental Services Program Coordinator / Environmental Services Senior Technician

**Procedure:** Training topics or content may include, but is not limited to, the proper storage and clean-up of potential pollutant sources, maintenance practices, sediment and erosion control measures, identification of potential illicit discharges and the response to calls pertaining to illicit discharges and who to contact with questions, observations and/or concerns.

Such training will focus on those employees that may be involved in field-oriented roles, associated with construction activities and/or field staff that may use, store and/or dispose of potential pollutant sources.

The delivery method of training may include, but is not limited to a classroom setting, via the city's learning management system (LEAF), in the field, on the jobsite or at meetings. Training content may include video, PowerPoint presentations, verbal communication and/or handouts relevant to applicable job duties or activities. Training activities will occur throughout each year of the permit term. The frequency and number of training sessions may vary each year based on employee availability and other assigned duties. A training roster form will be prepared, and all training participants will be asked to fill out and sign the form. The training roster form may include the following information: Date, time, Department, Division, employee number, signature, a brief description of training content and the trainer(s) administering the session.

**Equipment:** Smartboard, projection screen, projector, dry erase board, dry erase markers, desktop or laptop computer, flash drive, DVD player, DVD, CD, laser pointer, speaker system, writing utensil, training roster form.

**Measurable Goal(s):** The training of staff will occur throughout each year of the permit term. The number of staff trained will be tabulated and reported within the Annual Report.

**Data Collection, Recordkeeping and Reporting:** Information regarding the date and time that the training occurred, the topic of the training, and the number of attendees will be recorded throughout the permit term. Information regarding the training sessions will be maintained for a minimum of three (3) years following the end of the permit term. The date and time of the training, training topic, and number of attendees will be reported in each Annual Report during the permit term.

Legal Authority: N/A

**References:**EPA Municipal Employee Training and Education <u>http://water.epa.gov/polwaste/npdes/swbmp/Municipal-Employee-Training-and-Education.cfm</u>

Implementation Status: Current BMP

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## Municipally Owned and Operated Facilities with Priority Rankings

Pollution Prevention and Good Housekeeping (PPGH) for Municipal Operations -Facility Inventory, Priority and Inspection Date

Building & Facilities				
Facility	Location	Inspection Frequency	Site Priority (1 - 3)	
COURTS	200 E Chicago St.	1	3	
CITY HALL COMPLEX	175 S. Arizona Ave	1	3	
TRANSPORTATION AND DEVELOPMENT/PWU	215 E Buffalo St.	1	3	
IT	215 E Buffalo St.	1	3	
CENTER FOR THE ARTS	250 N. Arizona Av.	1	3	
Fire Admin	151 E Boston St.	1	3	
FIRE STATION 1	1475 E Pecos Rd.	1	3	
FIRE STATION 2	1911 N. Alma School	1	3	
FIRE STATION 3	275 S. Ellis St.	1	3	
FIRE STATION 4	295 N. Kyrene Rd.	1	3	
FIRE STATION 5	1775 W Queen Crk Rd.	1	3	
FIRE STATION 6	911 N. Jackson St.	1	3	
FIRE STATION 7	6125 S. Gilbert Rd.	1	3	
FIRE STATION 8	711 W. Frye Rd.	1	3	
FIRE STATION 9	211 N Desert Breeze Bl.	1	3	
FIRE STATION 10	5211 S. McQueen Rd.	1	3	
Fire Station 11	4200 S. Gilbert Rd	1	3	
Fire Training	3550 S Dobson Rd	2	2	
FIRE SUPPORT	163 S. Price Rd.	1	3	
POLICE DEPT.	250 E. Chicago St.	1	3	
PD PROPERTY & EVIDENCE	576 W. Pecos Rd.	2	2	
PD (W) SUB STATION	251 N Desert Breeze Blvd	1	3	
PD (So.) SUB STATION	4040 E Chandler Heights	1	3	
PD Hamilton Facility	911 S Hamilton St	1	3	
Armstrong Yard - Central Supply	975 E Armstrong Way	2	2	
Armstrong Yard - Fleet	975 E Armstrong Way	2	2	
Armstrong Yard - WW Collections	975 E Armstrong Way	2	2	
Armstrong Yard - Distribution	975 E Armstrong Way	2	2	
Armstrong Yard - Streets	975 E Armstrong Way	2	2	
RSWCC/HHW	955 E. Queen Creek	2	2	

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or Production Excilition			
er Production Facilities	Location	Inspection Frequency	Site Priority (1 - 3)
Amberwood	2327 W Calle Del Norte	1	3
Apache	1353 N Evergreen	1	3
Basha Rd.	4501 S. Basha.	1	3
Brooks Crossing	1405 W Calle Del Norte	1	3
Bushway	625 W. Bushway	1	3
East Knox	450 E Knox Rd	1	3
Colt	2127 N 92nd Pl	1	3
Desert Breeze	600 N Desert Breeze Blvd	1	3
Frye	592 W Frye Rd	1	3
Gilbert Rd	6120 S. Gilbert Rd.	1	3
Hahn	500 E Warner	1	3
Hunt Highway	2022 E Hunt Highway	1	3
Lindsay Rd.	6300 S. Lindsay Rd.	1	3
Monterey	3840 W Monterey St	1	3
Appleby	3445 S Pinaleno Dr	1	3
Pennington	403 S Pennington	1	3
Price South	2499 S Price Rd	1	3
Roosevelt	331 S Roosevelt	1	3
Rural	600 N Rural Rd	1	3
Shawnee	1500 W Mesquite	1	3
West Pecos Rd.	1177 S Alma School Rd.	1	3
Alamosa Rd.	4260 S. Gilbert Rd.	1	3
Golden Lane	3651 W. Golden Lane	1	3
Iris Well	2948 E Iris Dr	1	3
Riggs	5920 S 142nd St	1	3
McQueen	625 N McQueen	1	3
McDermett	301 E Ocotillo	1	3
Pleasant	4877 S. Pleasant	1	3
Airport	2250 S Airport Blvd	1	3
Dobson South	3510 S Dobson Rd	1	3
East Wood	3250 E Wood Dr	1	3
Bright Angel	4576 S Bright Angel Wy	1	3
Norman Way	2765 E Ocotillo Rd	1	3
High Town		1	3

## **QUICK LINKS**

Appendix A: Drainage Map

Appendix B: MCM 1 Public Education and Outreach BMPs

Appendix C: MCM 2 Public Participation and Involvement BMP Details

Appendix D: MCM 3 Illicit Discharge Detection and Elimination Program BMP Details

Appendix E: MCM 4 Construction Activity Stormwater Runoff Control BMP Details

Appendix F: MCM 5 Post-Construction Stormwater Management in New Development and Redevelopment BMP Details

Appendix G: MCM 6 Pollution Prevention/Good Housekeeping for Municipal Operations BMP Details

Appendix H: Sampling and Analysis Plan

Appendix I: Notice of Intent

Appendix J: Annual Report

Appendix K: Annual Review and Revision Log





Wastewater Collection			
Facility	Location	Inspection Frequency	Site Priority (1 - 3)
Old Pecos Lift	6700 W Pecos	1	3
Riggs Lift	598 W Riggs	1	3
Manganaro Lift	2991 W Ray	1	3
Sunbird Lift	1520 E Hunt Hwy	1	3
Golf Course lift	308 E. Riggs	1	3
Kyrene Lift	825 S Kyrene	1	3
Mission Estates List	988 E Peach Tree Place	1	3
New Junction Lift	Price Rd	1	3
Germann Lift	603 E Germann Rd	1	3
Water Treatment Facilities			
Facility	Location	Inspection Frequency	Site Priority (1 - 3)
AWRF	905 E Queen Creek	2	2
OWRF	3315 S Old Price Rd	2	2
OBRF	3737 S Old Price Rd	2	2
SWTP	1475 E Pecos	2	2
Lone Butte		2	2
Other			
Facility	Location	Inspection Frequency	Site Priority (1 - 3)
Arrowhead Basin	1550 Erie	1	3
Denver Basin	Fairview and Hartford	1	3
Desert Breeze Maintenance	660 N. Desert Breeze	1	3
Downtown Maintenance	202 E. Boston	1	3
Snedigar Maintenance	4500 S. Basha Rd	1	3
Veteran Oasis Maintenance	4040 E. Chandler Heights	1	3
Tumbleweed Park Maintenance	650 E Ryan Rd	1	3
Desert Oasis Aquatics	1400 W Summit PI	1	3
Nozomi Aquatics	250 S Kyrene Rd	1	3
Hamilton Aquatics	3838 S Arizona Ave	1	3
Arrowhead Meadows Pool	1475 W Erie St	1	3
Mesquite Grove Aquatics	5901 S Hillcrest Dr	1	3
Folley Aquatics	600 E Fairview St	1	3

## **QUICK LINKS**

Appendix A: Drainage Map

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# APPENDIX H SAMPLING AND ANALYSIS PLAN

Sampling and Analysis Plan

## **QUICK LINKS**

<u>Appendix A: Drainage</u> <u>Map</u>

Appendix B: MCM 1 Public Education and Outreach BMPs

Appendix C: MCM 2 Public Participation and Involvement BMP Details

Appendix D: MCM 3 Illicit Discharge Detection and Elimination Program BMP Details

Appendix E: MCM 4 Construction Activity Stormwater Runoff Control BMP Details

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# CITY OF CHANDLER SAMPLING AND ANALYSIS PLAN (STORMWATER MANAGEMENT PROGRAM – APPENDIX H)

Updated May 17, 2024





## Prepared for:

City of Chandler 215 E. Buffalo St. Chandler, AZ 85225 Project NO: ST2113.101

## Prepared by:

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## SECTION 1 INTRODUCTION

This Sampling and Analysis Plan (SAP) has been prepared for the City of Chandler to comply with Arizona Department of Environmental Quality's (ADEQ) general permit for stormwater discharges from Small Municipal Separate Storm Sewer Systems (MS4), AZG2021-002 (permit). This SAP is part of the City's Stormwater Management Plan (SWMP). This SAP is intended to provide all details required by the Arizona Pollutant Discharge Elimination System General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems to Protected Surface Waters Permit <u>AG2021-002</u>.

#### **1.1 SAMPLING AND ANALYSIS PLAN OBJECTIVES**

There are multiple objectives for this plan:

- Establish sampling protocols and methods for stormwater monitoring and sampling, in order to characterize stormwater runoff from the City's MS4, as required under the AZG2021-002.
- Provide sampling locations for City of Chandler's SWMP, which are identified as Out-10-49-008, ST-CB-11-42-001, and ST-SCP-10-43-005 and are intended to monitor stormwater quality for discharges into Arizona Department of Transportation (ADOT) stormwater infrastructure and the Gila Drain. This MS4 does not discharge into any impaired or non-attaining waters, or Outstanding Arizona Water (OAW).
- Document sampling and analysis methods and equipment for collecting representative samples of stormwater that maximize resources.

### **1.2 CONTACT INFORMATION**

The following table outlines the personnel responsible for overseeing the City of Chandler Stormwater Management Plan and who will serve as the main points of contact overseeing the sampling and analysis processes.

#### TABLE 1: SWMP CONTACT INFORMATION

SWMP Contact Information		
Kenya Lugo-Waite	Dawn Lang	
Environmental Services Manager	Deputy City Manager/CFO	
City of Chandler	City of Chandler	
PO Box 4008 Mail Stop 607	PO Box 4008 Mail Stop 605	
Chandler, AZ 85244	Chandler, AZ 85244	
Phone: (480) 782-2387	Phone: (480) 782-2255	
Email: Kenya.Lugo@chandleraz.gov	Email: <u>Dawn.Lang@chandleraz.gov</u>	

#### **1.3** REASON FOR ANALYTICAL MONITORING

☑ Characterization Monitoring Required by ADEQ per permit number AZG2021-002

□ Impaired Waters Monitoring without a TMDL

□ Impaired Waters Monitoring with a TMDL

Outstanding Arizona Water (OAW) Monitoring





# SECTION 2 SAMPLING PROCESS

The general approach for this SAP is to collect a grab sample of stormwater at three different outfalls during the first 30 minutes of a "qualifying storm event". A grab sample is a single sample manually collected at one location during a short time period. Sample collection will occur one (1) time per outfall within the first three and a half (3.5) years of the permit. The following sections outline the procedures that should be followed for safely accessing the outfalls and collecting a representative 'first flush' stormwater sample.

#### 2.1 QUALIFYING STORM EVENT

Characterization monitoring shall be collected during a qualifying storm event. As defined in Section 7.2.2 of AZG2021-002, a qualifying storm event is an event that results in an amount of rainfall equal to or greater than 0.1 inches and results in a discharge within the first 24-hours of the event.

Until such time that a City of Chandler owned/operated rain gauge becomes available, local rain gages will be used to identify a "qualifying storm event" These gages may include those operated by The Maricopa County Flood Control District (<u>https://alert.fcd.maricopa.gov/alert/Google/v3/gmap.html</u>).

#### 2.2

The following table outlines the personnel responsible for collecting, packing, and delivering samples to laboratory.

#### TABLE 2: SAMPLING PERSONNEL

Staff Name	Email	Specific Responsibility
Israel Garcia	israel.garcia@wsp.com	Collected samples and delivered to Eurofins.
Mark Ortiz	Mark.ortiz@chandleraz.gov	Assisted Israel Garcia with sample collection.

#### 2.3 LOCATION OF DESCRIPTION OF OUTFALLS

The MS4 is located in Chandler, Arizona. Sampling locations have been identified at three outfall locations within Chandler city limits. These locations have been chosen because they are representative of the stormwater pollution from the City's MS4 and can be safely accessed by City personnel. These locations lie within the Middle Gila Watershed but there is no direct outfall to any receiving waters in this or any other watershed. Instead, these outfalls discharge into existing ADOT stormwater infrastructure and the Gila Drain, where access is limited.

The first outfall is identified in this plan as ST-CB-11-42-001 and is located south of W Chandler Blvd., at the northwestern corner of Kyrene Village Shopping Center. This outfall discharges into Gila Ditch and is easily accessible from W Chandler Blvd. The next is identified as ST-SCP-10-43-005 and is north of North Gila Springs Blvd. near Gila Springs Park. This outfall also discharges directly into Gila Ditch and is easily accessible from North Gila Springs Rd. Both outfalls are located just downstream of a box culvert and can easily be accessed from an adjacent sidewalk or the channel banks, which will provide safe access for personnel to collect samples during a storm event. The final outfall location is identified as Out-10-49-008 and is located near the corner of N Price Rd and W Galveston St, at the northwest corner of Thude Park. This outfall is located in a concrete-lined channel that conveys water only during/after a storm event. The stormwater exits from a screened corrugated metal pipe culvert. There is unrestricted access to the channel for personnel to collect a sample as it is leaving the culvert opening. Figure 1 shows the outfall locations. Figure 2 provides photos of the outfalls.





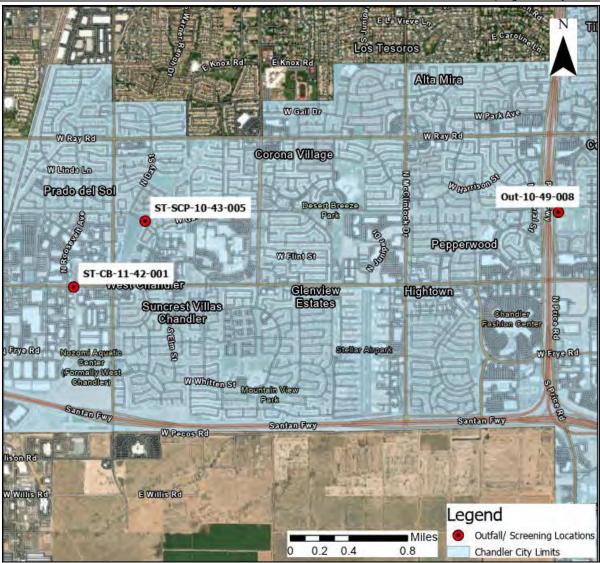


Figure 1 Characterization Monitoring Collection Locations



ST-SCP-10-43-005



ST-CB-11-42-001



Out-10-49-008

Figure 2 Characterization Monitoring Location Photos





#### 2.4 SAMPLING PROCEDURES

The following procedures will be used to collect samples at each of the identified outfall locations. The objective of this SAP is to characterize the stormwater runoff from the MS4 and therefore, there will be no testing of parameters in the field. All analysis will be completed by the testing laboratory. The testing laboratory may provide sample containers and labels, and may also provide information about required sample preservation and sample delivery methods. The testing laboratory should also be consulted to determine the appropriate sample volume required for each analyte. The complete list of constituents being analyzed can be found in <u>Appendix A</u>. All laboratory analysis must be conducted according to test procedures specified in 40 CFR 136.

- 1. Review weather forecasts in anticipation of a "qualifying storm event".
- 2. Collect the following materials prior to arriving at the collections site:
  - □ Sample Collection Form(s) for each outfall
  - $\Box$  Chain of Custody (COC) forms and seal
  - □ Sample collections containers
  - □ Sample labels
  - $\hfill\square$  Ladle used for sample collection
  - □ Camera (or Cell Phone with Camera)
  - □ Personal protective equipment (PPE)
  - □ Sample preservation materials, if needed
  - □ Traffic Control Equipment (Cones, Signs, Barricades, etc.)
- 3. Photograph flow discharging the site at the time of collection with time/date stamp.
- 4. Collect a manual grab sample of stormwater at the downstream side of the outfall location directly from the outfall pipe within 30 minutes of a "qualifying storm event". For the purpose of the SWMP, "a qualifying storm event" is rainfall in the amount of 0.1 inches or more and a resulting discharge within the first 24-hours of the event.
  - i. Collect the sample with a ladle or directly into a clean, clear glass or plastic container.
  - ii. Remove sample container lid immediately prior to sample collection, ensuring that you do not contaminate the neck, lid or inside of the container with fingers, particles or dripping water.
  - iii. Collect sample from the center of flowing water directly from the outfall, if possible, avoiding uncharacteristic debris.
  - iv. Fill container to the appropriate volume as determined by the testing laboratory.
  - v. Secure the sample lid and remove any dirt or debris from the outside of the container.
- 5. Complete the sample label provided by the testing laboratory with waterproof ink and adhere to sample container. Ensure that the following information is included on the label.
  - i. Sample identifier (e.g.: Out-10-49-008\_YYMMDD)
  - ii. Sampler initials
  - iii. Sample collection date/time
  - iv. Type of preservation use, if any.
- 6. Photograph the collected sample with the sample label visible.
- 7. Complete field documentation using the Stormwater MS4 Sample Collection Form found in <u>Appendix</u> <u>B</u>.
- 8. Complete the chain of custody (COC) form found in <u>Appendix B</u> at the end of the Stormwater MS4 collection form.





- 9. If preservation of the samples is required, follow all instructions given by the laboratory for sample preservation.
- 10. Deliver sample promptly (typically within 5-hours) to the laboratory that will be performing the analysis, along with a list of analytes being tested for which is found in <u>Appendix A</u>.
- 11. Relinquish the samples to the laboratory personnel. Sign and date COC forms.
- 12. Review local rain gage information to verify that the storm event is a "qualifying storm event".

Note that the characterization monitoring effort may also include a visual monitoring. If so performed, the visual monitoring will be documented on the Visual Monitoring Form Provided in <u>Appendix B</u>.

#### 2.5 SAFETY PROCEDURES

Sampling personnel shall wear appropriate personal protective equipment (PPE) when collecting samples. This includes, but is not limited to, close toed shoes, safety vest, and gloves at the time of collection. Personnel should not collect a sample if there is lightning in the area and should remain at a safe distance from moving water, keeping in mind that water levels in the canal can rise quickly during a storm event. If personnel are working close to or in a roadway to collect sample, traffic cones should be placed in the roadway to ensure an adequate distance is kept between personnel and oncoming traffic. If, at any time, the sampling personnel feel that the sample cannot be collected safely, activities should immediately be stopped, and personnel should move to a safe location.

## SECTION 3 ANALYTICAL PROCESSES

#### 3.1 ANALYTICAL METHODS

Samples will be analyzed by the testing laboratory for all parameters required by ADEQ's Stormwater Characterization Monitoring Requirements. Each sample will be tested for constituents in the following classes metals, inorganics, VOC's, semi-VOC's- acid extractable, semi-VOC's- bases/neutrals, and PCB's/pesticides. A complete list of constituents being tested can be found in <u>Appendix A</u>. It should be noted that the constituents presented are particular to those required for Characterization Monitoring. Any additional analytical monitoring constituents as required by ADEQ will be tested for as part of this process. These additional constituents will be added to those compiled in <u>Appendix A</u>.

#### 3.2 LABORATORY CONTACT INFORMATION

Testing will be conducted by a laboratory certified by the <u>Arizona Department of Health Services</u>. For this process, the following laboratory will be used.

Testing Facility		
Laboratory Name: Eurofins Phoenix		
Address: 4625 East Cotton Center Blvd. S	Suite #189, Phoenix, AZ 85040	
Hours of Operation: Open: 7:30 AM	Close 5:30 PM	
Phone: <u>602-659-7681</u>	Fax:	
Contact: Linda Eshelman	Email: linda.eshelman@et.eurofinsus.com	

All laboratory analysis must be conducted according to test procedures specified in 40 CFR 136. The laboratory





results must identify analytical methods and limits of detections for each analyte. The results will be stored in <u>Appendix C</u>

#### 3.3 TESTING RESULTS AND RECORD KEEPING REQUIREMENTS

Records of monitoring information must include the results of each stormwater monitoring event using the Stormwater Collection Form, found in <u>Appendix B</u>, and laboratory analyses.

All results must be submitted within 30 days of receipt from the testing laboratory on an electronic Discharge Monitoring Report (eDMR) via a myDEQ account as prescribed in the 2020 CGP, Part 7.5(3)(d).

All results, including the sample collection form, will be incorporated into the Storm Water Management Plan which will be retained for a period of 3 years following the expiration of the current Permit.

Should the results indicate that the site is noncompliant the Arizona Department of Environmental Quality will be notified by writing within 5 business days.

Arizona Department of Environmental Quality 1110 W. Washington Street Mail Code 5515 B-1 Phoenix, AZ 85007 FAX 602.771.4505

If there is a danger to the environment or human health notification can be made via phone to ADEQ Phone Number: **602.771.2330**.





# APPENDIX A STORMWATER CHARACTERIZATION MONITORING REQUIREMENTS





# **Stormwater Characterization Monitoring Requirements**

All permittees shall conduct stormwater characterization monitoring for the parameters listed in below.

PARAMETER	UNITS	MONITORING FREQUENCY	MONITORING TYPE
Antimony	µg/L	1x during first 3.5 years of permit term	Discrete
Barium	µg/L	1x during first 3.5 years of permit term	Discrete
Beryllium	µg/L	1x during first 3.5 years of permit term	Discrete
Cadmium	µg/L	1x during first 3.5 years of permit term	Discrete
Nickel	µg/L	1x during first 3.5 years of permit term	Discrete
Mercury	µg/L	1x during first 3.5 years of permit term	Discrete
Silver	µg/L	1x during first 3.5 years of permit term	Discrete
Thallium	µg/L	1x during first 3.5 years of permit term	Discrete
		INORGANICS	
Cyanide	µg/L	1x during first 3.5 years of permit term	Discrete
	VOLATILE ORGANIC COMPOUNDS (VOCS)		
Acrolein	µg/L	1x during first 3.5 years of permit term	Discrete
Acrylonitrile	µg/L	1x during first 3.5 years of permit term	Discrete
Benzene	µg/L	1x during first 3.5 years of permit term	Discrete
Carbon tetrachloride	µg/L	1x during first 3.5 years of permit term	Discrete
Chlorobenzene	µg/L	1x during first 3.5 years of permit term	Discrete



PARAMETER	UNITS	MONITORING FREQUENCY	MONITORING TYPE
Dibromochloromethane	µg/L	1x during first 3.5 years of permit term	Discrete
Chloroethane	µg/L	1x during first 3.5 years of permit term	Discrete
2-chloroethylvinyl ether	µg/L	1x during first 3.5 years of permit term	Discrete
Chloroform	µg/L	1x during first 3.5 years of permit term	Discrete
Bromodichloromethane	µg/L	1x during first 3.5 years of permit term	Discrete
1,2-dichlorobenzene	µg/L	1x during first 3.5 years of permit term	Discrete
1,3-dichlorobenzene	µg/L	1x during first 3.5 years of permit term	Discrete
1,4-dichlorobenzene	µg/L	1x during first 3.5 years of permit term	Discrete
1,1-dichloroethane	µg/L	1x during first 3.5 years of permit term	Discrete
1,2-dichloroethane	µg/L	1x during first 3.5 years of permit term	Discrete
1,3-dichloropropylene	µg/L	1x during first 3.5 years of permit term	Discrete
Ethylbenzene	µg/L	1x during first 3.5 years of permit term	Discrete
Bromomethane	µg/L	1x during first 3.5 years of permit term	Discrete
Chloromethane	µg/L	1x during first 3.5 years of permit term	Discrete
Methylene chloride	µg/L	1x during first 3.5 years of permit term	Discrete
1,1,2,2- tetrachloroethan e	µg/L	1x during first 3.5 years of permit term	Discrete
Tetrachloroethylene	µg/L	1x during first 3.5 years of permit term	Discrete
Toluene	µg/L	1x during first 3.5 years of permit term	Discrete
1,2-trans- dichloroethylen e	μg/L	1x during first 3.5 years of permit term	Discrete
1,1,1-trichloroethane	µg/L	1x during first 3.5 years of permit term	Discrete



PARAMETER	UNITS	MONITORING FREQUENCY	MONITORING TYPE				
1,1,2-trichloroethane	µg/L	1x during first 3.5 years of permit term	Discrete				
Trichloroethylene	µg/L	1x during first 3.5 years of permit term	Discrete				
Vinyl chloride	µg/L	1x during first 3.5 years of permit term	Discrete				
Xylene	µg/L	1x during first 3.5 years of permit term	Discrete				
	Ser	MI-VOCS - ACID EXTRACTABLE					
2-chlorophenol	µg/L	1x during first 3.5 years of permit term	Discrete				
2,4-dichlorophenol	µg/L	1x during first 3.5 years of permit term	Discrete				
2,4-dimethylphenol	µg/L	1x during first 3.5 years of permit term	Discrete				
4,6-dinitro-o-cresol	µg/L	1x during first 3.5 years of permit term	Discrete				
2,4-dinitrophenol	µg/L	1x during first 3.5 years of permit term	Discrete				
2-nitrophenol	µg/L	1x during first 3.5 years of permit term	Discrete				
4-nitrophenol	µg/L	1x during first 3.5 years of permit term	Discrete				
p-chloro-m-cresol	µg/L	1x during first 3.5 years of permit term	Discrete				
Pentachlorophenol	µg/L	1x during first 3.5 years of permit term	Discrete				
Phenol	µg/L	1x during first 3.5 years of permit term	Discrete				
2,4,6-trichlorophenol	µg/L	1x during first 3.5 years of permit term	Discrete				
SEMI-VOCS - BASE/NEUTRALS							
Acenaphthene	µg/L	1x during first 3.5 years of permit term	Discrete				
Acenaphthylene	µg/L	1x during first 3.5 years of permit term	Discrete				
Anthracene	µg/L	1x during first 3.5 years of permit term	Discrete				
Benz(a)anthracene	µg/L	1x during first 3.5 years of permit term	Discrete				



PARAMETER	UNITS	MONITORING FREQUENCY	MONITORING TYPE
Benzo(a)pyrene	µg/L	1x during first 3.5 years of permit term	Discrete
Benzo(b)fluoranthene	µg/L	1x during first 3.5 years of permit term	Discrete
Benzo(g,h,i)perylene	µg/L	1x during first 3.5 years of permit term	Discrete
Benzo(k)fluoranthene	µg/L	1x during first 3.5 years of permit term	Discrete
Chrysene	µg/L	1x during first 3.5 years of permit term	Discrete
Dibenzo(a,h)anthracene	µg/L	1x during first 3.5 years of permit term	Discrete
3,3'-dichlorobenzidine	µg/L	1x during first 3.5 years of permit term	Discrete
Diethyl phthalate	µg/L	1x during first 3.5 years of permit term	Discrete
Dimethyl phthalate	µg/L	1x during first 3.5 years of permit term	Discrete
Di-n-butyl phthalate	µg/L	1x during first 3.5 years of permit term	Discrete
2,4-dinitrotoluene	µg/L	1x during first 3.5 years of permit term	Discrete
2,6-dinitrotoluene	µg/L	1x during first 3.5 years of permit term	Discrete
Di-n-octyl phthalate	µg/L	1x during first 3.5 years of permit term	Discrete
1,2-diphenylhydrazine (as azobenzene)	µg/L	1x during first 3.5 years of permit term	Discrete
Fluoranthene	µg/L	1x during first 3.5 years of permit term	Discrete
Fluorene	µg/L	1x during first 3.5 years of permit term	Discrete
Hexachlorobenzene	µg/L	1x during first 3.5 years of permit term	Discrete
Hexachlorobutadiene	µg/L	1x during first 3.5 years of permit term	Discrete
Hexachlorocyclopenta di ene	µg/L	1x during first 3.5 years of permit term	Discrete
Hexachloroethane	µg/L	1x during first 3.5 years of permit term	Discrete



PARAMETER	UNITS	MONITORING FREQUENCY	MONITORING TYPE
Indeno(1,2,3-cd)pyrene	µg/L	1x during first 3.5 years of permit term	Discrete
Isophorone	µg/L	1x during first 3.5 years of permit term	Discrete
Naphthalene	µg/L	1x during first 3.5 years of permit term	Discrete
Nitrobenzene	µg/L	1x during first 3.5 years of permit term	Discrete
N-nitrosodimethylamine	µg/L	1x during first 3.5 years of permit term	Discrete
N-nitrosodi-n- propylamine	µg/L	1x during first 3.5 years of permit term	Discrete
N-nitrosodiphenylamine	µg/L	1x during first 3.5 years of permit term	Discrete
Phenanthrene	µg/L	1x during first 3.5 years of permit term	Discrete
Pyrene	µg/L	1x during first 3.5 years of permit term	Discrete
1,2,4-trichlorobenzene	µg/L	1x during first 3.5 years of permit term	Discrete
		PCB/PESTICIDES	
Aldrin	µg/L	1x during first 3.5 years of permit term	Discrete
Alpha-BHC	µg/L	1x during first 3.5 years of permit term	Discrete
Beta-BHC	µg/L	1x during first 3.5 years of permit term	Discrete
Gamma-BHC	µg/L	1x during first 3.5 years of permit term	Discrete
Delta-BHC	µg/L	1x during first 3.5 years of permit term	Discrete
Chlordane	µg/L	1x during first 3.5 years of permit term	Discrete
4,4'-DDT	µg/L	1x during first 3.5 years of permit term	Discrete
4,4'-DDE	µg/L	1x during first 3.5 years of permit term	Discrete
4,4'-DDD	µg/L	1x during first 3.5 years of permit term	Discrete



PARAMETER	UNITS	MONITORING FREQUENCY	MONITORING TYPE
Dieldrin	µg/L	1x during first 3.5 years of permit term	Discrete
Alpha-endosulfan	µg/L	1x during first 3.5 years of permit term	Discrete
Beta-endosulfan	µg/L	1x during first 3.5 years of permit term	Discrete
Endosulfan sulfate	µg/L	1x during first 3.5 years of permit term	Discrete
Endrin	µg/L	1x during first 3.5 years of permit term	Discrete
Endrin aldehyde	µg/L	1x during first 3.5 years of permit term	Discrete
Heptachlor	µg/L	1x during first 3.5 years of permit term	Discrete
Heptachlor epoxide	µg/L	1x during first 3.5 years of permit term	Discrete
PCB-1242	µg/L	1x during first 3.5 years of permit term	Discrete
PCB-1254	µg/L	1x during first 3.5 years of permit term	Discrete
PCB-1221	µg/L	1x during first 3.5 years of permit term	Discrete
PCB-1232	µg/L	1x during first 3.5 years of permit term	Discrete
PCB-1248	µg/L	1x during first 3.5 years of permit term	Discrete
PCB-1260	µg/L	1x during first 3.5 years of permit term	Discrete
PCB-1016	µg/L	1x during first 3.5 years of permit term	Discrete
Toxaphene	µg/L	1x during first 3.5 years of permit term	Discrete

### Notes:

- 1. The permittee shall include any additional parameters in stormwater sampling as specified by Part 5.0 Water Quality Standards of this permit.
- 2. The permittee shall collect discrete samples and shall attempt to include the "first flush" (first 30 minutes of stormwater discharge) of a qualifying storm event whenever possible to do so. Auto Sampling equipment may be used, if available.
- 3. When analyzing for metals, the permittee shall assume a 1:1 total dissolved ratio for purposes of reporting and comparison with SWQS. Alternatively, the permittee may test for dissolved metals, if appropriate field filtering is completed. Hardness data must also be collected and used to calculate the corresponding SWQS for certain metals as indicated by SWQS rules.



# APPENDIX B FORMS

Stormwater Sample Collection Form Chain of Custody Form Visual Monitoring Form





# Stormwater Characterization Monitoring Collection Form

	Facility Sample Information						
Name:	City of Chandler			AZPMS	4 Auth. No.	AZG2021-002	
Outfall Identifier:	ST-CB-11-42	2-00	1				
General Location: <u>The outfall is lease</u> <u>at the northwe</u> <u>Shopping Cen</u>	stern corner o	of Ky	vrene Village				
<u>Gila Ditch and</u> Blvd.	is accessible	fron	n W Chandler				
						Photo of Site	
			Sampling Personn	el Inform	ation		
Person(s)/Title(s) collect	cting sample:						
Email:					Phone		
Person(s)/Title(s) assis	ting with sample:						
Email:					Phone		
	1		Field Sampli	ng Data			
Nature of Discharge:	□ Stormwater □ S	Snown	nelt D Other (explain):				
Date & Time Storm Eve	ent:		Date & Time Sample C	ollected:			
Rainfall Amount (inche	s):		Gage Source/Location	(If used t	o determine rai	infall amount)	
Was the sample taken storm? □ Yes □ No	in first 30 minutes of	F	Was the sample taken at least 72 hours after a previous storm event?*       If no, to either provide explanation:         □ Yes □ No       No			planation:	
* The 72-hour interval can documentation) that less	n be waived when the than a 72-hour interva	previou al is rep	is storm did not yield a me presentative of local storm	asurable c events du	lischarge or if yo ring the sampling	u are able to document (atta g period.	ich applicable
			Field Sampli	•			
Purpose for Sampling			□ Analytical □ TDMI			equest	
Type of Sample			oler	er □0	ther		_
Field Instrument Calibration Data: (Auto Sampler only)	Date of Last Calibra Method of Calibration						
Quantity of Sample	Number of Laborate	ory Co	ntainers		or Number of	fml	(ml)
Unique Sample Identifier (To be matched to Identifier on COC)							
Laboratory Testing Parameters (Maybe provided by Testing Lab)	🗆 Yes 🗆 No	If Yes	s, Type and Amount:				



Preservatives Added to Samples	L I Voc I I No If Voc I voo and Amount						
	Field Observation Da	ita					
Indicators of Stormwater Pollution Observed? (May be based on a Visual Assessment)	□ No □ Yes (Describe):						
Do the observations indicate an illicit discharge?	□ No □ Yes (Describe):	□ No □ Yes (Describe):					
Do the observations indicate require further investigation?	□ No □ Yes (Describe):						
Additional observatio	ns of sampling procedures and conditions at the time of sam	npling:					
Description of probler	ms encountered, or deviations made from the Sampling and	I Analysis Plan (S.	AP):				
	Certification Stateme	ent					
to assure that qualified the system, or those pe	of law that this document and all attachments were prepared under personnel properly gathered and evaluated the information submersons directly responsible for gathering the information, the infor e. I am aware that there are significant penalties for submitting fals	nitted. Based on my mation submitted is	y inquiry of the person or persons who manage s, to the best of my knowledge and belief, true,				
A. Printed Name:		B. Title:					
C. Signature:		D. Date Signed:					
Email:		Phone					
	Chain of Custody						
Laboratory: Name:							
Laboratory: Address		Phone:					
Custodian Name		Title:					
Custodian Signature		Date Signed					
COC Identifier		Used as validation	n of information in				
Email:		Phone					



# Stormwater Characterization Monitoring Collection Form (Complete a separate form for each outfall sampled)

	Facility Sample Information					
Name:	City of Chandler		AZPMS	4 Auth. No.	AZG2021-002	
Outfall Identifier:	ST-SCP-10-43	-005				
General Location: <u>The outfall is located north of North Gila</u> <u>Springs Blvd near Gila Springs Park. The</u> <u>outfall discharges into Gila Ditch is</u> <u>accessible from North Gila Springs Blvd.</u>						
Photo of Site						
		Sampling Personr	nel Inform	ation		
Person(s)/Title(s) colle	cting sample:					
Email:				Phone		
Person(s)/Title(s) assis	ting with sample:					
Email:				Phone		
		Field Sampl	ing Data			
Nature of Discharge:	□ Stormwater □ Sn	owmelt 🛛 Other (explain)	:			
Date & Time Storm Ev	ent:	Date & Time Sample (	Collected:			
Rainfall Amount (inche	s):	Gage Source/Locatior	n (If used to determine rainfall amount)			
Was the sample taken storm? □ Yes □ No	in first 30 minutes of	Was the sample taken a previous storm ever □ Yes □ No		2 hours after	If no, to either provide e	explanation:
* The 72-hour interval can documentation) that less	n be waived when the pre than a 72-hour interval is	vious storm did not yield a me representative of local storm	easurable c i events du	lischarge or if yo ring the samplin	u are able to document (at g period.	tach applicable
		Field Sampl	ing Data			
Purpose for Sampling	□ Characterization	□ Analytical □ TDM			Request   Other	
Type of Sample		ampler	ler □0	ther		
Field Instrument Calibration Data: (Auto Sampler only)	Date of Last Calibration	n:				
Quantity of Sample	Number of Laboratory	Containers		or Number o	fml	(ml)
Unique Sample Identifier (To be matched to Identifier on COC)						
Laboratory Testing Parameters (Maybe provided by Testing Lab)	□ Yes □ No If Yes, Type and Amount:					



Preservatives Added to Samples	L I Voc I I No If Voc I voo and Amount						
	Field Observation Da	ita					
Indicators of Stormwater Pollution Observed? (May be based on a Visual Assessment)	□ No □ Yes (Describe):						
Do the observations indicate an illicit discharge?	□ No □ Yes (Describe):	□ No □ Yes (Describe):					
Do the observations indicate require further investigation?	□ No □ Yes (Describe):						
Additional observatio	ns of sampling procedures and conditions at the time of sam	npling:					
Description of probler	ms encountered, or deviations made from the Sampling and	I Analysis Plan (S.	AP):				
	Certification Stateme	ent					
to assure that qualified the system, or those pe	of law that this document and all attachments were prepared under personnel properly gathered and evaluated the information submersons directly responsible for gathering the information, the infor e. I am aware that there are significant penalties for submitting fals	nitted. Based on my mation submitted is	y inquiry of the person or persons who manage s, to the best of my knowledge and belief, true,				
A. Printed Name:		B. Title:					
C. Signature:		D. Date Signed:					
Email:		Phone					
	Chain of Custody						
Laboratory: Name:							
Laboratory: Address		Phone:					
Custodian Name		Title:					
Custodian Signature		Date Signed					
COC Identifier		Used as validation	n of information in				
Email:		Phone					



# Stormwater Characterization Monitoring Collection Form

	Facility Sample Information						
Name:	City of Chandler			AZPMS	4 Auth. No.	AZG2021-002	
Outfall Identifier:	OUT-10-49-0	800				I	
General Location: <u>This outfall is located at the corner of Price</u> <u>Rd and W Galveston St, as the northwest</u> <u>corner of Thude Park. The outfall discharges</u> <u>into a concrete lined open channel.</u>							
						Photo of Site	
			Sampling Personne	el Inform	ation		
Person(s)/Title(s) collect	cting sample:						
Email:					Phone		
Person(s)/Title(s) assis	sting with sample:						
Email:					Phone		
	1		Field Samplin	ng Data			
Nature of Discharge:	□ Stormwater □ S	nown	nelt D Other (explain):				
Date & Time Storm Eve	ent:		Date & Time Sample C	ollected:			
Rainfall Amount (inche	s):		Gage Source/Location	(If used t	o determine rai	infall amount)	
Was the sample taken storm? □ Yes □ No	in first 30 minutes of		Was the sample taken a previous storm event □ Yes □ No		2 hours after	If no, to either provide ex	planation:
			is storm did not yield a mean resentative of local storm			u are able to document (atta g period.	ach applicable
			Field Sampli	-			
Purpose for Sampling	Characterization	ו ב	🛛 Analytical 🗆 TDMI	Based	□ ADEQ R	equest	
Type of Sample			ler	er □0	ther		
Field Instrument Calibration Data: (Auto Sampler only)	Date of Last Calibra Method of Calibratio						
Quantity of Sample	Number of Laborato	ry Co	ntainers		or Number of	fml	(ml)
Unique Sample Identifier (To be matched to Identifier on COC)							
Laboratory Testing Parameters (Maybe provided by Testing Lab)	□ Yes □ No	lf Yes	, Type and Amount:				



Preservatives Added to Samples	L I Voc I I No If Voc I voo and Amount						
	Field Observation Da	ita					
Indicators of Stormwater Pollution Observed? (May be based on a Visual Assessment)	□ No □ Yes (Describe):						
Do the observations indicate an illicit discharge?	□ No □ Yes (Describe):	□ No □ Yes (Describe):					
Do the observations indicate require further investigation?	□ No □ Yes (Describe):						
Additional observatio	ns of sampling procedures and conditions at the time of sam	npling:					
Description of probler	ms encountered, or deviations made from the Sampling and	I Analysis Plan (S.	AP):				
	Certification Stateme	ent					
to assure that qualified the system, or those pe	of law that this document and all attachments were prepared under personnel properly gathered and evaluated the information submersons directly responsible for gathering the information, the infor e. I am aware that there are significant penalties for submitting fals	nitted. Based on my mation submitted is	y inquiry of the person or persons who manage s, to the best of my knowledge and belief, true,				
A. Printed Name:		B. Title:					
C. Signature:		D. Date Signed:					
Email:		Phone					
	Chain of Custody						
Laboratory: Name:							
Laboratory: Address		Phone:					
Custodian Name		Title:					
Custodian Signature		Date Signed					
COC Identifier		Used as validation	n of information in				
Email:		Phone					



# Stormwater Characterization Monitoring Collection Form (Complete a separate form for each outfall sampled)

Facility Sample Information							
Name:	City of Chandler			AZPMS	4 Auth. No.		
Outfall Identifier:						·	
General Location:							
						Photo of Site	
			Sampling Personr	el Inform	nation		
Person(s)/Title(s) colle	cting sample:						
Email:					Phone		
Person(s)/Title(s) assis	sting with sample:						
Email:					Phone		
			Field Sampl	ing Data			
Nature of Discharge:	□ Stormwater □	Snown	nelt 🗆 Other (explain)	:			
Date & Time Storm Ev	ent:		Date & Time Sample (	Collected:			
Rainfall Amount (inche	s):		Gage Source/Location	I (If used t	o determine ra	infall amount)	
Was the sample taken storm?	in first 30 minutes o	of	Was the sample taken at least 72 hours after a previous storm event?*				
□ Yes □ No			$\Box$ Yes $\Box$ No				
* The 72-hour interval ca documentation) that less	n be waived when the than a 72-hour interva	previou al is rep	is storm did not yield a me resentative of local storm	easurable o events du	discharge or if yo ring the sampling	u are able to document g period.	(attach applicable
			Field Sampl	ing Data			
Purpose for Sampling	Characterization	on 🗆	🗆 Analytical 🗆 TDM	IL Based	🗆 ADEQ R	Request 🗆 Other	
Type of Sample	🗆 Grab 🗆 Auto	o samp	ler 🛛 Passive samp	ler 🗆 C	)ther		
Field Instrument	Date of Last Calibr	ation:					
Calibration Data: (Auto Sampler only)	Method of Calibrati	ion:					
Quantity of Sample	Number of Laborat	tory Co	ntainers		or Number o	f ml	(ml)
Unique Sample Identifier (To be matched to Identifier on COC)							
Laboratory Testing Parameters (Maybe provided by Testing Lab)	□ Yes □ No	If Yes	;, Type and Amount:				



Preservatives Added to Samples	└ □ Yes □ No If Yes, Type and Amount:						
Field Observation Data							
Indicators of Stormwater Pollution Observed? (May be based on a Visual Assessment)	□ No □ Yes (Describe):						
Do the observations indicate an illicit discharge?	□ No □ Yes (Describe):						
Do the observations indicate require further investigation?	, □ No □ Yes (Describe):						
Additional observatio	ons of sampling procedures and conditions at the time of sam	npling:					
Description of proble	ms encountered, or deviations made from the Sampling and	l Analysis Plan (S	AP):				
	Certification Stateme	nt					
"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 the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."							
A. Printed Name:		B. Title:					
C. Signature:		D. Date Signed:					
Email:		Phone					
Chain of Custody							
Laboratory: Name:							
Laboratory: Address		Phone:					
Custodian Name		Title:					
Custodian Signature		Date Signed					
COC Identifier	Used as validation of information in						
Email:		Phone					



# Chain of Custody

Laboratory ID:		Sample ID:		
Client Name/Address		Project Name:	Out	fall ID:
		Project Number:		
		Report to: Name:	Pho	ne No.
		Email:		
Sampler:	Preservative:	Seals:	Total Containers:	Temperature:

Lab #	Client ID	Date	Time	Matrix	# of Cont.	Tested Constituents	Comments/Appearance

Relinquished by:	Received by:		



# <u>Stormwater Management Program –</u> <u>Visual Monitoring Report Form</u>

SECTION A GENERAL INFORMATION						
Inspection Date:	Time:					
Screening Location:	<ul> <li>SanTan 202 &amp; Stellar PW / Geronimo St (MH-12-45-010) (COC)</li> <li>SanTan 202 &amp; Stellar AP Runway / Geronimo St (CB-12-46-005) (COC)</li> <li>SanTan 202 &amp; McClintock Rd (MH-12-47-010) (COC)</li> <li>SanTan 202 &amp; Kenwood Ln (CB-12-47-005) (COC)</li> <li>Price Fwy 101 Frontage Rd &amp; Galveston St – Thude Park (Out-10-49-008) (COC)</li> <li>Price Fwy 101 Frontage Rd &amp; Galveston St – Thude Park (Out-10-49-008) (COC)</li> <li>Southside of Chandler Blvd. @ Gila Drain and Chandler Blvd. (ST-CB-11-42-001)</li> <li>Southside of Gila Drain &amp; Gila Springs Blvd. (ST-SCP-10-43-005)</li> </ul>					
Staff Present at Time of Monitoring:	Name: Phone: Email: Department:					
Type of Monitoring:	□ Dry Weather □ Wet Weather □ Characterization					
Was Flow Observed:	☐ Yes ☐ No Notify the Stormwater Programs Coordinator immediately if any visual observations may be an active upstream discharge that could not be identified or determined at the time of the inspection.					
Structure Type:	Channel Manhole Catch Basin Other					
Dominant Watershed Land:	□ Industrial □ Commercial □ Residential □ Other					



	SECTION	N B WEATHER CO	NDITIONS			
Rainfall Intensity:	🗆 No Rain 🛛 F	🗆 No Rain 🛛 Heavy 🗆 Moderate 🗆 Light				
Rain Gage Data:	Total Inches: Storm Duration: Peak Intensity:					
Flow Intensity: (If no flow meter present.)	□ Substantial (above curb)	□ Moderate (below curb)	□ Light (gutter only)			
Flow Rate: (Flow Meter Reading):	gp	m   □ cfs				

SECTION C VISUAL OBSERVATIONS (DISCHARGE SAMPLE)							
Odor:	<ul> <li>□ None</li> <li>□ Musty</li> <li>□ Sewage</li> <li>□ Rotten Eggs</li> <li>□ Sour Milk</li> <li>□ Other</li> </ul>						
Color:	□ None □ Red □ Yellow □ Brown □ Green □ Grey □ White □ Other						
Clarity:	□ Clean □ Cloudy □ Opaque						
Solids:	□ None □ Floating □ Suspended □ Settled						
Floatables:	<ul> <li>None  Trash/Litter  Sewage (Toilet Paper)  Petroleum</li> <li>Soap/Suds/Foam  Oily Sheen</li> <li>Other</li> </ul>						

SECTION D VISUAL OBSERVATIONS (OTHER)							
Deposits/Staining:	<ul><li>□ None</li><li>□ Other</li></ul>	□ Sediment	□ Oily	□ Rusty			
Vegetation Growth:	□ None □ Other	Normal	□ Excessive	□ Inhibitive			
Structural Conditions:	□ Normal □ Repairs N	□ Cracking eeded	□ Corrosion				
Biological:	<ul> <li>□ None</li> <li>□ Mosquito Larvae/Pupa</li> <li>□ Algae</li> <li>□ Other</li> </ul>						

SECTION E – WORK ORDER NOTES						
Work Order created for maintenance or repairs?	□ Yes	□ No	Work Order #			
Description						

Section F - Signatures					
Inspector:	Signature:	Date:			
	Title:	Dept:			



## APPENDIX I NOTICE OF INTENT

**QUICK LINKS** 

Appendix A: Drainage Map

Appendix B: MCM 1 Public Education and Outreach BMPs

Appendix C: MCM 2 Public Participation and Involvement BMP Details

Appendix D: MCM 3 Illicit Discharge Detection and Elimination Program BMP Details

Appendix E: MCM 4 Construction Activity Stormwater Runoff Control BMP Details

Appendix F: MCM 5 Post-Construction Stormwater Management in New Development and Redevelopment BMP Details

Appendix G: MCM 6 Pollution Prevention/Good Housekeeping for Municipal Operations BMP Details

Appendix H: Sampling and Analysis Plan

Appendix I: Notice of Intent

Appendix J: Annual Report

Appendix K: Annual Review and Revision Log

Appendix L Forms





## ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



1110 West Washington Street Phoenix, Arizona 85007 (602) 771-2300 www.azdeq.gov

# **Permit Authorization Certificate**

# **Authorization Number: AZSM91583**

# Permit Name: **AZPDES Small Municipal Separate Storm Sewer Systems (MS4s) General Permit** LTF Number: **91583** Permit Number: **AZG-2021-002** Issue Date: **10/27/2021**

<u>Coverage Issued to:</u> Name: CITY OF CHANDLER-STORMWATER PROGRAM

<u>MS4 Contact Information:</u> Name: **Dave I Verhelst** Phone: **4807823503** Work Email: **david.verhelst@chandleraz.gov** 

# **AZPDES MS4 Annual Permit Fee**

Please note, that pursuant to Arizona Administrative Code, Title 18, Chapter 14, Article 109(C), you will be billed an annual permit fee equal to the initial fee until such time as you submit a Notice of Termination to close out your permit coverage.

www.azdeq.gov



## APPENDIX J ANNUAL REPORT

Stormwater Annual Report – 2022/2023 Stormwater Annual Report – 2021/2022

#### **QUICK LINKS**

Appendix A: Drainage Map

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## **APPENDIX K ANNUAL REVIEW AND REVISION LOG**

SWMP Annual Review Date	SWMP Revised (Y/N)	Revisio n Date	Revision Completed by: (Print)	Revision Summary
2024	Y	August 5, 2024	Kenya Lugo- Waite	Updated Table of Contents Updated Job Titles throughout entire document Section 2.4.1 Updated Code Section Titles to match Code Titles Removed Technical Design Manual #3 and updated with Engineering & Design Standards Manual throughout the SWMP Updated groups in Section 3.1 to match MS4 permit Removed from Metrics several sections "The results will be reported annually" when not required (e.g. Section MCM 1-3) Changed MCM 2-4 from Public Meetings to HOA/Neighborhood Association Meetings in Section 4.2 Removed Section MCM 3-7 Rain Gage Installation. Added Private Storm sewer structures to MCM 5-1 Inspections, removed 1-year warranty inspections. Section 8.2 changed high risk facilities to medium risk MCM 6-5,6-6 updated Responsible Department to Solid Waste MCM 6-7 Updated Responsible Department MCM 6-8 Updated Responsible Department MCM 6-10 Updated Responsible Department MCM 6-10 Updated Responsible Department MCM 6-10 Updated Responsible Department MCM 6-20 Updated Responsible Department MCM 6-10 Updated Responsible Department Appendices Changes MCM 1-2 Measurable Goal – removed 4 outreach events to "will participate in outreach events." MCM 2-7 Modified Measurable Goal to serve on the executive board of STORM MCM 3-7 – Removed Rain Gage Section MCM 4-3 Modified Frequency of Inspections to match MS4 permit and inspection procedure Appendix A – Updated Map

#### **QUICK LINKS**

<u>Appendix A: Drainage</u> <u>Map</u>

Appendix B: MCM 1 Public Education and Outreach BMPs

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Appendix L: Forms





## APPENDIX L FORMS

Public Event Form

- IDDE Complaint Inspection Form
- Construction Inspection Form
- Post-Construction Inspection Form
- Visual Monitoring Form
- **Employee Training Form**
- Facility Activities Form
- **Chemical Tracking Form**
- Good Housekeeping/Facility Inspection Form

#### **QUICK LINKS**

Appendix A: Drainage Map

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## **Stormwater Management Program - Public Event Report Form**

#### **Contact Information**

Name:	
Phone:	
Address:	

#### **Event Information**

Name:	Location:
Date:	Time:
Type of Event: Public Education and Public Participat	ion
Event Description:	
Estimated Attendance:	
Estimated # of Attendees with Direct Discussion of S	Stormwater Pollution Prevention:
Type and # of Brochures Distributed:	
Type and # of Handouts Distributed:	
Type of Displays Utilized:	
Other:	



Case #.\_\_\_\_\_

## Stormwater Management Program – Illicit Discharge investigation Form

	Section A INSPECTION TRACKING INFORMATION
	Notice: $\Box 1^{st}$ Notice $\Box 2^{nd}$ Notice
	Person Taking the Complaint:
{Insert Map of Outfall Location}	How was the complaint
(insert mup of outful Loouton)	filed?
	Name of Inspector:
	Inspection Date: Time of Inspection:
	Weather Conditions:
	SECTION B SITE LOCATION: (SEE LOCATION MAP)
	ADDRESS:
	Latitude: Longitude:
	Section: Township: Range:
	Closest Cross-Streets:
	Upstream Land Use:



Case #.\_\_\_\_

Photo of Illicit Discharge Site 1 (Two Photos Minimum)								
	SECTION C ILLICIT DISCHARGE DESCRIPTION							
{Insert Photo of Illicit Discharge}	TYPE OF ILLICIT DISCHARGE	DESCRIPTION						
	Trash/Debris/Vegetation/							
	□ Hazardous Material Spill							
	Chemical Spill							
	□ Sediment Laden Flow							
Photo of Illicit Discharge Site 1	I Non-stormwater Flow							
(Additional Photos can be added as attachments)	□ Other:							
	Was there stormwater runoff present at the time of the inspection?	□ Yes □ No						
	Flow Description:	□ Light □ Moderate □ Substantial (above curb) (below curb) (gutter only)						
{Insert Photo of Illicit Discharge}		ontains hazardous materials, area and report the spill to the						



Case #.\_\_\_\_

SECTION D RESPONSIBLE PARTY INFORMATION POLLUTANTS/PARAMETERS MONITORED										
POTENTIAL SOURCE	CHECK ALL THAT APPLY	Address of Source	CONTACT NAME	CONTACT PHONE NUMBER						
Private Resident										
Commercial Facility										
Industrial Facility										
Public Facility										
Other										

SECTION E COMPLAINT CLOSE OUT							
	E OF IONS		DESCRIPTION OF ACTION (INCLUDE DATES IF POSSIBLE)				
Notice of Violation	□ Yes	🗆 No					
Follow-up Inspection	□ Yes	🗆 No					
Clean up Request	□ Yes	🗆 No					
Plan of Action Request	□ Yes	🗆 No					
Civil Penalty	□ Yes	🗆 No					
Criminal Lawsuit	□ Yes	🗆 No					
Arbitration	□ Yes	🗆 No					
Appeal	□ Yes	🗆 No					
No Action	□ Yes	🗆 No					



Case #.\_\_\_\_\_

# SECT ION F COMMENTS (ADD ADDITIONAL INFORMATION PERTINENT TO FUTURE INSPECTIONS)

SECTION G CERTIFICATION									
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or those persons directly responsible for gathering the information, I believe the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."									
Printed Name:	Phone:								
Signature:		Date:							



## **CITY OF CHANDLER**

Case #.

**Streets Division – Stormwater Management** 

**Transportation and Development Department** 

NOTICE TO COMPLY

This notice is not a ticket or a citation

Date:	Time:		ам С	] рм	Response:		fo 🗌	тс 🗆	fo 🗌	тс	Other
Responsible Party:		Residential 🗆	Busines	s Addr	ess or Locatio	n					

It is our sincere intent to protect the health, safety and welfare of the citizens of Chandler, by ensuring that its streets, alleys, storm drainage system and other rights-of-ways remain clean and safe. We request and appreciate your cooperation by keeping your property, alley, drainage ways, drainage infrastructure and adjoining right-of-way clean and safe. To help us in this effort, please note that following item(s) that require your attention.

	VIOLATION AND CORRECTIVE ACTION NEEDED									
	Specific Location:									
APPLICABLE CITY CODE 45-8	□ Front Yard □ Side Yard □ Rear Yard □ Alley □ City Right-of-Way □ Drainageway									
	□ Other :									
DESCRIPTION OF VIOLATION:										
REQUIRED ACTION:										
	Specific Location:									
Applicable City Code 45-8	□ Front Yard □ Side Yard □ Rear Yard □ Alley □ City Right-of-Way □ Drainageway									
	□Other :									
REQUIRED ACTION:										
A reinspection will be conducted on to verify compliance.										

Thank you in advance for your cooperation in making the City of Chandler a better place to live and work. If for any reason, you have difficulty complying with the noted corrective action(s) listed above or need further information, please contact the inspector listed below.

Inspector:	Phone:		Email:						
Materials Distr	ibuted: A Notice to Comply Pollu	ition Prevention Brochure	City Co	de 🗌 Pool Drainage 🗌	Other				
<ul> <li>Applicable Regulations:</li> <li>City Chandler Ordinance 3976 § 1.A.</li> <li>Municipal Code: Chapter 45-8 Non—Stormwater Discharges</li> <li>National Pollutant Discharge Elimination System (NPDES Permit: (40 Code of Federal Regulations Part 122)</li> <li>Arizona Pollutant Discharge Elimination System (AZPDES) Permit (Arizona Administrative Code R18-9-A902)</li> </ul>									
Failure to Comply may result in civil infraction, in accordance with Chapter 26 of the Municipal Code.									

## REMEMBER: ONLY RAIN IN THE STORM DRAIN! For more information, go to: <u>www.chandleraz.gov/stormwater</u>

White Cop (File)



Management Services Environmental Management 175 S. Arizona Ave. Chandler, AZ 85225 Office: (480)782-3503 Fax: (480)782-2382

#### **Stormwater Site Inspection Report - Construction**

General Information													
Proje	ct Nan	ne									AZCON #		
Locat	ion											Acres Distu	rbed
Deve	loper/C	Operato	r							Conta	ct Info		
Cons	truction	n Type		Residential Commercial CIP									
Construction Phase				Land Dev	/		Vertical	Othe	r				
Inspe	ction T	ype		Pre-Con	Ro	utine	Complaint	Field O	bservat	ion Post-Storm Event Off-S			Off-Site
			E	rosion and S	edim	ent Co	ntrols				Observa	ations	
Yes	No	N/A	Perimeter erosion/sediment controls adequately installed and maintained?										
Yes	No	N/A		rain inlets and	drywe	ells pro	tected?						
Yes	No	N/A	Suitable	track-out cont	trol de	evice in	stalled/maintair	ned?					
Yes	No	N/A	Paved a	reas at site egr	ess po	ints fre	e of track-out d	ebris?					
Yes	No	N/A	BMP's	effective and in	n good	1 repair	?						
Yes	No	N/A	Dust com maintain		ation r	neasure	es implemented	and					
				keeping and	Pollu	tion P	revention		1		Observa	ations	
Yes	No	N/A					t free of track-o	out?			0.5501 (1		
Yes	No	N/A	Concret	e washout con	e washout containment implemented/maintained?								
Yes	No	N/A	Constru	ction chemical	s and	materia	lls covered/con	tained?					
Yes	No	N/A	Trash/li	tter contained a	and re	gularly	collected?						
Yes	No	N/A	Non-sto	rmwater disch	arges	control	led?						
Yes	No	N/A	Is there	a street sweep	er ons	ite?							
		Statu			rrect	ive Ac	tion(s) Requi	red			No A	ction Neede	d
Com	ments/	Corre	ctive Acti	ions:									
<u> </u>			ation t	ha aa (	- d -						01	a ala Marta d	
Follo	Follow-up inspection to be conducted on:										Outre		al(s) provided e(s) provided:
											-		

Inspector Name:	Date/Time:	Signature:
On-Site Representative:	Title:	Company:



#### PUNCH LIST (STORMWATER)

PROJECT NAME		
LOCATION		
DATE / TIME		
INSPECTION TYPE	Final	
PUBLIC WORKS INSPECTOR		Phone #: (480)
ENVIRONMENTAL MANAGEMENT		Phone #: (480)

ITEM NO.	DESCRIPTION	LOCATION
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

#### **GENERAL PUNCH LIST NOTES**

1. All retention basins must drain within 36 hours to avoid issues related to standing water. Maintenance or other methods of mitigating standing water may be necessary in the future.

2. Drywell drilling logs and percolation test results shall be submitted to the City.

3. Ensure that <u>all</u> stormwater system components including, but not limited to catch basins, scuppers, spillways, drywells, headwalls, bubbler boxes, nuisance drains, pipes, underground retention, etc. are appropriately connected to positively convey drainage.

4. Ensure positive flow lines and/or elevations from rip-rap splash pad(s) at end of spillway(s) to surrounding landscaped areas are present to encourage even distribution and percolation.

5. Ensure that all rings/frames associated with interceptor and drywell grates/covers are secured in place.

6. All stormwater system components shall be constructed per City of Chandler standard details and approved plans.

7. Ensure that all disturbed areas have been stabilized per approved plans.

STRUCTURES	QUANTITY
CATCH BASINS	
SCUPPERS / SPILLWAYS	
BUBBLER BOXES	
DRYWELLS	
HEADWALLS	
RETENTION BASINS	
NUISANCE DRAIN STRUCTURES	
UNDERGROUND RETENTION	
CURB CUTS	
INLET MARKERS	



## <u>Stormwater Management Program –</u> <u>Visual Monitoring Report Form</u>

SECTION A GENERAL INFORMATION					
Inspection Date:	Time:				
Screening Location:	<ul> <li>SanTan 202 &amp; Stellar PW / Geronimo St (MH-12-45-010) (COC)</li> <li>SanTan 202 &amp; Stellar AP Runway / Geronimo St (CB-12-46-005) (COC)</li> <li>SanTan 202 &amp; McClintock Rd (MH-12-47-010) (COC)</li> <li>SanTan 202 &amp; Kenwood Ln (CB-12-47-005) (COC)</li> <li>Price Fwy 101 Frontage Rd &amp; Galveston St – Thude Park (Out-10-49-008) (COC)</li> <li>Southside of Chandler Blvd. @ Gila Drain and Chandler Blvd. (ST-CB-11-42-001)</li> <li>Southside of Gila Drain &amp; Gila Springs Blvd. (ST-SCP-10-43-005)</li> </ul>				
Staff Present at Time of Monitoring:	Name: Phone: Email: Department:				
Type of Monitoring:	Dry Weather Wet Weather Characterization				
Was Flow Observed:	□ Yes □ No Notify the Stormwater Programs Coordinator immediately if any visual observations may be an active upstream discharge that could not be identified or determined at the time of the inspection.				
Structure Type:	Channel Manhole Catch Basin Other				
Dominant Watershed Land:	□ Industrial       □ Commercial       □ Residential         □ Other				



SECTION B WEATHER CONDITIONS					
Rainfall Intensity:	🗆 No Rain 🗆 I	□ No Rain □ Heavy □ Moderate □ Light			
Rain Gage Data:	Storm Duration:	Total Inches: Storm Duration: Peak Intensity:			
Flow Intensity: (If no flow meter present.)	□ Substantial (above curb)	□ Moderate (below curb)	□ Light (gutter only)		
Flow Rate: (Flow Meter Reading):	gr	om □ cfs			

SECTION C VISUAL OBSERVATIONS (DISCHARGE SAMPLE)					
Odor:	□ None □ Musty □ Sewage □ Rotten Eggs □ Sour Milk □ Other				
Color:	□ None □ Red □ Yellow □ Brown □ Green □ Grey □ White □ Other				
Clarity:	□ Clean □ Cloudy □ Opaque				
Solids:	□ None □ Floating □ Suspended □ Settled				
Floatables:	<ul> <li>None Trash/Litter      <li>Sewage (Toilet Paper) </li> <li>Petroleum </li> <li>Soap/Suds/Foam </li> <li>Oily Sheen </li> <li>Other</li> </li></ul>				

SECTION D VISUAL OBSERVATIONS (OTHER)							
Deposits/Staining:	<ul><li>□ None</li><li>□ Other</li></ul>	□ Sediment	□ Oily	□ Rusty			
Vegetation Growth:	□ None □ Other	□ Normal	Excessive	□ Inhibitive -			
Structural Conditions:	Normal      Cracking      Corrosion     Repairs Needed						
Biological:	logical:						



SECTION E – WORK ORDER NOTES					
Work Order created for maintenance or repairs?	□ Yes	□ No	Work Order #		
Description					

Section F - Signatures				
Inspector:	Signature:	Date:		
	Title:	Dept:		



## <u>Stormwater Management Program –</u> <u>Employee Training Form</u>

Training Information							
Trair	ing Date:		Instructor:				
Title	Title of Training:						
Desc	ription of Training	g:					
			Attendees	T			
	Department	Trainee Name (Printed):	Employee Signature:	Email			
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
Instru	Instructor: Signature:						

Note: Training records need to be retained as part of the SWMP.



## <u>Stormwater Management Program –</u> <u>Summary of Facility Activities/Pollutant Identification</u>

Facility Name:	Risk Rating:	High 🗆 Mediur	n 🗆 Low		
Address:					
City: State: Zip Code: Phone Number:					
	SECTION A FACIL				
DESCRIPTION OF ACTIVITY	POTENTIAL	POLLUTANT LOCATION WHERE ACTIVITY OCCURS			
EX. Vehicle Storage		Fuel, Oil, Hydraulic and Transmission Fluids, Antifreeze		Northeast Corner of Site	

Section B Verification								
Inspector:	Signature:	Date:						
	Title:	Dept:						



### <u>Stormwater Management Program –</u> <u>Summary of Chemical Tracking</u>

Chemical/ Pollutant <sup>1</sup>	Amount Stored	Packaging/ Stored Location <sup>2</sup>	Storage Date <sup>3</sup>	Removal Date <sup>4</sup>	Reportable Quantity	Verified by (Print Name/Signature/Date)⁵
						Printed Name:
						Date:
						Printed Name:
						Date:
						Printed Name:
						Date:
						Printed Name:
						Date:
						Printed Name:
						Date:
						Printed Name:
						Date:

- 1. Insert names of chemicals or pollutants that are located on site. (Hydraulic Fluid)
- 2. Indicate where it is stored (e.g. Drum/Outside Shed #2)
- 3. Provide a date when the material was brought onto the site.
- 4. If no longer on site, provide a date when the material was permanently removed.
- 5. Printed name of the person maintaining the list and date it was updated.
- 6. Use as many forms as necessary



## Stormwater Site Assessment Report

Inspection Date:									
inspection Dute.									
Inspection Time:									
Follow-up									
Among of Maniping I Aptiviting on Materials Toward I to Standard and									
Areas of Municipal Activities or Materials Exposed to Stormwater           Inspected         Corrective Action(s) / Comments									
General Observations									
No Evidence of or potential for non-stormwater discharges entering stormwater drainage system (on-site or MS4)?									
MPs?									
Inspection Status:         Corrective Action(s) Required (Follow-up Inspection Required)         No Action Needed									
Comments/Corrective Actions:									
*Follow-up inspection to be conducted on:									
Date /Time:									