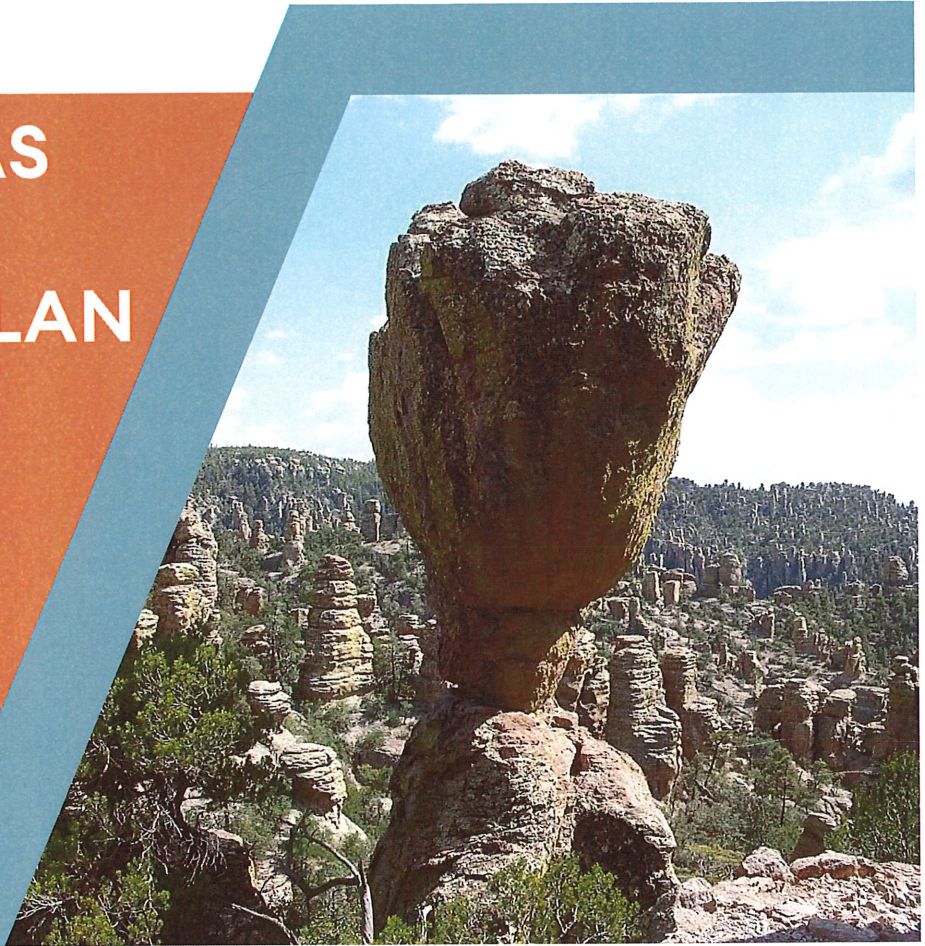




CITY OF DOUGLAS STORMWATER MANAGEMENT PLAN

September 2023



Prepared for:

City of Douglas
Public Works Department
425 E 10th Street
Douglas, Arizona 85607

Submitted by:

JE Fuller
Project #: P4151.01
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CERTIFICATION STATEMENT

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Permit Number: AZG2021-002

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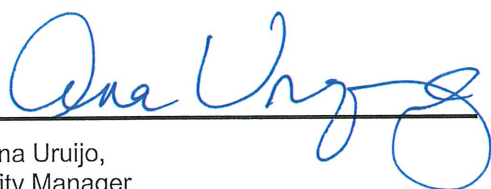
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I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. 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.



Ana Urquijo,
City Manager

10/31/2023
Date:

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EXECUTIVE SUMMARY

This Stormwater Management Program (SWMP) has been prepared for the City of Douglas (Douglas) 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), [AZG2021-002](#) (Permit). It is the intent of the Permit to reduce to the "maximum extent practicable" (MEP), the discharges of pollutants from small municipal separate storm sewer systems (MS4) to the designated Waters 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 [A.R.S.49-255.04](#).

To comply compliance with the permit, Douglas has developed a Storm Water Management Program (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, Douglas has selected a series of Best Management Practices (BMPs) that will be implemented within Douglas's urbanized areas. While numerous governmental departments will be tasked with the implementation of the SWMP and BMPs described within the MCM categories, Douglas's Public Works Department will ultimately be responsible for administrating and overseeing their implementation. These best management practices are described in Appendix B – G of the SWMP.

Because the SWMP is designed to be a comprehensive program document outlining how the stormwater program is implemented and maintained, additional sections have been included to address:

- Legal Authority
- MS4 Mapping
- Monitoring
- Program evaluation and revision
- Reporting

The Permit was issued by ADEQ effective on November 29th, 2021, and will expire on November 28th, 2026. If ADEQ does not reissue the general permit before the expiration date, this permit will be administratively continued in accordance with [A.A.C. R-18-9-C903](#) 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. Revisions to the SWMP, or the BMPs will be tracked with the supporting documentation incorporated into the appendix of this document and reported as part of the Annual Report. The Annual Report and SWMP are available to the public for review online ([City of Douglas Stormwater](#)).

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SECTION 1 STORMWATER MANAGEMENT PROGRAM INTRODUCTION

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 the 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 Douglas (Douglas) is required to update the 2016 SWMP to reflect the requirements presented in the General Permit [AZG2021-002](#) (Permit).

1.2 SWMP COVERAGE AREA

The City of Douglas is located in southeastern, Arizona approximately 120 miles from Tucson, Arizona as can be seen in **Figure 1**. It lies in San Bernadino Valley adjacent to Aqua Preita, Sonora, Mexico which is just across the border. The City is located in Cochise County and has a population of around 16,500 residents.

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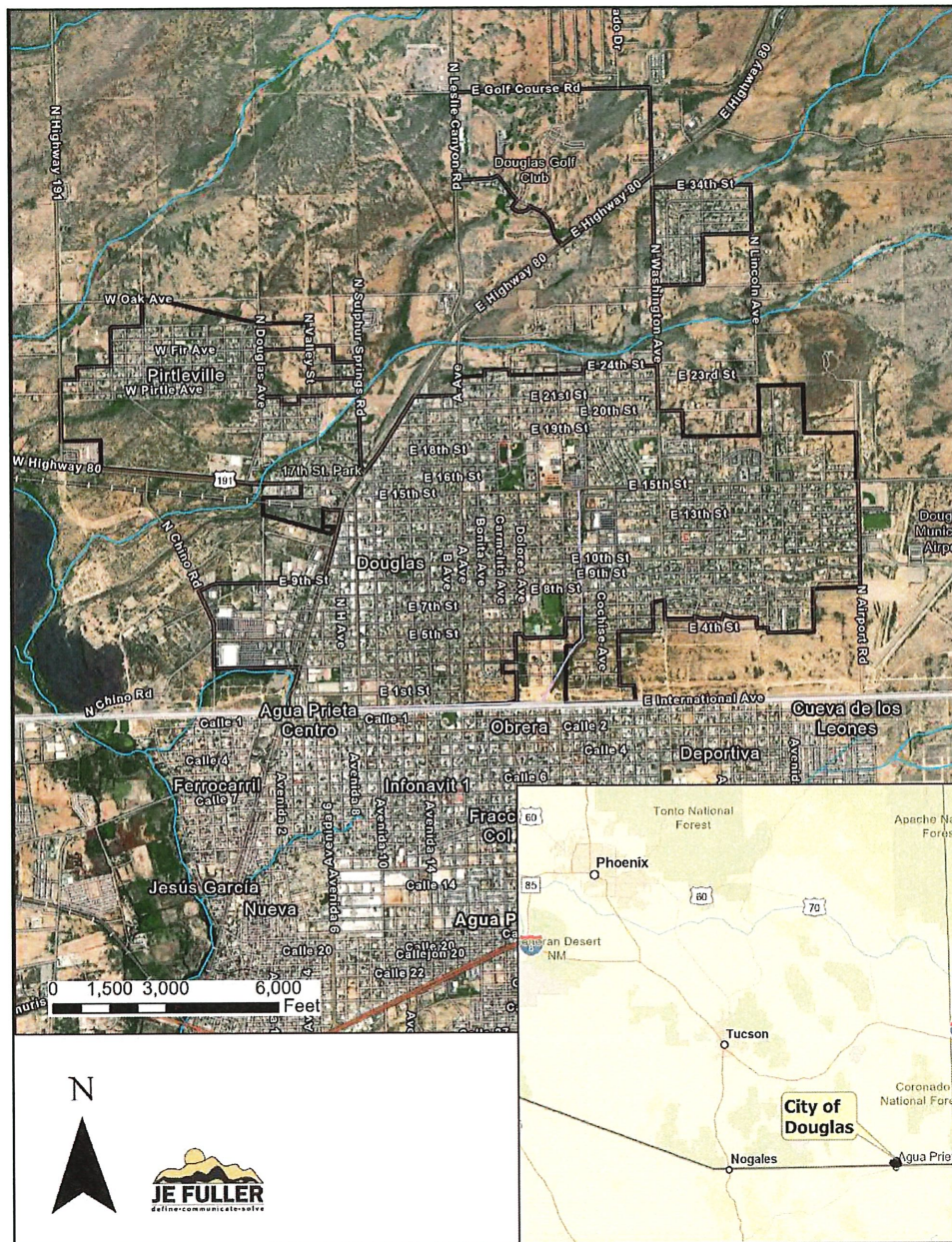


Figure 1-1: City of Douglas and Surrounding Areas

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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

1.4 ORGANIZATION OF THE 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 Douglas's stormwater program. It also outlines the roles and responsibilities of departments within the City of Douglas tasked with administrating, implementing and reviewing the SWMP.

Section 2 Program Management:

The goals of Douglas'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 Douglas's MS4.

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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.

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.

Section 12 References

This section lists the reference used in the creation of the City of Douglas's Stormwater Management Plan.

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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 of Douglas's SWMP, some of the local issues specific to Douglas's 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 STORMWATER SYSTEM

The City's stormwater system is comprised of a system of municipally owned or operated stormwater conveyances consisting of curbs, gutters, inlets, catch basins, underground pipes, retention basins, natural washes and man-made channels. The stormwater system is maintained by the City's Public Works Department. Copies of the current MS4 Infrastructure Maps are provided in **Appendix A**. The map will be revisited annually to ensure it reflects the most recent information.

2.3 LOCAL RECEIVING WATERS

A portion of the City of Douglas's MS4 into Whitewater Draw, located west of the City. Runoff is conveyed to Whitewater Draw via Palm Grove Wash land under Cochise Counties Jurisdiction. Runoff from the southern portion of the City discharges into the Jungle Wash which conveys runoff south into Mexico. Neither Whitewater Wash are listed as an impaired water of the US nor are they considered to be Outstanding Arizona Waters.

2.4 STORMWATER MANAGEMENT RESPONSIBILITIES

Overall responsibility for administering the Permit and SWMP will be within the Public Works Department and under the supervision of the Public Works Director. However, implementing the SWMP will require participation from multiple departments throughout the City. Given that each department/division may be responsible for only a small facet of this SWMP, the department responsible for each BMP is identified in the description in the following sections to help define roles and responsibilities. An organization chart of SWMP responsibilities is presented on [Figure 2-1](#).

The individuals responsible for ensuring based the implementation of the BMPs assigned to each department are listed in [Table 2-1](#).

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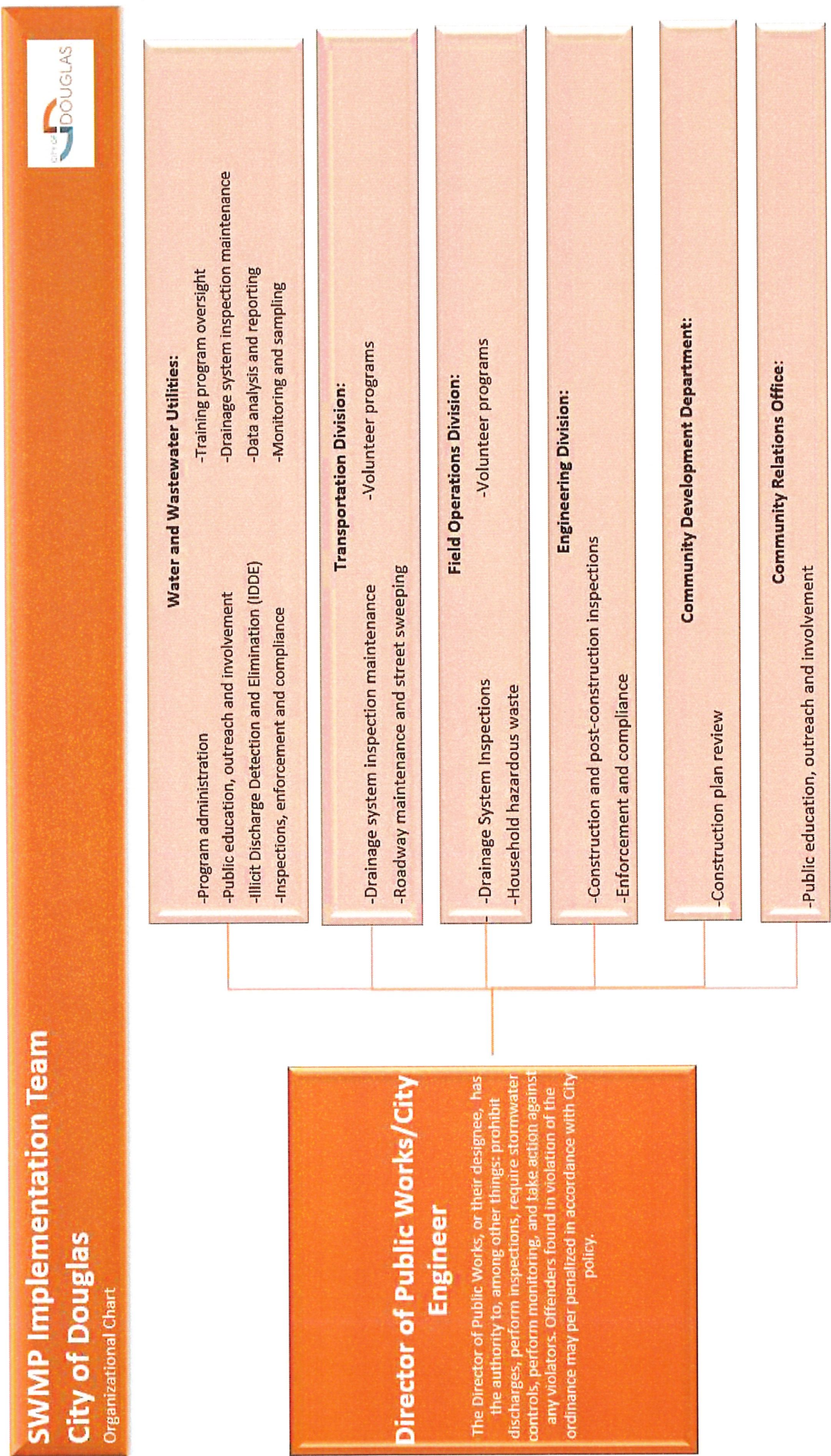


Figure 2-1: SWMP Organizational Chart

Table 2-1: Summary of MCM Responsibilities

Title	Department	MCM Responsibility
Director of Public Works/City Engineer	Public Works	1-6
MS4 Coordinator	Public Works	1-6
City Maintenance Manager	Public Works	3
Code Enforcement Planning and Zoning Technician	Community Development (code enforcement)	3
City Prosecutor	Office of the City Attorney	3,4,5

2.5 LEGAL AUTHORITY

The City of Douglas has established the legal authority to implement and enforce their stormwater program through [The Douglas City Code](#). For the purpose of permit, [Douglas City Code Chapter 15.24.10 Storm Water Discharge](#) will serve as the City's Enforcement Response Plan, until such time it is superseded by a revised City Code or by an adopted Stormwater Enforcement Response Plan (ERP). Given that, the objectives of the Ordinance are:

- To regulate the contribution of pollutants to the City MS4 by stormwater drainage in incorporated urban areas of the City of Douglas.
- To prohibit illicit connections and discharges to the City MS4
- To establish the legal authority to carry out inspections, monitor and analyze stormwater discharges, and to enforce the procedures to ensure compliance with the Ordinance.

The legal authority to enforce the ordinance falls under the duties and responsibilities of the Director of Public Works ([City Code Title 15 Section 15.24.030](#)) and City Attorney ([City Code Title 2 Section 2.08.020](#)). The City Director of Public Works at their discretion may designate other employees to administer, implement and enforce the provisions listed in City Code Title 15.

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2.5.1 Enforcement Requirement Summary

Table 2.2 demonstrates how the City Code adequately provides the procedures listed in Section 3.2 of the Permit.

Table 2-2: Summary of Code References

Permit Requirement	City Code
Prohibit and Eliminate Illicit Discharge	City Code 15.24.040
Control spills and prohibit dumping into the MS4	City Code 15.24.040 City Code 15.24.050
Require compliance	City Code 15.24.050 City Code 15.24.060 City Code 15.24.100
Require owners of Construction Sites, Industrial and Commercial Facilities to minimize discharges using maintenance control measures	City Code 15.24.050 City Code 15.24.060
Right of entry to inspect	City Code 15.24.090
Issue cease and desist orders for illicit discharges and/or require clean up and abatement of such discharges	City Code 15.24.100
Criminal and Civil Penalties for violators	City Code 15.24.100
Identify key personnel responsible for administrating, implementing, and enforcing the stormwater quality programs	City Code 2.08.30 City Code 15.24.050
Identification of Legal Procedures	City Code 2.08.30 City Code 15.24.100
Description of how stormwater related ordinances are to be implemented	City Code 15.24.050 City Code 15.24.060

2.5.2 Enforcement Summary

To comply with the Permit, the City Ordinance outlines a set of escalating enforcement measures the City will follow to enforce its relevant stormwater ordinances. Escalation measures presented in the City Code are briefly described below:

- Inspection – The City of Douglas will notify the owner/operator that staff will be performing a site inspection emphasizing the requirements presented in [City Code 15.24](#) and [AZ Industrial Stormwater Multi-Sector Permit \(MSGP\)](#) and [Construction Activity General Permit \(CGP\)](#). The inspection will be followed with an inspection report that will be provided to the owner operator.
- A Notice of Violation - The Director may issue a written notice of violation to any person who has violated or is in violation of this chapter. Failure to comply with any act required in the notice of violation shall be a separate violation for each day beyond the thirtieth (30th) day following the notice of violation. Nothing in this section shall limit the authority of

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the director to take any action, including emergency actions or any other enforcement action, without first issuing a notice of violation. In appropriate situations the director may notify the person orally either in person or by telephone prior to, and in some cases in lieu of, written notification.

- Consent Order - The Director may enter into consent orders, assurances of voluntary compliance, negotiated settlement agreements or other similar documents establishing an agreement with any person responsible for noncompliance. Such documents will include specific action to be taken by the person to correct the noncompliance within a time period specified by the document, including an identification and description of the best management practices and measures to utilize in implementing the order. Such documents shall have the same force and effect as any other orders issued under this article and shall be judicially enforceable.
- Cease-and-Desist Order - When the director finds that a person has violated, or continues to violate, any provision of this chapter or any related laws or regulations, or that the person's past violations are likely to recur, the Director may issue an order to the person directing them to cease and desist all such violations and direct the person to immediately comply with all requirements; and take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation. Issuance of a cease-and-desist order shall not be a bar against, or a prerequisite for, taking any other action against the person. A person's failure to comply with an order of the water utilities manager issued pursuant to this chapter shall constitute a violation of this chapter.
- Civil Litigation – Should the responsible party fail to comply with the Notice of Violation and or the Cease-and-Desist Order, the Director may issue a civil citation to any person who has violated, or continues to violate, any provision of this chapter or any related laws or regulations. A person who violates any requirement of this chapter or any applicable NPDES or AZPDES stormwater permit condition shall be civilly liable to the city for a sum not to exceed \$2,500.00 per day for each violation.
- Criminal Litigation – Some intentional violations may constitute criminal violations of federal, state, and City law, and that under such circumstances, the Director may seek the assistance of the EPA, the state or the City Prosecutor to commence civil and/or criminal action against any person who violates any requirement of this chapter or any applicable NPDES or AZPDES stormwater permit condition.

A person who willfully or negligently violates any provision of this chapter, or any related laws or regulations shall, upon conviction, shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine not to exceed \$2,500.00 per day for each violation and/or by imprisonment for a period not to exceed six months.

2.6 ANNUAL REVIEW

To evaluate the effectiveness of the SWMP, Douglas Public Works will conduct a yearly review of each best management practice and the SWMP as a whole. The annual review is discussed in detail in Section 10.

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SECTION 3 MCM 1 PUBLIC EDUCATION AND OUTREACH

3.1 OVERVIEW

The City of Douglas (Douglas) will implement a public education and outreach program that will distribute educational materials and provide outreach to the small municipal separate storm sewer systems (MS4) community. This program is required by Section 6.1 of the General Permit [AZG2021-002](#). 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 system.

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

- General Public (private citizens)
- Home and Landowners
- Schools

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

- Developers/ Contractors/Property Managers
- Homeowner and Neighborhood Associations
- Construction Site Operators and Supervisors
- Commercial and Industrial Businesses and their owners

In targeting the different sectors of the public, MCM 1 will strive for the maximum value and impact. According to the US Census Bureau, the general public demographics for Douglas include:

- The average household size is 2.9 persons per household.
- 12.1% of residents over the age of 25 have a bachelor's degree or higher.
- The median household income is \$39,479.
- 83% of the population is Hispanic or Latino, while White makes up 12% of the population.
- 83.3% of households have a computer with about 77% having an internet connection.

In providing the demographics noted above implementation of MCM-1 can tailor both the message relayed and the material distributed to the target audience. In so doing, the public is better informed about the importance of stormwater quality, and as a result, is more likely to support the efforts of the City. Methods will be developed to evaluate the effectiveness of the educational and outreach programs and tied to the defined goals of the program.

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3.2 SELECTED BMPs

Douglas has evaluated the public education and outreach 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 3-1](#) with a description of each BMP provided in this section. Detailed BMP information is provided in **Appendix B**.

TABLE 3-1 – SUMMARY OF MCM 1 BMPs

BMP	Description
MCM 1.1	Educational Materials (Businesses)
MCM 1.2	Educational Materials (General Public)
MCM 1.3	Educational Events
MCM 1.4	Stormwater Webpage
MCM 1.5	Community Event Calendar
MCM 1.6	Stenciling Program

MCM 1.1 EDUCATIONAL MATERIAL (BUSINESS COMMUNITY)

Description: Douglas staff will promote an education program that increases the business communities knowledge of stormwater quality and stormwater pollution prevention.

Responsible Department(s):

Douglas Public Works Department
Douglas Community Development Department

Measurable Goals: Douglas will develop, distribute and make available electronically, educational materials that focus on stormwater quality and pollution prevention. Brochures have been created for various business communities including: development, construction site operators, industrial and commercial facility operators, restaurant owners, vendors and other business owners. Brochures are available on the [stormwater webpage](#) and in printed form at the Public Works Office. Additional educational and stormwater related resource material will be provided in the form of on-line links.

Materials will be available throughout the year on the website and at the Public Works Office, and will be distributed at public events (MCM 1.3). Materials distributed to the public will be tracked. The materials will also be annually evaluated and when necessary modified. The types and quantities of education materials distributed will be summarized as part of the Annual Report. The number of materials accessed electronically will also be tracked and recorded. Revisions to the education material will also be documented as well any feedback regarding their effectiveness.

Target Group: Restaurants, commercial/industrial facilities, construction site operators, development communities and other business owners. 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

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contained, the target group who received the message, and how it was distributed will be tracked. Any revisions to the educational materials will be documented. The documented measures will be reported as of the Annual Report during each permit year.

MCM 1.2 EDUCATIONAL MATERIALS (GENERAL PUBLIC)

Description: Douglas staff will promote an education program that increases the public's knowledge of stormwater quality and stormwater pollution prevention.

Responsible Department(s):

Douglas Public Works Department
Douglas Community Development Department

Measurable Goals: Douglas will develop, distribute and make available electronically, educational materials that focus on stormwater quality and pollution prevention. Brochures have been created for various audiences including the general public, residential communities, homeowners and visitors. Brochures are available on the [stormwater webpage](#) and in printed form at the Public Works Office. Additional educational and stormwater related resource material will be provided in the form of on-line links.

Materials will be available throughout the year on the website and at the Public Works Office, and will be distributed at public events (MCM 1.3). Materials distributed to the public will be tracked. The materials will also be annually evaluated and when necessary modified. The types and quantities of education materials distributed will be summarized as part of the Annual Report. The number of materials accessed electronically will also be tracked and recorded. Revisions to the education material will also be documented as well any feedback regarding their effectiveness.

Target Group: General public, residential communities, homeowner's associations, property management companies, and visitors. 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, the target group who received the message, and how it was distributed will be tracked. Any revisions to the educational materials will be documented. The documented measures will be reported as of the Annual Report during each permit year.

MCM 1.3 EDUCATIONAL EVENTS

Description: Douglas staff 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 and MCM 1.2.

Responsible Department(s):

Douglas Public Works Department

Measurable Goals: Douglas staff will participate in a minimum of one (1) educational event during the permit year, such as the Cochise County Fair, to hand out educational materials and inform the public on other stormwater related topics. The number of events, name/type of event, total number of event attendees, total number of persons meeting with staff persons will be documented.

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Target Group: Residents, tourists, residential communities, homeowners associations, contractors/developers, business owners, and commercial and industrial facilities.

Metrics: The number of events, name/type of event, total number of event attendees, and total number of persons meeting with staff persons will be reported as part of the Annual Report during each permit year.

MCM 1.4 STORMWATER WEBPAGE

Description: Douglas staff has created and will maintain a webpage dedicated to promoting education and communication on stormwater related topics ([City of Douglas Stormwater Webpage](#)).

Responsible Department(s):

Douglas Public Works Department
Douglas GIS Department

Measurable Goals: Douglas's stormwater webpage will be reviewed and/or periodically updated to provide information on stormwater related topics. The City will conduct annual research to ensure that all disseminated information is up-to-date and accurate. The webpage will contain an electronic copy of the Stormwater Management Plan, the City's Notice of Intent (NOI) to discharge, and the Annual Report as required by ADEQ. The webpage will provide the general public with the ability to request a stormwater presentation and will include educational material developed in MCM 1.1. The website contains information about stormwater quality concerns and how the public can help, as well as contact information for the City Engineer to address any stormwater related comments or questions. 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 documented. Updates made to the website during the permit year will be documented.

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

Metrics: Number of annual website visitors, the number of total page views, number of material downloads, the number of complaints received, and the number and date of website updates will be tracked. The results will be reported within the Annual Report during each permit year. Any revisions to the webpage during the permit year will also be discussed.

MCM 1.5 COMMUNITY EVENTS CALENDAR

Description: The City of Douglas will maintain a calendar of community events that can be used to identify opportunities for public outreach or public education.

Responsible Department:

Douglas Public Works Department
Douglas GIS Department

Measurable Goals: Douglas staff will maintain the community calendar so that the stormwater department can identify events for public outreach and education. The public will be able to provide input for adding events to the calendar. This information will be included in the Annual Report.

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

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Metrics: The number of events added to the calendar will be tracked along with related topics and who submitted the event. This information will be included in the Annual Report during each permit year.

MCM 1.6 STENCILING PROGRAM

Description: The City of Douglas will install and maintain a series of catch basin markers and stenciled indicators on storm sewer inlets to identify the MS4 storm sewer and promote stormwater quality.

Responsible Department:

Douglas Public Works Department

Measurable Goals: Douglas staff will install and maintain signage throughout the City that promote stormwater quality. Signage will be placed at storm drain inlets and catch basins. The number of signs installed and replaced/repared each permit year will be recorded in the Annual Report.

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

Metrics: The number of signs and placards installed and repaired/replaced per year will be tracked, along with the location of the signage. This information will be included in the Annual Report during each permit year.

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SECTION 4 MCM 2 PUBLIC PARTICIPATION AND INVOLVEMENT

4.1 OVERVIEW

As an extension of MCM 1, the City of Douglas will implement a public participation and involvement program that provides opportunities to engage the public and promote stormwater quality within the MS4 (Section 6.2 of the General Permit [AZG2021-002](#)). Douglas also recognizes that the public's involvement in the process of developing the City's SWMP is crucial for developing support by the citizenry and is ultimately tied to the success of the SWMP. To that end Douglas will encourage the public to take a vested interest in stormwater quality program by being an active participant in the development of the city's SWMP.

Stormwater meetings and events will be publicized and open to the public to promote and encourage participation.

4.2 SELECTED BMPs

In meeting the requirements stated in Section 6.2 and understanding their community, the City of Douglas has developed a series of best management practices for implementation. The selected BMPs are summarized in [Table 4-1](#) with a description of each BMP provided in this section. Detailed BMP information is provided in [Appendix C](#).

TABLE 4-1 - SUMMARY OF MCM 2 BMPs

BMP	Description
MCM 2.1	Community Hotline
MCM 2.2	Community Email
MCM 2.3	Community Event Calendar
MCM 2.4	Volunteer Opportunities
MCM 2.5	Stormwater Webpage
MCM 2.6	Stenciling Program
MCM 2.7	Local Outreach (Pet Waste Program)
MCM 2.8	Local Outreach (SWMP Public Comment/Review)

MCM 2.1 COMMUNITY HOTLINE

Description: To promote Public Participation and Involvement, the City of Douglas will make available, through its website a phone number such that the general public can use to report illicit discharges, or make general stormwater management plan inquiries.

Responsible Department:

Douglas Public Works Department

Measurable Goals: Douglas will provide a phone number on the stormwater website to allow the general public to inquire about the City's SWMP, including, but

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not limited to general information, reporting illicit discharges, and answering other SWMP related questions. The number of calls and the type of inquiry (violation reporting or general question) received will be tracked and documented.

Target Group: General Public

Metrics: The total number of calls received through the hotline will be reported on the Annual Report. The types of inquiries will be summarized and reported.

MCM 2.2 COMMUNITY EMAIL

Description: To promote Public Participation and Involvement, the City of Douglas will provide a link on its [stormwater webpage](#) to an email address such that the general public can use it to report illicit discharges or make general stormwater management plan inquiries.

Responsible Department:

Douglas Public Works Department

Measurable Goals: An email address will be provided to the general public to allow for stormwater related inquiries and to report illicit discharges. The number of emails and the type of inquiry (violation reporting or general question) received will be tracked and documented.

Target Group: General Public

Metrics: The total number of emails received through the community email will be reported on the Annual Report. The types of inquiries will be summarized and reported.

MCM 2.3 COMMUNITY EVENTS CALENDAR

Description: The City of Douglas will maintain a calendar of community events that can be used to identify opportunities for public outreach or public education.

Responsible Department:

Douglas Public Works Department
Douglas GIS Department

Measurable Goals: Douglas staff will maintain the community calendar so that the stormwater department can identify events for public outreach and education. The public will be able to provide input for adding events to the calendar. This information will be included in the Annual Report.

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

Metrics: The number of events added to the calendar will be tracked along with related topics and who submitted the event. This information will be included in the Annual Report during each permit year.

MCM 2.4 VOLUNTEER OPPORTUNITIES

Description: The City of Douglas, in partnership with the local community development programs, will promote clean up opportunities in and around the city streets and drainageways.

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Responsible Department:

Douglas Public Works Department

Measurable Goals: The City of Douglas, in partnership with the local community development programs, will promote a minimum of two (2) clean up opportunities in and around the city streets and drainageways. The number of clean-up events and the number of participants will be tracked, along with the number of attendees at the event. This information will be recorded in the Annual Report.

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

Metrics: The number of clean-up events and the number of participants will be tracked, along with the number of attendees at the event. This information will be recorded in the Annual Report.

MCM 2.5 STORMWATER WEBPAGE

Description: Douglas staff has created and will maintain a dedicated [stormwater webpage](#) to promote education and communication on stormwater related topics.

Responsible Department(s):

Douglas Public Works Department
Douglas GIS Department

Measurable Goals: Douglas's stormwater webpage will be reviewed and/or periodically updated to provide information on stormwater related topics. The webpage will contain an electronic copy of the Stormwater Management Plan, the City's Notice of Intent (NOI) to discharge and the Annual Report as required by ADEQ. The webpage will provide the general public with the ability to request a stormwater presentation or have a post-construction stormwater pollution prevention plan completed. Educational material developed in MCM 1.1 are included on the webpage as well. The website also contains a phone number, email address and the "Report It" tool to allow the general public to make general inquiries and report stormwater violations. 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 documented.

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. The results will be reported within the Annual Report during each permit year. Any revisions to the webpage during the permit year will also be discussed.

MCM 2.6 STENCILING PROGRAM

Description: The City of Douglas will install and maintain a series of catch basin markers and stenciled indicators on storm sewer inlets to identify the MS4 storm sewer and promote stormwater quality.

Responsible Department:

Douglas Public Works Department

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Measurable Goals: Douglas staff will install and maintain signage throughout the City that promote stormwater quality. Signage will be placed at storm drain inlets and catch basins. The number of signs installed and replaced/repared each permit year will be recorded in the Annual Report.

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

Metrics: The number of signs and placards installed and repaired/replaced per year will be tracked, along with the location of the signage. This information will be included in the Annual Report during each permit year.

MCM 2.7 LOCAL OUTREACH (PET WASTE PROGRAM)

Description: The City of Douglas will develop a program to encourage the self-policing of pet waste through the installation and maintenance of pet waste stations and increased community awareness.

Responsible Department:

Douglas Public Works Department and Parks Department

Measurable Goals: Douglas staff will install and maintain pet waste stations through the city to promote stormwater quality. Information will be distributed during educational events (MCM 1.3) and made available on the website (MCM 1.4). During the year, each pet station will be inspected one time and maintained as necessary. The number of new installations and repaired/replaced stations will be documented.

Target Group: General Public

Metrics: The number of new pet waste stations installed will be documented, as well as the number of stations repaired/replaced throughout the year. This information will be documented in the Annual Report for each permitted year.

MCM 2.8 LOCAL OUTREACH (SWMP PUBLIC COMMENT/REVIEW)

Description: To promote Public Participation and Involvement, Douglas staff will develop a local outreach program for soliciting, collecting, and processing public input regarding the City's Stormwater Management Program.

Responsible Department:

Douglas Public Works Department

Measurable Goals: Once per year, Douglas staff will solicit comments from the public on the SWMP. Acknowledgement of the receipt of comments will be sent to the participant and where appropriate, revisions will be made to the SWMP. The number of comments received and the revisions made to the SWMP as a result will be documented.

Target Group: General Public

Metrics: The number of comments received will be documented. The number and type of revisions made to the SWMP as a result of the comments will also be documented in the Annual Report during each permit year.

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

5.1 OVERVIEW

The third mandated minimum control measure (MCM 3) includes developing, implementing, evaluating and updating a program to detect and eliminate illicit and non-stormwater discharges to the small municipal separate storm sewer systems (MS4) as required in Section 6.3 of the General Permit [AZG2021-002](#). This program is commonly referred to as an Illicit Discharge Detection and Elimination program, or IDDE.

The objectives of the IDDE program are to systematically find and eliminate sources of non-stormwater discharges to the (MS4) and to implement procedures to prevent illicit connections and discharges. The main components of the program used in meeting these objectives are:

- Outfall and storm sewer system inventorying
- Visual Dry Weather Outfall Monitoring of outfalls locations
- Visual Wet Weather Discharge Monitoring of outfalls locations
- Follow-up monitoring/inspections at outfalls points where identified or suspected illicit discharges were observed.
- Tracking sources of potential illicit discharges
- Legal Enforcement of the IDDE Program

As part of the IDDE Program, standardized forms will be used by the City of Douglas staff to document the Visual Monitoring efforts and IDDE Investigations. Templates are provided in **Appendix L** of this report. Completed forms will also be stored in Appendix L. In addition, Douglas Public Works Department will annually evaluate and will update the IDDE program as necessary to comply with the revised General Permit. Ongoing staff training 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.

5.2 ALLOWABLE NON-STORMWATER DISCHARGES

Non-stormwater discharges allowed under [General Permit No. AZG2021-002](#), Section 6.6 that are not considered “illicit” include:

- water line flushing
- landscape irrigation
- diverted stream flows
- rising ground waters
- uncontaminated groundwater infiltration
- uncontaminated pumped ground water
- discharges from potable water sources
- foundation drains
- air conditioning condensate
- irrigation water
- springs
- water from crawl space pumps
- footing drains
- lawn watering
- individual residential car washing
- discharges from riparian habitats and wetlands
- dechlorinated swimming pool discharges
- street wash water
- discharge or flows from emergency firefighting activities

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Douglas Public Works has reviewed the above discharges and determined that they are not significant contributors of pollutants to waters of the United States. All discharges to and from the MS4, other than those named above and stormwater discharges, will be treated as potential illicit discharges until identified otherwise, as provided in [Chapter 15.24 of the Douglas City Code](#).

5.3 OUTFALL LOCATIONS

Douglas has identified five (5) outfalls within its MS4 area. The runoff from two (2) of the outfalls (Outfall 1 and Outfall 2) discharge into small drainage ways that discharge into a tributary to the Jungle Wash at the south boundary of the City. A third outfall (Outfall 3) discharges into Jungle Wash located at the western edge of the City near the Douglas Port of Entry. A fourth outfall is located within Airport Wash which discharges the tributary to Jungle Wash. The fifth outfall is located at Apple White Wash which ties into the MS4 for Cochise County. A list of the identified outfalls is presented in [Table 5-1](#). A map depicting the locations of the outfalls is presented on [Figure 5-1](#). In compliance with Section 6.3.7.b. of the General Permit, the City will visually monitor a minimum of 20% of the outfalls annually.

TABLE 5-1 - SUMMARY OF IDENTIFIED OUTFALL LOCATIONS

No.	Outfall ID	Description	Longitude	Latitude
1	Outfall 1	Rose Wash at 9 th St. and Rose Ave.	-109.5352	31.3432
2	Outfall 2	Grate at A Ave and 3 rd St.	-109.5456	31.3377
3	Outfall 3	Jungle Wash at Pan American Ave.	-109.5600	31.3367
4	Outfall 4	Airport Wash at 13 th St and Airport Rd.	-109.5113	31.3475
5	Outfall 5	Apple White Wash at Apple White D. and Louis Ave.	-109.5346	31.3535

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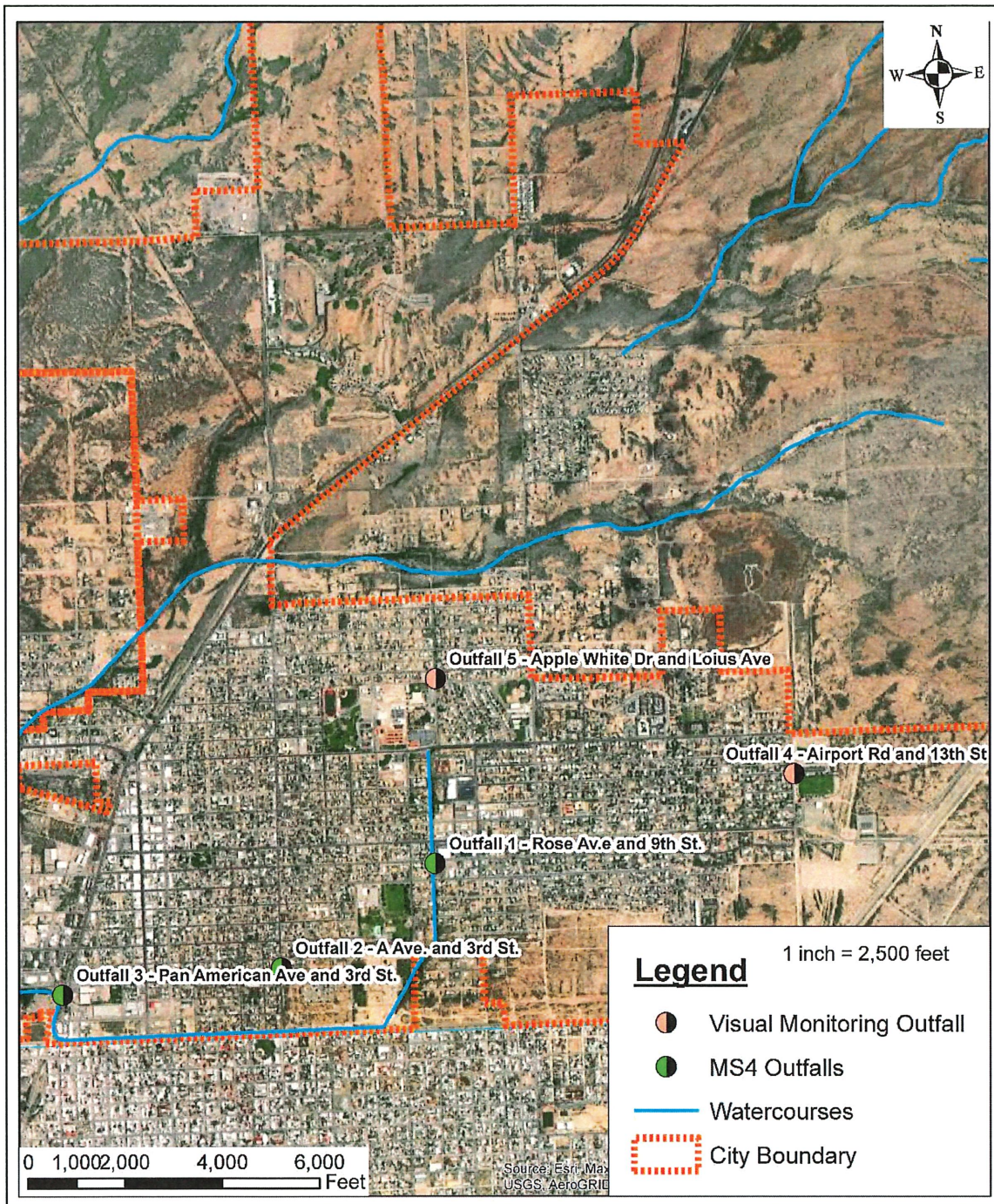


Figure 5-1: Identified Outfall Locations

5.4 SELECTED BMPs

The City of Douglas (Douglas) has selected a series of best management practices (BMPs) that are intended to meet the requirements specified in Section 6.3 of the Permit. A list of the BMPs is presented in [Table 5-2](#). While the BMPs used to comply with the requirements are explained in detail in **Appendix D**, a brief summary of each is provided below.

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TABLE 5-2 - SUMMARY OF MCM 3 BMPs

BMP	Description
MCM 3.1	Storm Sewer System Mapping
MCM 3.2	Written Enforcement Procedures and Legal Authority Review
MCM 3.3	Visual Outfall Monitoring (Dry Weather)
MCM 3.4	Visual Outfall Monitoring (Wet Weather)
MCM 3.5	Illicit Discharge Identification and Elimination
MCM 3.6	Unpermitted Facilities
MCM 3.7	IDDE Staff Training
MCM 3.8	Illicit Discharge On-line Reporting

MCM 3.1 STORM SEWER SYSTEM MAPPING

Description: Douglas will maintain and update the storm sewer system map containing all MS4 infrastructure to reflect new public and private structures constructed during the permit year to use as reference during inspections, and to help identify and eliminate illicit discharges.

Responsible Department:

Douglas Public Works Department
Information Technology GIS Division

Measurable Goals: GIS features reflecting the new infrastructure, will be added into Douglas's existing storm sewer system map following final inspections and submittal of As-Built information. Map of the current MS4 infrastructure are provided in **Appendix A**. During the permit year, features may be added and/or revised. As part of the annual review of the SWMP, the map will be evaluated to ensure it reflects the added drainage infrastructure.

Metrics: Number of structures added will be documented on the Annual Report for each permitted year.

MCM 3.2 WRITTEN ENFORCEMENT PROCEDURES AND LEGAL AUTHORITY REVIEW

Description: Douglas will implement proper enforcement procedures and actions through the preparation and adoption of ordinances and city codes.

Responsible Department:

Douglas Public Works Department
City of Douglas Office of the City Attorney

Measurable Goals: Assign staff from the Public Works Department, Community Development Department and City Attorney's Office to Director to review the [Title 15 of the City of Douglas Municipal Code](#), to ensure compliance with the stormwater enforcement requirements set forth in Section 3.0 and Section 6.3.2 of the [General Permit AZG2021-002](#). Any revisions necessary to the Codes or the Ordinances will be presented to the City Attorney's Office. It is expected that the any revision will require City Council action. Any revisions made to the City Code will be documented and updated in the SWMP.

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Metrics: The occurrence of review will be documented and noted in the Annual Report. Any revisions to the Code and/or SWMP will be summarized.

MCM 3.3 VISUAL OUTFALL MONITORING (DRY WEATHER)

Description: Douglas staff will conduct an annual monitoring of the outfalls during dry weather periods with the intent of detecting and eliminating potential illicit discharges.

Responsible Department:

Douglas Public Works Department

Measurable Goals: Annual dry-weather monitoring of outfalls will occur throughout the year with the goal of monitoring all five (5) identified outfalls once per permit year. Additional monitoring may occur in response to a filed complaint. The dry-weather monitoring efforts will be documented using a standardized form created as part of the SMWP (Appendix L).

Metrics: The number of visual monitoring efforts (routine, complaint response, or follow-up) will be documented in the Annual Report for each permitted year.

MCM 3.4 VISUAL OUTFALL MONITORING (WET WEATHER)

Description: Douglas staff will conduct an annual monitoring of the outfalls during wet-weather periods with the intent of detecting and eliminating illicit discharges and qualitatively assessing storm water quality.

Responsible Department:

Douglas Public Works Department

Measurable Goals: Annual wet-weather monitoring of outfalls will occur throughout the year with the goal of monitoring all five (5) identified outfalls once per permit year. Wet weather monitoring should occur during the first flush of a qualifying storm event when possible (see Sections 9.4 for description of a qualifying storm event). Samples will be inspected for color, odor, clarity, floatables, debris, and sheen. Visual wet weather monitoring may occur at the same time as active sampling used for analytical monitoring. Additional monitoring may occur in response to a filed complaint. The wet-weather monitoring efforts will be documented using a standardized form created as part of the SMWP (Appendix L).

Metrics: The number of visual monitoring efforts (routine, complaint response, or follow-up) will be documented in the Annual Report once per permitted year.

MCM 3.5 ILLICIT DISCHARGE IDENTIFICATION AND ELIMINATION

Description: Douglas will implement a process to detect and eliminate illicite discharges and unpermitted connections to the MS4.

Responsible Department:

Douglas Public Works Department

Measurable Goals: Douglas staff will investigate all reports of potential illicit discharges or storm water quality violations that were brought to the attention of staff during the permit year. The investigations will be documented using a standardized form created as part of the SMWP (Appendix L).

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Metrics: The number of inspections will be documented in the Annual Report for the permit year. Follow-up actions will be summarized and provided as part of the Annual Report documentation.

MCM 3.6 UNPERMITTED FACILITIES

Description: Douglas staff will identify unpermitted facilities and/or activities that are located in or discharge to the MS4.

Responsible Department:

Douglas Public Works Department
Douglas City Clerk's Office

Measurable Goals: Douglas staff will audit qualified construction sites during the permit year to verify they have a Construction General Permit (CGP). Audit will occur during site inspections and using the ADEQ's search engine. Douglas staff will audit new industrial facilities during the process of obtaining a business license to determine if the facilities are engaged in an industrial activity and would need coverage under a non-mining, multi-sector, general permit (MSGP). Douglas staff will also cross-reference suspected unpermitted facilities with ADEQ's megasearch database. The number of construction sites and industrial sites found to be without a CGP or a MSGP will be tracked throughout the year. This information will be documented on the Annual Report for a given permit year.

Metrics: The number of construction sites audited will be tracked through the year. The number of potential industrial facilities will be tracked throughout the year. The number of construction sites and industrial sites found to be without a CGP or a MSGP general permit will be documented. The information collected will be documented on the Annual Report for the given permit year.

MCM 3.7 IDDE STAFF TRAINING

Description: Douglas Public Works Department will implement an annual program to train staff on the IDDE Program.

Responsible Department:

Douglas Public Works Department

Measurable Goals: During the course of the year, Douglas staff, who have been tasked with implementing an aspect of the SWMP, will receive a minimum of one SWMP/IDDE training session. Training may be conducted in-house by qualified personnel or by an outside 3rd party. In-house training will be tracked using a standardized form provided in Appendix L of this document. Third-party training will be tracked through the receipt of training certificates.

Metrics: The number of attendees trained, and a summary of the training topics will be documented on the Annual Report for the given permit year.

MCM 3.8 ILLICIT DISCHARGE ON-LINE REPORTING

Description: Douglas staff will develop and maintain measures that the public can use to report a potential illicit discharge or a stormwater violation.

Responsible Department:

Douglas Public Works Department
Douglas GIS Department

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Measurable Goals: The [stormwater webpage](#) will contain an on-line reporting form, a hotline number and an email address that will allow the public the means to report potential illicit discharges or a stormwater violation. Access to the website will be available through the permit term. All reports will be investigated in accordance with MCM 3.5.

Metrics: The number of potential illicit discharge/stormwater violations reported, and the means used for the report will be documented in the Annual Report for the given permit year.

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SECTION 6 MCM 4 CONSTRUCTION ACTIVITY STORMWATER RUNOFF MANAGEMENT CONTROL

6.1 OVERVIEW

Section 6.4 of the General Permit [AZG2021-002](#) (Permit) outlines the requirements for the implementation of control measures to prevent illicit discharges and pollutants from stormwater runoff generated from construction activities from being discharged into The City of Douglas's (Douglas) small municipal separate storm sewer systems (MS4). To comply with the requirements presented in Section 6.4, the SWMP must include the following minimum control measures (MCM).

- 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:
 - Phase of construction
 - Proximity to an impaired, not-attaining water or Outstanding Arizona Water
 - Size of the construction activity (acreage disturbed)
 - 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.

In addition to the above, Douglas's SWMP provides education materials to contractors and construction personnel on erosion and sediment control best management practices. In addition, as part of the MCM 2 (SWMP Section 4) the public is allowed to submit information and considerations for inclusion in Construction Activity Stormwater Runoff Control during the annual review period.

6.2 LEGAL AUTHORITY

The requirement for construction sites to comply with rules and regulations associated with the AZPDES is presented in [Douglas City Code Article 15.24.060](#).

6.3 INSPECTION FREQUENCY

Douglas inspectors will inspect 100% of the construction sites and construction activities. The frequency of the inspections is based on the requirements presented

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in Section 6.4.f of the Permit as listed below. Note: More frequent inspections can be scheduled for sites and operators that have a history of non-compliance. Compliance during the permit term shall be achieved by performing at least 80% of the scheduled inspections.

GOAL FOR PRIVATE DEVELOPMENT PROJECTS:

For sites disturbing 1 acre or more and within ¼ 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

GOAL FOR CAPITAL IMPROVEMENT PROJECTS (CIP):

For sites disturbing 1 acre or more and within ¼ 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

6.4 SELECTED BMPS

In order to meet the requirements in Section 6.4, the City of Douglas (City) has evaluated the construction activity stormwater runoff control component of their stormwater program and has identified best management practices (BMPs) to better educate contractors and construction site operators of the importance of preventing stormwater pollution and to inspect construction sites and construction activities to ensure compliance with the City Codes and Ordinances. The selected BMPs are listed in Table 6-1 with a summary of each BMP provided in this section. Detailed BMP information is provided in **Appendix E**.

TABLE 6-1 - SUMMARY OF MCM 4 BMPS

BMP	Description
MCM 4.1	Construction Site Inventory
MCM 4.2	Site Plan Review
MCM 4.3	Staff Training
MCM 4.4	Contractor and Operator Educational Materials
MCM 4.5	Inspection and Enforcement Procedures

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MCM 4.1 CONSTRUCTION INVENTORY

Description: Douglas staff will prepare and maintain an up-to-date inventory of active construction sites and construction activities located within the city limits.

Responsible Department:

Douglas Public Works Department
Douglas Community Development
GIS Department

Measurable Goals: In a cooperative effort, the Douglas Public Works Department and the Douglas Community Development will develop and maintain a spreadsheet or database to keep 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 or sale if the larger common plan will ultimately disturb greater than one (1) acre. All construction projects will be entered into the spreadsheet/database managed by the Douglas Public Works Department for tracking. Construction sites will no longer be tracked once the final inspection has been completed.

Metrics: The number of active construction sites during the permit year will be documented in the Annual Report.

MCM 4.2 SITE PLAN REVIEW

Description: Douglas staff will develop and implement a plan review process for reviewing civil plans to ensure compliance with the ADEQ's AZPDES CGP and Douglas City Code.

Responsible Department:

Douglas Public Works Department
Douglas Community Development

Measurable Goals: Develop and implement a plan review process to review civil plans to ensure compliance with [ADEQ's AZPDES CGP](#), [General Permit AZGS2021](#), and [Douglas Storm Water Ordinance](#). The number of Stormwater Pollution Prevention Plans (SWPPP) and Erosion Control Plans (ECP) submitted throughout the year will be documented.

Metrics: The number of SWPPPs received will be tracked. The number of ECPs reviewed will be tracked. The data will be documented in the Annual Report for each permitted year.

MCM 4.3 CONTRACTOR AND OPERATOR EDUCATION MATERIALS

Description: Douglas staff will develop/catalogue and distribute educational materials with specific messaging for contractors and construction site operators.

Responsible Department:

Douglas Public Works Department
Douglas Community Development

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Measurable Goals: Educational Materials will be available throughout the year through the [stormwater web page](#). Material will be distributed to contractors and construction site operators as part of the plan review process.

Metrics: The number of materials distributed or accessed during the permit year will be documented in the Annual Report for each permitted year.

MCM 4.4 STAFF TRAINING

Description: The City of Douglas will implement a training program that provides training opportunities for staff. Training may be conducted in-house by qualified personnel or through a 3rd party vendor.

Responsible Department:

Douglas Public Works Department
Douglas Community Development

Measurable Goals: One hundred percent (100%) of the staff involved in reviewing civil plans and conducting stormwater quality specific inspections on construction sites will be trained on an annual basis throughout the permit term. The number of attendees trained will be documented using the form provided in **Appendix L** or through participation certificates issued by the 3rd party.

Metrics: The number of persons trained will be tracked. A summary of the training topics will be tracked. The data used to track the training program will be documented as part of the Annual Report for the permit year.

MCM 4.5 INSPECTIONS AND ENFORCEMENT PROCEDURES

Description: Douglas staff will conduct inspections of construction sites and construction activities at frequencies specified in **Section 6.3**.

Responsible Department:

Douglas Public Works Department
Douglas Community Development

Measurable Goals: Inspections will be conducted on 100% of the construction sites active during the permit year with the goal of achieving at least 80% of the scheduled inspections annually. The inspections will be documented using the form provided in **Appendix L**. See **Appendix E** for detailed inspection and enforcement procedures.

Metrics: The number of sites inspected, and the frequency of the inspections will be documented as part of the Annual Report for the permit year.

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

7.1 OVERVIEW

Section 6.5 of the General Permit [AZG2021-002](#) (Permit) outlines the requirements for minimum control measures (MCM) used in developing, implementing, and enforcing a program that addresses post-construction stormwater stemming from new development and redevelopment projects. It is the intent of the MCM to prevent stormwater pollutants generated by private sector and public sector facilities from being discharged into the City of Douglas's (Douglas) small municipal separate storm sewer systems (MS4). The program will include;

- An ordinance or other regulatory mechanism(s) that requires owners of new development and redevelopment that discharge into the MS4 to design, implement, and maintain post-construction stormwater controls to reduce or eliminate the discharge of pollutants from their site.
- An inventory of post-construction stormwater control measures installed and implemented at both public and private new development or redevelopment sites.
- Processes to review civil plans to evaluate and approve post-construction stormwater controls.
- Processes, procedures, or provisions for inspecting post-construction stormwater BMPs to ensure their long-term operation and maintenance.

In addition to the above, Douglas will provide staff training for both reviewers and inspectors and provide materials to the site operators and the general public to educate them on stormwater quality and the reduction of pollutants into the MS4.

7.2 LEGAL AUTHORITY

The requirement for construction sites to comply with rules and regulations associated with the AZPDES is presented in [Douglas City Code Article 15.24.090](#).

7.3 SELECTED BMPs

Upon evaluating its post-construction stormwater management program in new development and redevelopment, Douglas has selected the following BMPs to address post-construction stormwater (Table 7-1). A summary description of each BMP is provided in this section. Detailed BMP information is provided in **Appendix F**.

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TABLE 7-1 - SUMMARY OF MCM 5 BMPs

BMP	Description
MCM 5.1	Stormwater Control Measures Inventory
MCM 5.2	Site Plan Review
MCM 5.3	Inspection and Enforcement Procedures
MCM 5.4	Staff Training
MCM 5.5	SWPPP/ECP for Capital Improvement Projects
MCM 5.6	Post-Construction Education Materials

MCM 5.1 STORMWATER CONTROL MEASURES INVENTORY

Description: Douglas staff will prepare and maintain an up-to-date inventory of new development and redeveloped projects completed during the permit year.

Responsible Department:

Police and Fire Department, Douglas Community Development, Public Works

Measurable Goals: In a cooperative effort, the Douglas Public Works Department and the Douglas Community Development will develop and maintain a spreadsheet or database to enter new development and redeveloped projects such that post-construction stormwater control measures can be inventoried and scheduled for inspections. The number of sites will be tracked and documented.

Metrics: Number of new development and redevelopment projects completed during the permit year will be documented on the Annual Report for each permitted year.

MCM 5.2 SITE PLAN REVIEW

Description: Douglas staff will develop and implement a plan review process for reviewing civil plans to ensure compliance with the ADEQ's AZPDES CGP and Douglas City Code requirements for ensuring post-construction stormwater quality.

Responsible Department:

Douglas Public Works Department
Douglas Community Development

Measurable Goals: Develop and implement a plan review process to review civil plans to ensure compliance with [ADEQ's AZPES CGP](#), [General Permit AZGS2021](#), and [Douglas Storm Water Ordinance](#). The number of plan reviews will be tracked and documented.

Metrics: Number of plan reviews will be documented in the Annual Report.

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MCM 5.3 INSPECTIONS AND ENFORCEMENT PROCEDURES

Description: Douglas staff will conduct inspections of publicly and, as necessary, privately owned and maintained post-construction stormwater control measures associated with new development and redevelopment projects in order to reduce pollutants in stormwater runoff.

Responsible Department:

Douglas Public Works Department
Douglas Community Development

Measurable Goals: Inspections will be conducted on a least 20% of publicly owned and maintained stormwater control measures annually. Inspections of privately owned and operated facilities will be facilitated from reports of stormwater quality violations or reports of potential illicit discharges. One-hundred percent (100%) of these reports will be inspected. The inspections will be documented using the form provided in **Appendix L**.

Metrics: The number of inspections of publicly owned and operated stormwater control measures will be tracked. The number of inspections of privately owned and maintained stormwater quality measures will be tracked. A summary of maintenance on publicly owned stormwater control measures will be prepared. A summary of any corrective actions on privately owned and maintained stormwater control measures will be prepared. The data collected as part of MCM 5.3. will be documented as part of the Annual Report.

MCM 5.4 STAFF TRAINING

Description: The City of Douglas will implement a training program that provides training opportunities for staff. Training may be conducted in-house by qualified personnel or through a 3rd party vendor

Responsible Department:

Douglas Public Works Department
Douglas Community Development Department

Measurable Goals: One hundred percent (100%) of the staff involved in reviewing civil plans and inspecting stormwater control measures will be trained on an annual basis throughout the permit term. The number of attendees trained will be documented using the form provided in **Appendix L** or through participation certificates issued by the 3rd party.

Metrics: The number of persons trained will be tracked. A summary of the training topics will be tracked. The data used to track the annual training program will be documented as part of the Annual Report.

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MCM 5.6 POST-CONSTRUCTION EDUCATIONAL MATERIALS

Description: Douglas staff will develop/catalogue and distribute educational materials with specific messages for operators of new development and redevelopment, post-construction, stormwater control measures.

Responsible Department:

Douglas Public Works Department
Douglas Community Development Department

Measurable Goals: Educational Materials will be available throughout the year through the [stormwater web page](#). Material will be distributed to operators who maintain private stormwater control measures during the site review process with additional information disseminated on an as needed basis.

Metrics: The number of materials distributed or accessed during the permit year will be documented in the Annual Report for each permitted year.

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

8.1 OVERVIEW

Section 6.6 of the General Permit [AZG2021-002](#) (Permit) outlines the requirements for minimum control measures (MCM) used in developing, implementing and maintaining a program that's goal is to prevent or reduce pollutant runoff from municipal operations and ultimately protect water quality of the runoff discharged into City of Douglas's (Douglas) small municipal separate storm sewer systems (MS4).

In accordance with Section 6.6.2 the program will include:

- **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 ([Table 8.1](#)). A list of the site-specific risk rankings is provided in Appendix G.

TABLE 8-1 – INSPECTION SCHEDULE FOR MUNICIPAL OPERATIONS

Risk	Inspection Schedule
HIGH	4 TIMES/YEAR
MEDIUM	2 TIMES/YEARS
LOW	1 TIME/YEAR

- **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.

8.2 MUNICIPAL FACILITIES

The City of Douglas will evaluate their municipal facilities that are not covered by a separate AZPDES permit (e.g., MSGP) to prioritize those facilities that will require site specific BMPs. The list of high-risk facilities is presented in [Table 8-2](#). A complete list of the facilities operated and maintained by the City is provided in **Appendix G**.

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TABLE 8-2 – DOUGLAS HIGH RISK MUNICIPAL FACILITIES

Facility Names	Address	Risk
City Barn	2701 N. Sulphur Springs St.	High
City Calvary Cemetery	1413-1599 5 th St.	Medium
Douglas Wastewater Treatment Plant	100 N. Chino Rd.	Low

8.3 SELECTED BMPs

The City of Douglas 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 8-3, with a description of each BMP provided in this section. The site specific BMPs are presented in detail in **Appendix G**.

TABLE 8-3 - SUMMARY OF MCM 6 BMPs

BMP	Description
MCM 6.1a	Inventory of Municipal Operations and Facilities
MCM 6.1b	Prioritization of Municipal Operations and Facilities
MCM 6.2	Site-specific Storm Water Pollution Prevention Plans (High and Medium Risk Sites)
MCM 6.3	Good Housekeeping Operations for Low-Risk Municipal Facilities and Operations
MCM 6.4	Municipal Operation and Facility Inspections
MCM 6.5	Street Sweeping
MCM 6.6	Stormwater Infrastructure Maintenance and Cleaning Program
MCM 6.7	Pollution Prevention Measures – Municipal Maintenance Activities
MCM 6.8	Staff Training

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MCM 6.1A INVENTORY OF MUNICIPAL OPERATIONS AND SITE INSPECTIONS

Description: Douglas staff will prepare and maintain an updated inventory of municipal facilities and operations that may have the potential to discharge to the MS4. The inventory will be compiled as a list and also presented as a GIS Shapefile placed on a map.

Responsible Department:

Douglas Public Works Department
GIS Analyst

Measurable Goals: The map and/or list will be updated to reflect new municipal facilities constructed or redeveloped during the year, as well as any existing facilities that were not previously identified. This effort will be ongoing throughout the year and the facilities that are added will be documented.

Metrics: The number of facilities, and types of facilities added to the map will be tracked and will be documented as part of the Annual Report for the permit year.

MCM 6.1B PRIORITIZATION OF MUNICIPAL OPERATIONS

Description: Douglas staff will review the inspection records, type of operation and potential risk to discharge pollutants to the MS4 of all the municipal facilities and prioritize the list ranking them high risk, medium risk and low risk such that a routine inspection schedule of each facility can be established.

Responsible Department:

Douglas Public Works Department
Douglas Wastewater Division

Measurable Goals: The map and/or list of the facilities will be updated to reflect new site prioritization and when the prioritization of a previously identified site has been revised. The number and types of revisions will be tracked. The data collected as part of MCM 6.1b will be documented as part of the Annual Report for the permit year.

Metrics: The number of revisions made to the map and/or list made during the permit year will be documented in the Annual Report for each permit year.

MCM 6.2 SITE-SPECIFIC STORM WATER POLLUTION PREVENTION PLANS (HIGH AND MEDIUM RISK FACILITIES)

Description: Douglas staff will develop, implement, and maintain site-specific Stormwater Pollution Prevention Plans (SWPPP) for high and medium risk municipal operations.

Responsible Department:

Douglas Public Works Department
Douglas Public Works Streets & Wastewater Division
Douglas Cemetery

Measurable Goals: Within the permit year, SWPPs for new sites will be prepared. New SWPPs will be added to **Appendix M**.

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Metrics: SWPPs and the name and location of the sites for which the SWPPP was prepared will be documented as part of the Annual Report for the permit year.

MCM 6.3 GOOD HOUSEKEEPING OPERATIONS (LOW RISK FACILITIES)

Description: Douglas Staff will develop and implement a good housekeeping program for low-risk facilities and municipal operations that includes installing and inspecting BMPs at low-risk facilities and municipal operations for the purpose of preventing, trash, floatable debris, pollutants, and illicit discharges from entering the MS4.

Responsible Department:

Douglas Public Works Department

Measurable Goals: The low-risk facilities will be inspected annually. The number of inspections and the name of the facilities inspected will be documented. Any corrective actions taken or BMPs modified for any of the low-risk sites inspected will be summarized as part of the Annual Report for the permit year.

Metrics: The number of inspections and the name of the facilities inspected will be documented as part of the Annual Report for the permit year. Any corrective actions taken or BMPs modified for any of the low-risk sites inspected will be summarized as part of the Annual Report for the permit year.

MCM 6.4 FACILITY INSPECTIONS (HIGH AND MEDIUM RISK FACILITIES)

Description: Douglas Staff will develop and implement an inspection program of the BMPs installed at the municipal operations for the purpose of preventing trash, floatable debris, pollutants, and illicit discharges from entering the MS4.

Responsible Department:

Douglas Public Works Department, Parks and Cemetery

Measurable Goals: Inspections of high and medium risk facilities will be conducted in accordance with the inspection schedule provided in **Section 8.1**. The inspections will be documented using the form provided in **Appendix L**.

Metrics: The number of inspections and the name of the facilities inspected will be documented as part of the Annual Report for the permit year. Any corrective actions taken or BMPs modified for any of the high- or medium-risk sites inspected will be summarized as part of the Annual Report for the permit year.

MCM 6.5 STREET SWEEPING

Description: Maintain clean, safe streets and collect litter and sediment with the intent of capturing floatables and pollutants prior to entering the MS4 sewer system using equipment designed for cleaning paved surfaces.

Responsible Department:

Douglas Public Works Department

Measurable Goals: Throughout the year, Douglas will implement a street sweeping program in accordance with a master schedule. The total number of miles swept, and amount of material removed from the street (tons) will be

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tabulated. Collected material is tested for hazardous constituents as per landfill protocols.

Metrics: The total number of miles swept, and amount of material removed from the street (tons) will be documented within the Annual Report. In the event that hazardous materials are identified this information will be summarized as part of the annual report.

MCM 6.6 STORMWATER INFRASTRUCTURE MAINTENANCE AND CLEANING PROGRAM

Description: Douglas staff will maintain the publicly owned and operated stormwater control measures located within the MS4 boundary, removing trash, debris, and sediment in order to restore capacity and prevent pollutants from entering Oak Creek downstream.

Responsible Department:

Douglas Public Works Department

Measurable Goals: The City will inspect 100% of culverts, storm drains, and scuppers within the MS4 boundary and when necessary, will use water/vacuum trucks to remove pollutants. The number of facilities inspected/cleaned will be documented and tons of debris removed will be tracked.

Metrics: The number of facilities inspected/cleaned will be documented and tons of debris removed will be tracked and included in the Annual Report for each permit year.

MCM 6.7 POLLUTION PREVENT MEASURES AND CLEANING PROGRAM

Description: Douglas staff will implement a program that uses specified BMPs to prevent unauthorized discharges and pollutants, which are a by-product of routine maintenance and repairs of public facilities.

Responsible Department:

Douglas Public Works Department

Measurable Goals: Activities to repair and replace pavement surfaces can lead to urban runoff pollution. Pollutants include broken asphalt and concrete debris, saw-cutting slurry, concrete truck wash-out, sediment, fuel, oil, and other fluids from construction equipment, graffiti removal and building cleaning. To prevent these pollutants from entering the MS4, BMPs will be implemented as part of the work operation throughout the course of the permit year.

Metrics: The number of maintenance activities where BMPs were implemented and a summary of the types of BMPs implemented will be documented as part of the Annual Report for the permit year.

MCM 6.8 STAFF TRAINING

Description: The City of Douglas will implement a training program that provides training opportunities for staff. Training may be conducted in-house by qualified personnel or through a 3rd party vendor.

Responsible Department:

Douglas Public Works Department

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Measurable Goals: One hundred percent (100%) of the staff involved in implementing the Pollution Prevention and Good Housekeeping for Municipal Operations will be trained on an annual basis throughout the permit term. The number of attendees trained will be documented using the form provided in **Appendix L** or through participation certificates issued by the 3rd party. The completed forms will be stored in Appendix L.

Metrics: The number of persons trained will be tracked. A summary of the training topics will be tracked. The data used to track the annual training program will be documented as part of the Annual Report.

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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 Douglas (Douglas) has opted to create a Sampling and Analysis Plan (SAP) to document the processes and procedures used for Analytical Monitoring. These requirements are summarized in this section. The SAP, which is under development, 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 to the Arizona Department of Environmental Quality through the [myDEQ](#) 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

Douglas will collect stormwater samples at three (3) locations (General Permit [AZG2021-002](#) Section 7.2.4) as presented in Table 9.1. A map illustrating the location of the analytical monitoring outfalls is provided on Figure 9-1.

TABLE 9-1 – CHARACTERIZATION MONITORING LOCATIONS

No.	Outfall ID	Description	Longitude	Latitude
1	Outfall 1	Rose Wash at 9 th St. and Rose Ave.	-109.5352	31.3432
2	Outfall 2	Grate at A Ave and 3 rd St.	-109.5456	31.3377
3	Outfall 3	Jungle Wash at Pan American Ave.	-109.5600	31.3367
4	Outfall 4	Airport Wash at 13 th St and Airport Rd.	-109.5113	31.3475
5	Outfall 5	Apple White Wash at Apple White D. and Louis Ave.	-109.5346	31.3535

9.3 MONITORING TIMELINE

Douglas 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 [AZG2021-002](#) 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 [AZG2021-002](#) 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.

To determine if a storm qualifies, data from gage network located outside of the City of Douglas will be reviewed. The gage data can be accessed through at [Cochise Gage Data](#).

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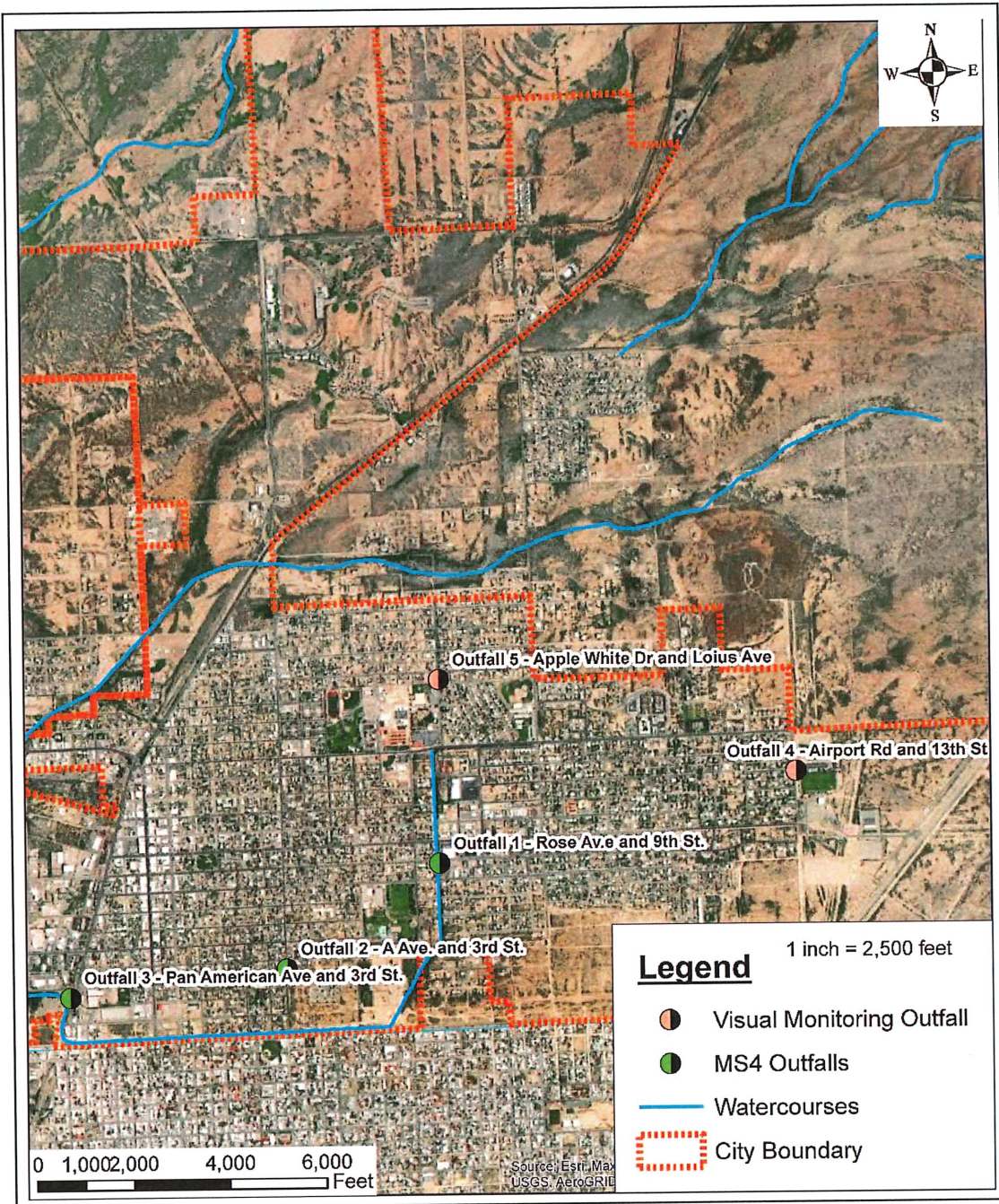
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Figure 9-1: Characterization Monitoring Locations



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9.5 CHARACTERIZATION MONITORING

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 the SAP, which can be found in [Appendix H](#).

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

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SECTION 10 ANNUAL PROGRAM EVALUATION PROTOCOLS

Because the SWMP is a living document, the Douglas Public Works Department will review the SWMP annually and track the measurable goals associated with the MCMs. The annual SWMP evaluation will include an assessment of the effectiveness of the BMPs implemented by the City of Douglas (Douglas) staff and the progress made towards achieving each of the BMP objectives.

The annual program evaluation protocol shall follow the following steps:

1. Public Works 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 three (3) weeks will be provided for each responsible party to provide their information and backup data.
2. Public Works 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. Public Works will discuss with the other departments the efficacy of the BMPs and if any modifications are needed or recommended.
4. When applicable, Public Works will review newly adopted ordinance, manuals or policies to verify that any changes made to these documents is reflected in the SWMP.
5. Revisions made to the SWMP or the BMPs will be documented with the information stored in **Appendix K**.
6. Public Works will compile the information received into an Annual Report. The Annual Report will be submitted on or before September 30th of each permit year to the Arizona Department of Environmental Quality through the [myDEQ](#) portal.
7. The approved Annual Report will be posted on Douglas's stormwater webpage ([Stormwater Webpage](#)) for public viewing.

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.

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SECTION 11 PLAN AVAILABILITY AND RECORD RETENTION

11.1 PLAN AVAILABILITY

The City's SWMP is available to the public via the [Douglas's Stormwater Webpage](#). This webpage also provides the City's Permit Authorization Certificate with authorization number. A hard copy of the SWMP is available for viewing by the public during business hours at the City of Douglas's Public Works.

11.2 RECORD RETENTION

The City will keep all records pertaining to the Permit for a minimum period of three (3) years from the end of the permit term (November 28th, 2029). The records will include all reports, follow up documentation, inspection records, enforcement actions, and data tracked and documented as part of the Annual Report.

The summary of findings from the Visual Monitoring efforts and the water quality analysis associated with the Characterization Monitoring, submitted with the Discharge Monitoring Report, will be kept for a minimum period of three (3) years from the end of the permit term (November 28th, 2029).

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SECTION 12 REFERENCES

- 1) 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.
- 2) 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 Douglas, “A Codification of the General Ordinances of the City of Douglas, Arizona 2012”, Revised April 25, 2021

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SECTION 13 ACRONYMS AND DEFINITIONS

13.1 ACRONYMS

The following is a list of acronyms and abbreviations that are commonly associated with the Stormwater Management Plan and the MS4 Permit.

AAC	Arizona Administration Code
ADEQ	Arizona Department of Environmental Quality
ARCA	Alternative Retention Criteria Act
ARS	Arizona Revised Statutes
AZPDES	Arizona Pollutant Discharge Elimination System
BMP(s)	Best Management Practice(s)
CFR	Code of Federal Regulations
CIP	Capital Improvement Project
CWA	Clean Water Act
DMR	Discharge Monitoring Report
ECP	Erosion Control Plan
EPA	Environmental Response Plan
ERP	Enforcement Response Plan
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act
GIS	Geographic Information System
HPCC	Household Products Collection Center
HWP	Hazardous Waste Management Plan
IC	Illicit Connection
ID	Illicit Discharge
IDDE	Illicit Discharge Detection and Elimination
IPM	Integrated Pest Management
MCM(s)	Minimum Control Measure(s)
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
MSGP	Multi-Sector General Permit
NEC	No Exposure Certificate
NOI	Notice of Intent
NOV	Notice of Violation
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
OAW	Outstanding Arizona Waters
PPB	Parts per Billion
PPE	Personal Protective Equipment
POTW	Publicly Owned Treatment Works
SARA	Superfund Amendments and Reauthorization Act
SIC	Standard Industrial Classification
SOP	Standard Operating Procedure
STORM	Stormwater Outreach for Regional Municipalities
SU	Standards Units
SWMP	Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan
SQWS	Stormwater Quality Standards
TMDL	Total Maximum Daily Load
WWD	White Water Draw
WWTP	Waste Water Treatment Plant

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13.2 DEFINITIONS

The following definitions are commonly associated with the Stormwater Management Plan and the MS4 Permit.

Arizona Pollutant Discharge Elimination System (AZPDES) - The ADEQ implementation of the EPA program for issuing, modifying, revoking, reissuing, terminating, monitoring, and enforcing permits and imposing and enforcing pretreatment requirements under the Clean Water Act.

Best Management Practices (BMPs) - Measures or practices used to prevent or minimize the amount of pollution entering surface waters. BMPs may take the form of a process, activity, or physical structure.

Discharge - The conveyance, channeling, runoff, or drainage stormwater, including snowmelt, from a site.

Erosion Control Plan - A document consisting of structural and non-structural BMPs to be implemented during construction or following construction to control pollutants and prevent illicit discharges from entering the MS4.

Impaired water - waters that have been assessed by ADEQ, under the Clean Water Act, as not attaining a water quality standard for at least one (1) designated use and are listed in Arizona's current 303(d) List or on the 305(b) Category 4 list.

Minor Spills - Spills that have a volume less than the reportable quantity, can be controlled and cleaned up with onsite resources, do not contaminate the environment, and do not cause injury to personnel.

Non-stormwater discharge - Any discharge not comprised entirely of stormwater except discharges authorized by a NPDES/AZPDES permit.

Notice of Intent - the application to operate under an ADEQ general permit (CGP, MS4 or MSGP)

Outfall - Any discernible stormwater conveyance (e.g., pipe, ditch, swale, canal) that discharges to waters of the state or to a separate municipal storm system. See also point source discharge.

Outstanding Arizona Water - a protected surface water that has been designated by ADEQ as an outstanding state resource under A.A.C. R18-11-112.

Point Discharge - Any discernible, confined, and discrete conveyance, including pipes, ditches, channels, tunnels, conduits, and wells.

Pollutant - Any dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discharged equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into stormwater.

Protected Water - waters of the State listed on the protected surface water list under Section 49-221, Subsection G and all WOTUS.

Qualifying Storm Event - rainfall in the amount of 0.1 inches or more resulting in a discharge.

Runoff - Part of precipitation, snowmelt, or irrigation water that runs off the land into streams or other surface water. It can carry pollutants from the air and land into the receiving waters.

Stormwater - Stormwater runoff, snowmelt runoff, and surface runoff and drainage.

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Stormwater Pollution Prevention Plan - a site-specific, written document that, among other things: identifies potential sources of stormwater pollution at the location of the disturbance; describes control measures to reduce or eliminate pollutants in stormwater discharges from the facility/activity; and identifies procedures the operator will implement to comply with the terms and conditions of the general permit (typically CGP or MSGP).

Total Maximum Daily Load - an estimation of the total amount of a pollutant from all sources that may be added to a water while still allowing the water to achieve and maintain applicable SWQS. Each total maximum daily load shall include allocations for sources that contribute the pollutant to the water.

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APPENDIX A MS4 INFRASTRUCTURE MAP

FIGURE 6 – CITY OF DOUGLAS STORM DRAIN MAP

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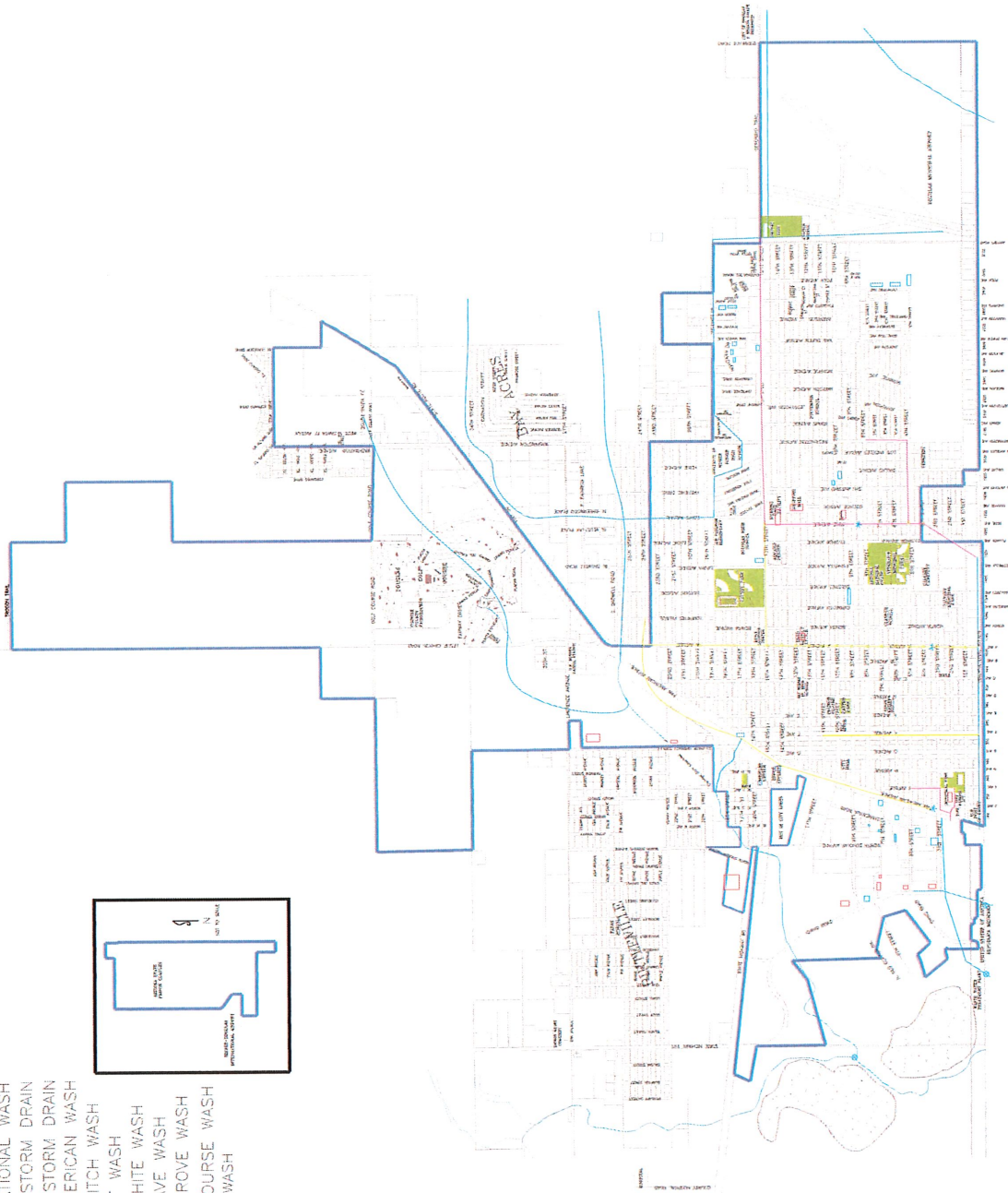
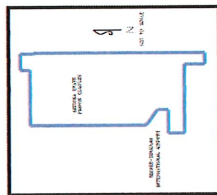
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CHANNELS, WASHES, STORM DRAIN

1. INTERNATIONAL WASH
2. A AVE. STORM DRAIN
3. F AVE. STORM DRAIN
4. PAN AMERICAN WASH
5. ROSE DITCH WASH
6. AIRPORT WASH
7. APPELWHITE WASH
8. LOUIS AVE WASH
9. PALM GROVE WASH
10. GOLF COURSE WASH
11. JUNGLE WASH



DEPARTMENT OF PUBLIC WORKS

- CITY LIMITS
- Drainage Channels
- Retention Basin
- Storm Sewer
- Needs Retention
- Dirt Channel
- Parks
- Wet and Dry Monitoring
- Main Out Falls
- OUTFALLS

Figure 6

CITY OF DOUGLAS, ARIZONA DEPARTMENT OF PUBLIC WORKS		1	1
CITY MS4/STORMDRAIN MAP		1	1
Drawn by: GALT	Scale: 1"=1000'	REF	SCALE
Check by: NEIL		APP'D BY	PROJECT ENGINEER
Drawn by: GALT		APP'D BY	PLAN NO.
Check by: NEIL		APP'D BY	OFFICE USE

APPENDIX B MCM 1 PUBLIC EDUCATION AND OUTREACH BMPS DETAILS

MCM 1.1	EDUCATIONAL MATERIALS (BUSINESS COMMUNITY)
MCM 1.2	EDUCATIONAL EVENTS (GENERAL PUBLIC)
MCM 1.3	EDUCATIONAL EVENTS
MCM 1.4	STORMWATER PAGE
MCM 1.5	COMMUNITY EVENT CALENDAR
MCM 1.6	STENCILING PROGRAM

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BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Frequency
1.1 Educational Materials (Business Community)	Public Works Department: <ul style="list-style-type: none"> City Engineer Environmental Specialist Community Development <ul style="list-style-type: none"> Engineering Plan Review Department 	<p>Develop and distribute educational materials with specific messages for specific target groups (i.e., to increase knowledge and change behavior of the public so that pollutants in stormwater are reduced).</p> <p>Target groups may include but are not limited to developers, construction site operators, industrial and commercial facilities, restaurants and automotive repair facilities, retail and shopping centers.</p>	<p>A. Identify priorities for stormwater brochures.</p> <p>B. Develop in-house or obtain from public sources storm water quality related brochures.</p> <p>C. Distribute educational materials with specific messages that include at least one (1) specific educational message directed at one (1) distinct target groups for each year of the permit term.</p> <p>Note: The educational messages specific to addressing stormwater quality topics tailored to the business sector may include but are not limited to general awareness,</p> <ul style="list-style-type: none"> ➤ Planning ordinances and grading and drainage standards for Stormwater Management in New Developments. (Target – Development Community) ➤ Municipal Stormwater requirements and Stormwater Management Practices for Construction Sites. (Target – Construction Site Operators) ➤ Illicit Discharge and proper management of Non-stormwater discharges. (Target - Industrial and Commercial Facility Operators) ➤ Spill prevention and proper handling of toxic and hazardous materials and measures to contain and minimize discharges to storm sewer systems (Target – Industrial and Commercial Facility Operators) ➤ Proper management and disposal of used oil, and other toxic materials, including practices to minimize exposure of material/wastes to rainfall and minimize contamination of stormwater runoff. (Target – Restaurant Owners) ➤ Stormwater Management Practices, Post-Construction Stormwater Pollution Prevention Plans and facility maintenance procedures. (Target – Vendors/Business General) ➤ Proper management and disposal of used oil, fat and grease. Proper procedures for building washing, cooling tower condensation. (Target – Vendors/Business General) 	<p>The number of educational messages and their respective target groups will be documented and reported. 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. Applicable information associated with the BMP will be reported in the Annual Report for the permit year.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	<p>Brochures and educational material will be available throughout the year via the webpage.</p> <p>Brochures and other educational materials will be distributed to the public at events (MCM-1.2) and as part of the permitting process MCM 4 and MCM 5.</p>

BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Frequency
1.2 Educational Materials (General Public)	Public Works Department: <ul style="list-style-type: none"> City Engineer Environmental Specialist Community Development Engineering Plan Review Department	<p>Develop and distribute educational materials with specific messages for specific target groups (i.e., to increase knowledge and change behavior of the public so that pollutants in stormwater are reduced).</p> <p>Target groups may include but are not limited to residents, residential communities, homeowner's associations, property management companies, restaurants, commercial facilities, schools and visitors.</p>	<p>A. Identify priorities for stormwater brochures.</p> <p>B. Develop in-house or obtain from public sources storm water quality related brochures.</p> <p>C. Distribute educational materials with specific messages that include at least one (1) specific educational message directed at one (1) distinct target groups for each year of the permit term.</p> <p>Note: The educational messages specific to addressing stormwater quality topics tailored to the general public may include but are not limited to general awareness,</p> <ul style="list-style-type: none"> ➤ Post-construction ordinances and long-term maintenance requirements for permanent stormwater controls. (Target – General Public) ➤ Stormwater runoff issues and residential stormwater management practices. (Target – Residential Community/Homeowners/Homeowner Associations/Property Companies/Visitors) ➤ Potential impacts of animal waste on water quality and the need to clean up and properly dispose of pet waste to minimize runoff of pollutants in stormwater. (Target – Residential Community/Homeowners/Homeowner Associations/Property Companies/Visitors) ➤ Illicit discharge and illegal dumping, proper management of stormwater discharges and information for reporting spills, dumping, and illicit discharges. (Target – Residential Community/Homeowners/Homeowner Associations/Property Companies/Visitors) ➤ Spill prevention, proper handling and disposal of storm sewer inlets to minimize discharges to the storm sewer system. (Target – Residential Community/Homeowners/Homeowner Associations/Property Companies/Visitors) 	<p>The number of educational messages and their respective target groups will be documented and reported. 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. Applicable information associated with the BMP will be reported in the Annual Report for the permit year.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	<p>Brochures and educational material will be available throughout the year via the webpage.</p> <p>Brochures and other educational materials will be distributed to the public at events (MCM-1.2) and as part of the permitting process MCM 4 and MCM 5.</p>

1.3 Educational Events	<p>Public Works Department:</p> <ul style="list-style-type: none"> • City Engineer • Environmental Specialist 	<p>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.</p> <p>Allow residents to request a free presentation on the importance of stormwater quality through Resources Tab the City of Douglas Stormwater Webpage.</p> <p>Target groups may include but are not limited to tourists, residents, residential communities, homeowner's associations, contractors/developers, business owners, commercial and industrial facilities</p>	<ul style="list-style-type: none"> ➤ Proper management and disposal of used oil and other automotive fluids and stormwater management practices for residential and general public auto repair. (Target – Residential Community/Visitors) ➤ Proper maintenance of pools and spas (Target – Residential Community/Visitors) ➤ Proper disposal of medication (Target – Residential Community/Visitors) ➤ Good home repair practices (Target – Residential Community/Visitors) ➤ Proper disposal of household grease, fats and oils. (Target – Residential Community/Visitors) 	<p>A. Identify community events to be used for priorities for stormwater brochures (i.e., Cochise County Fair).</p> <p>B. Notify the public of potential participation in the event through a public information release (MCM 1.4).</p> <p>C. Identify appropriate brochures.</p> <p>D. Attend community event.</p> <p>E. Handout Stormwater brochures and related material at Douglas Water Festival and other City events.</p> <p>F. Respond to request for stormwater presentations and/or post-construction stormwater pollution prevention plans.</p>	<p>The number of events, type of event and Stormwater Management materials distributed will be documented. A form to track the events attended and the material distributed is provided in Appendix L. The number and name of the events attended will be documented as part of the Annual Report.</p> <p>The number of citizens attending the event and number of citizens interacted with will be documented.</p> <p>The number of requests for stormwater presentations will be documented. The number, target audience and topic will be documented.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	<p>At least one (1) community event will be attended during each permit year.</p>
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BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Frequency
1.4 Stormwater Webpage	Public Works Department: <ul style="list-style-type: none"> City Engineer Environmental Specialist GIS Department <ul style="list-style-type: none"> GIS Analyst 	<p>Develop and maintain a City of Douglas Stormwater Webpage that conveys pertinent information regarding Douglas's Stormwater Management Program with the goal of increasing knowledge and changing the behavior of the public so that pollutants in stormwater are reduced.</p> <p>The posted information includes an electronic copy of the Stormwater Management Plan, Annual Reports, Notice of Intent, brochures and other educational resource material.</p>	<p>A. Identify staff that will review web content to ensure subject matter and links to resources are relevant and accurate.</p> <p>B. Provide updated SWMP(s), Annual Reports and the current Notice of Intent to Discharge (NOI).</p> <p>C. Provide links to educational resources and brochures.</p> <p>D. Provide a link to report stormwater quality complaints or potential illicit discharges.</p> <p>E. Provide a link to request a presentation.</p> <p>F. Updates to the website will occur when content is no longer applicable to the program or whenever new content, or educational materials are available.</p>	<p>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.</p> <p>The number of links reviewed will be documented as part of the Annual Review.</p> <p>The number of brochures reviewed or downloaded will be documented as part of the Annual Review.</p> <p>The number of complaints received, and actions taken will be documented as part of the Annual Review.</p> <p>Applicable information associated with the MCM will be reported in each Annual Report during the permit term.</p> <p>The number of updates to the website will be documented.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	<p>The website is available year-round.</p> <p>A complete review of the website will occur annually.</p>
1.5 Community Event Calendar	Public Works Department <ul style="list-style-type: none"> City Engineer Environmental Specialist GIS Department <ul style="list-style-type: none"> GIS Analyst 	<p>Maintain a calendar of community events that can be used to identify opportunities for public outreach or public education.</p> <p>Allow General Public to submit an event and subscribe to receive calendar notifications.</p>	<p>A. Identify potential community events.</p> <p>B. Review public input for adding events.</p> <p>C. Update the calendar</p> <p>The community event calendar can be accessed at City of Douglas Community Calendar. Tabs such as "Notify Me" and "Submit and Event" allow to subscribe to calendar notifications or add events to the calendar.</p>	<p>The number of recurring annual calendar events will be tracked and documented.</p> <p>The number of requests for calendar notifications will be tracked and documented.</p> <p>The number of calendar event submissions from the public will be tracked and documented.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	<p>The calendar will be monitored and updated throughout the course of the year.</p>
1.6 Stenciling Program	Public Works Department <ul style="list-style-type: none"> City Engineer Environmental Specialist 	<p>Install and maintain a series of catch basin markers and stenciled indicators on storm sewer inlets identify the MS4 Storm Sewer and promote stormwater quality.</p>	<p>A. Identify locations for signs and catch basin placards.</p> <p>B. Install signs and placards.</p> <p>C. Routinely inspect and maintain signs and placards, as necessary.</p>	<p>During the course of the year, City staff will install catch basin markers and/or stencil catch basin inlets.</p> <p>During the course of the year, City staff will inspect signs and scupper placards and repair or replace them as necessary.</p> <p>The number of signs and catch basin placards installed will be documented.</p> <p>The number of signs and catch basin placards repaired/replaced will be documented.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	<p>Public Signage installation and maintenance will occur through the year.</p>

APPENDIX C MCM2 PUBLIC PARTICIPATION AND INVOLVEMENT BMPS DETAILS

- MCM 2.1 COMMUNITY HOTLINE
- MCM 2.2 COMMUNITY EMAIL
- MCM 2.3 COMMUNITY EVENT CALENDAR
- MCM 2.4 VOLUNTEER OPPORTUNITIES
- MCM 2.5 STORMWATER WEBPAGE
- MCM 2.6 STENCILING PROGRAM
- MCM 2.7 LOCAL OUTREACH (PET WASTE PROGRAM)
- MCM 2.8 LOCAL OUTREACH (SWMP PUBLIC COMMENT/REVIEW)

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BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Frequency
2.1 Community Hotline	<u>Public Works Department:</u> <ul style="list-style-type: none"> City Engineer 	Provide a phone number that is available to the general public with the intention of providing a dedicated source of information regarding Douglas's SWMP, including, but not limited to general information, reporting of illicit discharges, and answering SWMP related questions.	As part of the City of Douglas Stormwater Webpage , provide a phone number to report stormwater violations or ask questions related to stormwater quality and the stormwater management plan.	The number of calls associated with the reporting of illicit discharges or inquiring about the stormwater management plan will be tracked and reported in each Annual Report during the permit term. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.	The phone number will be available year-round and monitored during normal business hours. The phone number will be verified as part of the webpage review that will occur annually.
2.2 Community Email	<u>Public Works Department:</u> <ul style="list-style-type: none"> City Engineer 	Provide an email address that is available to the general public with the intention of providing a dedicated source of information regarding Douglas's SWMP, including, but not limited to general information, reporting of illicit discharges, and answering SWMP related questions.	As part of the City of Douglas Stormwater Webpage , provide a contact email to report stormwater violations or to ask questions related to stormwater quality and the stormwater management plan.	The number of emails associated with the reporting of illicit discharges or inquiring about the stormwater management plan will be tracked and reported in each Annual Report during the permit term. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.	The email address will be available year-round, and emails will be answered during normal business hours within 1 day or receipt. The email address will be verified as part of the webpage review, that will occur annually.
2.3 Community Event Calendar	<u>Public Works Department:</u> <ul style="list-style-type: none"> City Engineer Environmental Specialist <u>GIS Department</u> GIS Analyst	Maintain a calendar of community events that can be used to identify opportunities for public outreach or public education. Allow General Public to submit an event and subscribe to receive calendar notifications.	A. Identify potential community events. B. Review public input for adding events. C. Update the calendar. The community event calendar can be accessed at City of Douglas Community Calendar . Tabs such as "Notify Me" and "Submit and Event" allow to subscribe to calendar notifications or add events to the calendar.	The number of reoccurring annual calendar events will be tracked and documented. The number of requests for calendar notifications will be tracked and documented. The number of calendar event submissions from the public will be tracked and documented. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.	The calendar will be monitored and updated throughout the course of the year.
2.4 Volunteer Opportunities	<u>Public Works Department:</u> <ul style="list-style-type: none"> City Engineer Environmental Specialist 	In a partnership with the local community develop programs that promote street clean up (Adopt-a-Street) or channel clean up (Adopt a Channel) The events will also disseminate information regarding the prevention of stormwater pollution and proper places to dispose of hazard waste and green waste.	A. In a cooperative effort to promote stormwater quality encourage volunteer programs that support a cleanup effort in and around city streets and drainageways B. Promote the opportunities and projects through the City of Sedona Community Event Calendar or through other community events (Cochise County Fair). D. Attend at a minimum of two (2) organized promotion and trash pickup day with a goal of having five (5) volunteers participate.	The number of volunteer events organized will be documented as part of the Annual Report The number of participants attending the promotion will be documented 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.	Two (2) volunteer opportunity will be conducted during the course of the permit year.

BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Category
2.5 Stormwater Webpage	Public Works Department: <ul style="list-style-type: none"> City Engineer Environmental Specialist GIS Department GIS Analyst	<p>Develop and maintain a City of Douglas Stormwater Webpage that conveys pertinent information regarding Douglas's Stormwater Management Program with the goal of increasing knowledge and changing the behavior of the public so that pollutants in stormwater are reduced.</p> <p>The posted information includes an electronic copy of the Stormwater Management Plan, Annual Reports, Notice of Intent, brochures and other educational resource material.</p>	<p>A. Identify staff that will review web content to ensure subject matter and links to resources are relevant and accurate.</p> <p>B. Provide updated SWMP(s), Annual Reports and the current Notice of Intent to Discharge (NOI).</p> <p>C. Provide links to educational resources and brochures.</p> <p>D. Provide a link to report stormwater quality complaints or potential illicit discharges.</p> <p>E. Provide a link to request a presentation.</p> <p>F. Updates to the website will occur when content is no longer applicable to the program or whenever new content, or educational materials are available.</p>	<p>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.</p> <p>The number of links reviewed will be documented as part of the Annual Review.</p> <p>The number of brochures reviewed or downloaded will be documented as part of the Annual Review.</p> <p>The number of complaints received, and actions taken will be documented as part of the Annual Review.</p> <p>Applicable information associated with the MCM will be reported in each Annual Report during the permit term.</p> <p>The number of updates to the website will be documented.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	<p>The website is available year-round.</p> <p>A complete review of the website will occur annually.</p>
2.6 Stenciling Program	Public Works Department <ul style="list-style-type: none"> City Engineer Environmental Specialist 	<p>Install and maintain a series of catch basin markers and stenciled indicators on storm sewer inlets identify the MS4 Storm Sewer and promote stormwater quality.</p>	<p>A. Identify locations for signs and catch basin placards.</p> <p>B. Install signs and placards.</p> <p>C. Routinely inspect and maintain signs and placards, as necessary.</p>	<p>During the course of the year, City staff will install catch basin markers and/or stencil catch basin inlets.</p> <p>During the course of the year, City staff will inspect signs and scupper placards and repair or replace them as necessary.</p> <p>The number of signs and catch basin placards installed will be documented.</p> <p>The number of signs and catch basin placards repaired/replaced will be documented.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	<p>Public Signage installation and maintenance will occur through the year.</p>

BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Frequency
2.7 Public Outreach (Pet Waste Program)	Public Works Department <ul style="list-style-type: none"> City Engineer Environmental Specialist Parks Department	Develop a program to encourage the self-policing of pet waste through the installation and maintenance of pet waste stations and community awareness.	A. Identify locations for pet waste stations. B. Install and maintain pet waste stations and pet waste disposal areas. C. Encourage participation by disseminating information on the importance of cleaning up and disposing of pet waste. Information will be distributed during Educational Events (BMP 2.6) and made available for download on the City of Douglas Stormwater Webpage .	During the course of the year and based on need, new pet stations may be installed to encourage pet waste management. During the course of the year, 100% of the pet stations will be inspected and as necessary the stations will be repaired or replaced. Number of Pet Waste Stations Installed will be documented as part of the Annual Report. Number of Pet Waster Stations maintained will be documented 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.	The installation of maintenance and Pet Waste Stations will occur through the year.
2.8 Local Outreach (SWMP Public Comment/Review)	Public Works Department: <ul style="list-style-type: none"> City Engineer Environmental Specialist GIS Analyst 	Develop a program for soliciting, collecting, and processing input regarding the City of Douglas's Stormwater Management Program.	A. Prior to the end of the permit year, a calendar notification and a press release to solicit input regarding City of Douglas Stormwater Management Program. A point of contact with email and phone number information will be provided as part of the press release. B. Collect and review feedback. C. Respond to comments and make changes as appropriate to the SWMP provided that the revision comply with the requirements of the MS4 Permit.	One time per year, City staff will solicit comments for the public. Acknowledgment of the receipt of comments will be sent to the participant and where applicable and appropriate revision to the program will be made., The number of comments received will be documented. The number and type of revisions made to the Stormwater Management Program will be documented. Revisions may include changes to the SWMP but also the website, attended community events, volunteer programs or the response protocols for investigating illicit discharges. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.	Local outreach soliciting comments will occur annually.

APPENDIX D MCM3 ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM BMP DETAILS

MCM 3.1 STORM SEWER SYSTEM MAPPING

MCM 3.2 WRITTEN ENFORCEMENT PROCEDURES AND LEGAL AUTHORITY REVIEW

MCM 3.3 VISUAL OUTFALL MONITORING (DRY WEATHER)

MCM 3.4 VISUAL OUTFALL MONITORING (WET WEATHER)

MCM 3.5 ILLICIT DISCHARGE IDENTIFICATION AND ELIMINATION

MCM 3.6 UNPERMITTED FACILITIES

MCM 3.7 IDDE STAFF TRAINING

MCM 3.8 ILLICIT DISCHARGE ON-LINE REPORTING

QUICK LINKS

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BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Frequency
3.1 Storm Sewer System Mapping	Public Works Department: <ul style="list-style-type: none"> City Engineer Environmental Specialist GIS Analyst 	Prepare and maintain an up-to-date map of the MS4 infrastructure that has sufficient scope and detail to use as a reference during proactive inspections or during the investigations to identify and eliminate illicit discharges.	<p>Identify staff that will be responsible for collecting data regarding newly constructed stormwater infrastructure. The collection of data will include cataloging infrastructure attributes such as type and size from as-built plans. The location of the infrastructure will be georeferenced during field reconnaissance.</p> <p>Information will be passed to the GIS Department for the purpose of creating a map that includes, 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; and detention/retention basins that are part of the MS4.</p>	<p>The Storm Sewer System Mapping will occur over the course of the year as new infrastructure is constructed, or improved.</p> <p>The number of new features added to the map will be tracked and reported in each Annual Report during the permit term.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	<p>Infrastructure information will be added to the GIS Database throughout the permit year once construction has been completed. Corrections, additions, or revisions to the GIS database will be made upon notification or discovery.</p>
3.2 Written Enforcement Procedures and Legal Authority Review	Public Works Department: <ul style="list-style-type: none"> City Engineer Environmental Specialist Community Development <ul style="list-style-type: none"> Plan Reviewer City Attorney's Office <ul style="list-style-type: none"> City Attorney City Prosecutor 	<p>Implement proper enforcement procedures and actions through the preparation and adoption of ordinances, and city codes.</p>	<p>Assign staff from the Public Works Department, Community Development Department and City Attorney's Office to Director to review the City of Douglas Title 15 of the City of Douglas Municipal Code and to ensure compliance with the stormwater enforcement requirements set forth in Section 3.0 and Section 6.3.2 of the General Permit AZG2021-002.</p> <p>Any revisions necessary to the Codes or the Ordinances will be presented to the City Attorney's Office. It is expected that the any revision will require City Council action.</p>	<p>The listed documents will be reviewed as part of the annual review of the Storm Water Management Program. As part of the Annual Report, any revisions will be summarized. In the event no revisions were made during the permit year, a statement acknowledging that the review of the Code and Ordinance was performed, and no revisions were made, will be included.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	<p>The documents used to enforce the MS4 Permit and by extension the Stormwater Management Program will be reviewed once per year.</p>

BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Frequency																		
3.3 Visual Monitoring (Dry Weather)	Public Works Department: <ul style="list-style-type: none">City EngineerEnvironmental Specialist	Detect and eliminate illicit discharges and connections to Douglas's MS4 through the implementation of annual dry-weather visual monitoring effort.	<p>A. Identify staff to perform routine dry weather monitoring at MS4 Outfalls.</p> <p>B. Conduct monitoring at the three (3) monitoring locations as listed below. Dry weather monitoring cannot be conducted within 72 hours of a qualifying storm event.</p> <table><thead><tr><th>No.</th><th>Outfall ID</th><th>Location</th></tr></thead><tbody><tr><td>1</td><td>Outfall 1</td><td>Rose Wash at 9th St. and Rose Ave.</td></tr><tr><td>2</td><td>Outfall 2</td><td>Grate at A Ave and 3rd St.</td></tr><tr><td>3</td><td>Outfall 3</td><td>Jungle Wash at Pan American Ave.</td></tr><tr><td>4</td><td>Outfall 4</td><td>Airport Wash at 13th St and Airport Rd.</td></tr><tr><td>5</td><td>Outfall 5</td><td>Apple White Wash at Apple White D. and Louis Ave.</td></tr></tbody></table> <p>C. Monitoring will be documented using the Visual Inspection Form (Appendix L). Completed forms will be saved in Appendix L for future reference.</p> <p>D. If an illicit discharge is observed, additional investigations will be performed to determine the source.</p> <p>E. If necessary, enforcement actions will be taken to eliminate the illicit discharge in accordance with Douglas City Code Chapter 15.24.100.</p>	No.	Outfall ID	Location	1	Outfall 1	Rose Wash at 9 th St. and Rose Ave.	2	Outfall 2	Grate at A Ave and 3 rd St.	3	Outfall 3	Jungle Wash at Pan American Ave.	4	Outfall 4	Airport Wash at 13 th St and Airport Rd.	5	Outfall 5	Apple White Wash at Apple White D. and Louis Ave.	<p>Twenty (20) percent of the outfalls will be visually monitored during dry weather conditions. Additional monitoring efforts will be performed in response to complaints filed with the City (On-line Reporting, Email and/or Hotline).</p> <p>The number of visual monitoring efforts (routine, complaint response, or follow-up) will be reported as part of the Annual Report. Any actions taken will be summarized as part of the Annual Report.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	Visual monitoring will occur annually over the permit term.
No.	Outfall ID	Location																					
1	Outfall 1	Rose Wash at 9 th St. and Rose Ave.																					
2	Outfall 2	Grate at A Ave and 3 rd St.																					
3	Outfall 3	Jungle Wash at Pan American Ave.																					
4	Outfall 4	Airport Wash at 13 th St and Airport Rd.																					
5	Outfall 5	Apple White Wash at Apple White D. and Louis Ave.																					

BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Frequency
3.4 Visual Monitoring (Wet Weather)	Public Works Department: <ul style="list-style-type: none"> City Engineer Environmental Specialist 	Monitor stormwater discharges at MS4 outfalls during a qualifying storm event. To the extent practicable, the stormwater sampling should include the first-flush discharge.	<p>A. Identify staff responsible for performing routine wet weather monitoring at MS4 Outfalls (See List in MCM 3.3), collecting of first-flush samples, and maintaining the passive water samplers.</p> <p>B. Collect samples from passive samplers following a qualifying storm event.</p> <p>C. Collect samples using active samplers (pole mounted dipper/ladle).</p> <p>D. Take photos of the sample and provide comments on the following observations, which may indicate a potential illicit discharge or indicate an area that requires pollution prevention BMP.</p> <ul style="list-style-type: none"> color clarity floatables odor debris sheen <p>E. The findings will be documented on the Visual Monitoring Inspection Form (Appendix L).</p> <ol style="list-style-type: none"> 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. If possible, during active sampling will be conducting the wet weather visual monitoring efforts. Until a local rain gage has been installed, precipitation data can be obtained from the Cochise County Flood Control District Rainfall webpage at Cochise County Rainfall Gages. Should an illicit discharge or potential pollutant source be suspected, additional wet weather and dry weather monitoring efforts will occur and appropriate actions will be taken (i.e., enforcement, implantation of additional BMPs). 	<p>One hundred percent (100%) percent of the outfalls will be visually monitored during wet weather conditions. Additional monitoring efforts will be performed should an illicit discharge be suspected.</p> <p>The number of visual monitoring efforts (routine, complaint response, or follow-up) will be reported as part of the Annual Report. Any actions taken will be summarized as part of the Annual Report.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	Visually monitoring will occur annually over the permit term.

BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Frequency
3.5 Illicit Discharge Identification and Elimination	<p>Public Works Department:</p> <ul style="list-style-type: none"> City Engineer Environmental Specialist <p>Police and Fire</p>	<p>Implement a process to detect and eliminate illicit discharges and unpermitted connections to the MS4s.</p>	<p>Assign staff to investigate potential illicit discharges. Sources that could necessitate an investigation include:</p> <ul style="list-style-type: none"> dry weather visual monitoring, field observations* complaints received through the illicit discharge reporting system (MCM 2.3). routine inspections of storm sewer and sanitary sewer infrastructure (Routine inspections of MS4 infrastructure, including but not limited to, storm drains, culverts and scupper and catch basins will be conducted by the Code Enforcement Officer) <p>Once a potential illicit discharge is reported the investigation will begin as soon as practicable. The steps in responding to a potential illicit discharge are as follows.</p> <ol style="list-style-type: none"> Locate the reported discharge or evidence of a recent discharge. Determine if the discharge is prohibited by Douglas City Code Title 15.24.040. If the discharge is not prohibited by the Code, contact the responsible party and provide information on how to minimize pollutants that may enter into the MS4. Tracking the discharge or evidence of a recent discharge by inspecting upstream sources, (streets, gutters, catch basins, laterals, mains, manholes, etc.), or reviewing as-built plans or GIS Data to determine storm drain connection points, laterals, mains, landmarks, etc. Video inspections may be used when tracking through sub-surface infrastructure. Upon confirming an illicit discharge, contact the responsible party to inform them they need to cease discharging into the MS4 immediately and if necessary clean up pollutants. Conduct a reinspection within three (3) business days. Document findings and actions on the IDDE Form found in (Appendix L). 	<p>Douglas staff will investigate all reports of a potential illicit discharge regardless of source. The number of IDDE Inspections will be tracked and documented as part of the Annual Report for the permit year. Follow-up actions will be summarized for each investigation and provided as supporting documentation.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p> <p>Completed forms will be stored in (Appendix L) of the SWMP.</p>	<p>Scheduled dry weather monitoring will occur one (1) per year at the outfalls.</p> <p>Field observations will be unscheduled and will occur throughout the permit year.</p> <p>The means to report a violation to the City of Douglas will be available throughout the permit year.</p>

BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Frequency
3.6 Unpermitted Facilities	Public Works Department: <ul style="list-style-type: none"> City Engineer Environmental Specialist Development Services	Systematically identify unpermitted facilities and/or activities that are located in or discharge to the MS4 with the intent of eliminating sources of non-stormwater discharges to the (MS4) and to implement procedures to prevent illicit connections and discharges.	<p>Assign staff to track the number of qualified construction sites (i.e., disturbance > 1 ac or part of a larger disturbance or planned development) and industrial sites that could require coverage under ADEQ's MSGP.</p> <p>Audit qualified construction sites for CGP coverage using the ADEQ's search engine. If the City suspects or has identified the construction site as a non-filer, the City will send a report containing the facility name and location to ADEQ (AZPDES@azdeq.gov) within thirty (30) days of discovery of a non-filer. Staff will also instruct the contractor or site operator that coverage under ADEQ's CGP is required for their construction site and/or construction activity.</p> <p>Within the first year, the City of Douglas will review types of business located within the MS4 limits. From this list, the City will identify the business that could potentially engage in an industrial activity. For those potential businesses, the City will send letters to the owners stating that their business may be engaging in an industrial activity that falls under the requirements set forth by ADEQ's MSGP program. If the City suspects or has identified the construction site as a non-filer, the City will send a report containing the facility name and location to ADEQ (AZPDES@azdeq.gov) such that they can verify that the businesses are covered under an MSGP.</p> <p>Throughout the life of the permit the Public Works Department in cooperation with Douglas City Clerk and the City of Douglas Finance Department will run reports to determine if any new industrial facilities have applied for business licenses within the City. The businesses SIC codes will be cross-referenced to the Multi-Sector General Permit (MSGP) SIC code list to determine if the business is required for a MSGP. If the City suspects or has identified the business as a non-filer, the City will send a report containing the facility name and location to ADEQ (AZPDES@azdeq.gov).</p>	<p>The number of construction sites audited during the 1st year and every permit year thereafter will be tracked. The number of construction sites found not to have CGP coverage will be tracked.</p> <p>The number of industrial facilities audited in the 1st year and every permit year thereafter will be year will be tracked. The number of facilities found not to have MSGP coverage will be tracked. The data will be reported as part of the Annual Report for the permit year.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	<p>Reviewing the permit status of construction sites and industrial facilities will occur throughout the year.</p>
3.7 IDDE Staff Training	Public Works Department: <ul style="list-style-type: none"> City Engineer Environmental Specialist 	Implement a training program on illicit discharge detection and elimination, stormwater quality and all facets of the SWMP.	<p>Assign staff to oversee SWMP Training program that may include training opportunities generated by in-house staff or through a 3rd party vendor to provide training on the SWMP, ADEQ IDDE Requirements, Douglas's IDDE BMPs, Construction Sites and Post Construction Inspections and overall stormwater quality and pollution prevention. Training attendance will be tracked using the Training Log provided in (Appendix L) or certificates of completion if conducted by a 3rd Party Vendor.</p>	<p>The number of training opportunities will be tracked. The number of staff trained will be tracked. The topics will be documented. The data will be reported as part of Annual Report for each the permit year.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	<p>Training will be conducted throughout the year and will be attended by 100% of staff that are tasked with implementing any aspect of the SWMP.</p>

BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Frequency
3.8 Illicit Discharge Reporting	<u>Public Works Department:</u> <ul style="list-style-type: none"> City Engineer Environmental Specialist 	Develop and maintain measures that will allow the public to report a potential illicit discharge or stormwater violation for the purpose of eliminating illicit discharges and improving stormwater quality.	<p>Douglas staff will actively respond to potential stormwater violations from the Stormwater Webpage. The webpage provides two (2) methods for reporting a violation (phone number, and email). Applicable complaints will be reviewed by the City Engineer and/or the Environmental Specialist.</p> <p>As part of the annual review of the Stormwater Management Program, the on-line form, phone number and email will be verified to ensure they are functioning as intended.</p>	The number of complaints submitted through two (2) methods will be tracked and documented as part of the Annual Report for the permit year. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.	The means to report a violation will be active throughout the permit year.

APPENDIX E MCM4 CONSTRUCTION ACTIVITY STORMWATER RUNOFF CONTROL BMP DETAILS

MCM 4.1 CONSTRUCTION SITE INVENTORY

MCM 4.2 SITE PLAN REVIEW

MCM 4.3 STAFF TRAINING

MCM 4.4 CONTRACTOR AND OPERATOR EDUCATION

MCM 4.5 INSPECTION AND ENFORCEMENT PROCEDURES

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BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Frequency
4.1 Construction Site Inventory	Public Works Department: <ul style="list-style-type: none"> City Engineer Environmental Specialist Development Services <ul style="list-style-type: none"> Plan Reviewer GIS Department <ul style="list-style-type: none"> GIS Analyst 	Prepare and maintain an up-to-date inventory of all active construction sites and construction activities that are located within City of Douglas incorporated limits.	<p>In a cooperative effort, the Douglas Public Works Department and the Douglas Community Development will develop and maintain a spreadsheet or database to keep 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 or sale if the larger common plan will ultimately disturb greater than one (1) acre. Construction sites will no longer be tracked once the final inspection has been completed.</p> <p>Assign staff to perform plan reviews. All plan reviews will be conducted in accordance with the adopted plan review process.</p> <ul style="list-style-type: none"> Civil Plans are submitted to the City's Community Department and the project is logged into the City's Permit Tracking System. As plans are reviewed, approval dates are documented in the City's Permit Tracking System. The owner/operator/contractor is notified once plans have been approved such that a building permit can be issued. In the event that the construction site is found to be located within ¼ mile of an Arizona Outstanding Water or an Impaired/Not Attaining Water, the applicant will be informed that the SWPPP will need to be submitted to ADEQ for review and approval. The approved plans are stamped with a reminder for the Contractor to review the associated stormwater requirements with ADEQ. The contractor is responsible for providing the City with a copy of the Stormwater Pollution Prevention Plan (SWPPP), with accompanying copy of the NOI, and Authorization To Discharge Letter with AZCON Number, and/or Erosion Control Plan (ECP²) before the contractor can begin earthwork. 	<p>All construction projects will be entered into the spreadsheet/database managed by the Douglas Public Works Department for tracking. The number of active construction projects will be documented as part of the Annual Report for the permit year.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	Data will be entered into spreadsheet/database throughout the course of the year.
4.2 Site Plan Review	Public Works Department: <ul style="list-style-type: none"> City Engineer Environmental Specialist Development Services <ul style="list-style-type: none"> Plan Reviewer 	Develop and implement a plan review process to review civil plans to ensure compliance with ADEQ's AZPES CGP, General Permit AZGS2021 , and City of Douglas City Code .	<p>The number of plans reviewed will be documented as part of the Annual Report for the permit year. The number of Storm Water Pollution Prevention Plans submitted and the number of Erosion Control Plans reviewed will be documented as part of the Annual Report for the permit year.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	<p>The number of plans reviewed will be documented as part of the Annual Report for the permit year. The number of Storm Water Pollution Prevention Plans submitted and the number of Erosion Control Plans reviewed will be documented as part of the Annual Report for the permit year.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	Plan reviews will occur throughout the year.

BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Frequency
4.3 Contractor and Operator Education Materials	<u>Public Works Department:</u> <ul style="list-style-type: none"> City Engineer Environmental Specialist <u>Community Development</u> <ul style="list-style-type: none"> Plan Reviewer 	Develop, catalogue and distribute educational materials with specific messages for contractors and construction site operators.	<p>Throughout the permit term, assigned staff will distribute educational materials to contractors and operators. Opportunities when materials are distributed include;</p> <ul style="list-style-type: none"> During initial plan review application (Hotlink to the web page). At the time when the building permit is issued. (Hard Copy Brochures) During Site Inspections (Hard Copy Brochures) <p>Current brochures include:</p> <ul style="list-style-type: none"> Construction Activities – Stormwater Pollution Prevention "Construction BMPs" "Stormwater Pollution Prevention for Construction Sites" 	<p>The number of educational materials distributed will be documented in the Annual Report for the permit year.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	<p>Construction-site specific brochures and educational material will be available throughout the year via the webpage. Hardcopies of the material will be available throughout the year as part of the distribution efforts.</p>
4.4 Staff Training	<u>Public Works Department:</u> <ul style="list-style-type: none"> City Engineer Environmental Specialist 	Implement a training program that is specific to pollution prevention and illicit discharge elimination at construction sites and associated with construction activities.	<p>Assign staff to oversee SWMP training program that may include training opportunities generated by in-house staff or through a 3rd party vendor. Training topics specific to Construction Activity Stormwater Runoff Control include, but are not limited to;</p> <ul style="list-style-type: none"> Plan review for stormwater quality, stormwater pollution prevention and erosion control, Construction sites inspections for storm water quality, stormwater pollution prevention and erosion control, and/or an Overview of the IDDE Program and the recognition of what is considered to be an allowable non-stormwater discharge. <p>Training attendance will be tracked using the Training Log provided in (Appendix L) or certificates of completion if conducted by a 3rd Party Vendor.</p>	<p>100% of City Douglas's staff that are responsible for implementing or enforcing the construction aspects of the Stormwater Management Program will be trained annually.</p> <p>The number of training opportunities will be tracked. The number of staff trained will be tracked. The topics will be documented. The data will be reported as part of the Annual Report for each the permit year.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	<p>Training will be conducted throughout the year.</p>

BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Frequency
4.5 Inspection and Enforcement Procedures	Public Works Department: <ul style="list-style-type: none"> City Engineer Environmental Specialist Community Development <ul style="list-style-type: none"> Plan Reviewer 	Develop, implement, and enforce a program to reduce pollutants in stormwater runoff to the Douglas's MS4 from construction activities.	<p>Douglas staff will perform stormwater quality inspections of construction sites and construction activities based on the following frequency criteria (General Permit AZGS2021-002 Section 6.4.f), and using the form prepared by ADEQ and provided in Appendix L. The approved Stormwater Pollution Prevention Plan (SWPPP) and/or Erosion Control Plan (ECP) will serve as the basis for the inspection.</p> <p>GOAL FOR PRIVATE DEVELOPMENT PROJECTS:</p> <p><u>For sites disturbing 1 acre or more and within ¼ mile of an impaired, not attaining, or protected surface water:</u></p> <ul style="list-style-type: none"> ➤ Weekly and, within 24 hours of a storm event having a precipitation amount of 0.5 inches in a 24-hour period. <p><u>For sites not meeting the above</u></p> <ul style="list-style-type: none"> ➤ Within 1 month of the start of construction ➤ and quarterly thereafter ➤ and upon completion of construction prior to final approval or occupancy <p>GOAL FOR CAPITAL IMPROVEMENT PROJECTS (CIP):</p> <p><u>For sites disturbing 1 acre or more and within ¼ mile of an impaired, not attaining, or protected surface water:</u></p> <ul style="list-style-type: none"> ➤ Weekly and, within 24 hours of a storm event having a precipitation amount of 0.5 inches in a 24-hour period. <p><u>For sites not meeting the above</u></p> <ul style="list-style-type: none"> ➤ Within 1 month of the start of construction ➤ and quarterly thereafter ➤ and upon completion of construction prior to final approval or occupancy <p>The inspection procedure to be used by the Douglas Inspectors includes the following tasks.</p> <p>A. Performing a visual inspection of the site/activity perimeter to;</p> <ul style="list-style-type: none"> • identify discharge locations as presented on the SWPPP or ECP and evidence of new off-site discharges locations, • locate/identify the perimeter controls as shown on the SWPPP or ECP, • locate the posted AZCON# or NOI Certificate. (If none is evident, the inspector may request to see the documents. If at the completion of the inspection the documents are 	<p>Douglas staff will perform inspections of 100% of construction sites and construction activities with the intent of achieving 80% of the scheduled inspections during the course of the permit year. The inspections will be completed using the form provided in Appendix L.</p> <p>The number of construction sites inspected, and the frequency of the inspections will be documented as part of the Annual Report for the permit year.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p> <p>Completed inspection forms will be stored in Appendix L of the SWMP.</p>	<p>Inspections will occur throughout the course of the year.</p>

			<p>not observed, found or provided, Douglas will notify ADEQ for follow-up.)</p> <ul style="list-style-type: none"> • Document the findings on Section II of the Form. <p>B. Upon notifying the facility operator, site supervisor, and/or NOI/SWPPP Point of Contact, proceed with the on-site inspection comparing the implemented best management practices (BMPs) with those presented on the SWPPP or Erosion Control Plan. (Note that the site representative will be allowed to accompany the inspector during the inspection. The on-site inspection, at a minimum, will:</p> <ul style="list-style-type: none"> • locate/identify the erosion and sediment control best management practices controls as shown on the SWPPP or ECP. • identify/review/locate the good housekeeping BMPs implemented at the facility, • compare the implemented BMPs with those presented in the SWPPP and ECP noting omissions, revisions, or discrepancies, • evaluate the effectiveness of the BMPs, • document the findings on Section III of the form and on the SWPPP or ECP. <p>C. Upon completion of the inspection, the inspector will meet with site representatives to explain the outcome of the inspection and address any required corrective actions. If corrected actions are needed a Follow-Up Inspection can be scheduled within ten (10) business days from the date of the initial inspection. (It should be noted that because the SWPPP and ECP are meant to be living documents, the inspector, at their discretion, may review the on-site SWPPP or ECP to verify if any missing or omitted items were part of a documented revision).</p> <p>D. Failure to address the corrective actions will be enforced in accordance with the City of Douglas City Code.</p>		
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APPENDIX F MCM5 POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT BMP DETAILS

MCM 5.1 STORMWATER CONTROL MEASURES INVENTORY
MCM 5.2 SITE PLAN REVIEW
MCM 5.3 INSPECTION AND ENFORCEMENT PROCEDURES
MCM 5.4 STAFF TRAINING
MCM 5.5 SWPPP/ECP FOR CAPITAL IMPROVEMENT PROJECTS
MCM 5.6 POST-CONSTRUCTION EDUCATIONAL MATERIALS

QUICK LINKS

[Appendix A: MS4
Infrastructure Maps](#)

[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](#)

[Appendix M: Site Specific
SWPPP](#)

BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Frequency
5.1 Stormwater Control Measures Inventory	<u>Public Works Department:</u> <ul style="list-style-type: none"> City Engineer Environmental Specialist <u>Community Development</u> <ul style="list-style-type: none"> Plan Reviewer <u>GIS Department</u> <ul style="list-style-type: none"> GIS Analyst 	Prepare and maintain an up-to-date inventory of post-construction stormwater control measures.	<p>Using the internal project tracking software, Douglas staff will enter new development and redevelopment projects such that post-construction stormwater control measures can be inventoried and scheduled for inspections.</p> <p>Once recorded, Douglas Staff will inventory the post-construction stormwater control measures and categorize them such that they can be added to the database.</p>	<p>The number of new developments and redeveloped sites completed during a permit year will be tracked. The number and type of post-construction stormwater control measures will be tracked. The data collected as part of MCM 5.1 will be documented as part of the Annual Report for the permit year.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	Data will be entered into the Douglas's internal tracking system throughout the course of the year.
5.2 Site Plan Review	<u>Public Works Department:</u> <ul style="list-style-type: none"> City Engineer Environmental Specialist <u>Community Development</u> <ul style="list-style-type: none"> Plan Reviewer 	Develop and implement a plan review process to review civil plans to ensure compliance with ADEQ's AZPES CGP , General Permit AZGS2021 , and City of Douglas City Code .	<p>Assign staff to perform plan reviews. All plan reviews will be conducted in accordance with the adopted plan review process.</p> <ul style="list-style-type: none"> Civil Plans are submitted to the City's Development Services Department and the project is logged into Douglas's internal permit tracking system. As plans are reviewed, approval dates are documented in Douglas's internal permit tracking system. Plans are reviewed to verify that post-construction stormwater control measures are included and that general notes or recorded covenants, conditions and restrictions are in place to; <ul style="list-style-type: none"> ensure that the stormwater measures are to be maintained in perpetuity, name the party responsible(s) for overseeing the operation and maintenance of the measure, ensure that Douglas has the right to inspect the post-construction stormwater control measures, state that failure to maintain the stormwater control measures will result in a notice of violation, and provide the City, at its discretion, the right to perform maintenance on the post-construction control measure, and the right to seek reimbursement for the incurred cost. 	<p>The number of plans reviewed, as entered in Douglas's internal permit tracking system, will be documented as part of the Annual Report for the permit year.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	Plan reviews will occur throughout the year.

BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Frequency
5.3 Inspection and Enforcement Procedures	<p>Public Works Department:</p> <ul style="list-style-type: none"> City Engineer Code Enforcement Officer <p>City Attorney</p> <ul style="list-style-type: none"> City Prosecutor s 	Develop, implement, and enforce an inspection program of public and private post-construction stormwater control measures, in order to reduce pollutants in stormwater runoff from entering to the MS4.	<p>Douglas staff will perform post-construction reviews for both publicly and privately owned and operated facilities and stormwater control measures (Note storm water control measures include but are not limited to culverts, channels, storm drains, catch basins, retention basins and drywells). The inspections will be documented using the form provided in Appendix L.</p> <p>Douglas requires the owner/operator to properly maintain privately owned post-construction stormwater controls. This requirement is documented in the form of maintenance agreements, covenants, conditions, and restrictions and is recorded on the final as-built plans, recorded with the deeds/plats, and entered into the City's internal permit tracking system. However, upon receiving a report of a potential stormwater quality violation or potential illicit discharge, Douglas staff will inspect the privately owned and maintained stormwater control measures. These inspections will be documented using the form provided in Appendix L.</p>	<p>Douglas staff will inspect, at a minimum, 20% of its post-construction stormwater control measures annually (Public Facilities).</p> <p>Douglas staff will inspect 100% of the stormwater quality violations or potential illicit discharges reported (Private Facilities).</p> <p>The number of inspections of publicly owned and operated stormwater control measures will be tracked.</p> <p>The number of inspections of privately owned and maintained stormwater quality measures will be tracked. A summary of maintenance on publicly owned stormwater control measures will be prepared.</p> <p>A summary of any corrective action taken on privately owned and maintained stormwater control measures will be prepared. The data collected as part of MCM 5.3 will be documented as part of the Annual Report for the permit year.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p> <p>Completed inspection forms will be stored in Appendix L of the SWMP.</p>	Inspections will occur throughout the course of the year.
5.4 Staff Training	<p>Public Works Department:</p> <ul style="list-style-type: none"> City Engineer Environmental Specialist 	Implement a training program that is specific to post-construction pollution prevention and illicit discharge elimination at development and redevelopment sites.	<p>Assign staff to oversee SWMP Training program that may include training opportunities generated by in-house staff or through a 3rd party vendor. Training topics specific to Construction Activity Stormwater Runoff Control include but are not limited to;</p> <ul style="list-style-type: none"> Reviewing Plans for post-construction stormwater controls and required maintenance agreements. Inspection of publicly owned and maintained storm water quality measures. Inspection of privately owned and maintained storm water quality measures. <p>Training attendance will be tracked using the Training Log provided in (Appendix L) or certificates of completion if conducted by a 3rd Party Vendor.</p>	<p>100% of City Douglas's staff that are responsible for implementing or enforcing the post-construction aspects of the Stormwater Management Program will be trained annually.</p> <p>The number of training opportunities will be tracked. The number of staff trained will be tracked. The topics will be documented. The data will be reported as part of Annual Report for each the permit year.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	Training will be conducted throughout the year.

BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Frequency
5.5 Site Specific Storm Water Pollution Prevention Plans/Erosion Control Plans (Capital Improvement Projects)	Public Works Department: <ul style="list-style-type: none"> City Engineer Environmental Specialist 	<p>Develop, implement, and maintain site-specific Stormwater Pollution Prevention Plans (SWPPP) for Capital Improvement Projects (CIP) disturbing more than 1 acre or within 1/4 of an OAW.</p> <p>Development, implement an Erosion Control Plan for Capital Improvement Projects disturbing less than 1 acre.</p>	<p>Prior to construction of a Capital Improvement Project (CIP) either a Stormwater Pollution Prevention Plan (SWPPP) or Erosion Control Plan (ECP) will be completed by Douglas Public Works. The SWPPP/ECP will contain the best management practices (BMPs) that will be implemented during construction. The SWPPPs/ECP will be evaluated and modified as necessary during construction to prevent storm water pollution and illicit discharges from entering the MS4. Should the disturbance exceed 1 acre, a Notice of Intent will be submitted to ADEQ. (Note for sites that are within 1/4 of an AOW, Impaired Water or Unattaining Water, the SWPPP will need to be submitted to ADEQ for review and approval).</p> <p>The SWPPP will be implemented upon completion and will be evaluated during site inspections and as part of the Annual Review of the SWMP.</p> <p>The SWPPP will be stored in Appendix M of the SWMP.</p>	<p>The number of SWPPPs/ECPs and the name and location of the sites for which the SWPPP/ECP was prepared will be documented as part of the Annual Report for the permit year.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	<p>SWPPPs will be created, as needed, throughout the year in support of the construction CIP.</p>
5.6 Post-Construction Education Materials	Public Works Department: <ul style="list-style-type: none"> City Engineer Environmental Specialist Community Development Plan Reviewer	<p>Develop, catalogue and distribute educational materials with specific messages for owner/operators of stormwater control measures.</p>	<p>A. Develop or obtain from available shareware resources, Industrial Sector Stormwater Quality Brochures.</p> <p>B. Throughout the permit term, assigned staff will provide and distribute educational materials to owner/operators of post-construction stormwater control measures and general information about reducing stormwater pollutants in the MS4. Opportunities when materials are distributed include;</p> <ul style="list-style-type: none"> During initial plan review application At the time when the building permit is issued. (Hard Copy Brochures) During Site Inspections (Hard Copy Brochures) 	<p>The number of new brochures created in-house or obtained from outside sources will be documented in the Annual Report.</p> <p>The number of educational materials distributed will be documented in the Annual Report for the permit year.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	<p>Post-construction specific brochures and educational material will be available throughout the year via the webpage.</p> <p>Hardcopies of the material will be available throughout the year as part of the distribution efforts.</p>

APPENDIX G MCM 6 POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS BMP DETAILS

MCM 6.1A	INVENTORY OF MUNICIPAL OPERATIONS AND FACILITIES
MCM 6.1B	PRIORITIZATION OF MUNICIPAL OPERATIONS AND FACILITIES
MCM 6.2	SITE SPECIFIC STORM WATER POLLUTION PREVENTION PLANS (HIGH AND MEDIUM RISK SITES)
MCM 6.3	GOOD HOUSEKEEPING OPERATIONS FOR LOW-RISK MUNICIPAL FACILITIES AND OPERATIONS
MCM 6.4	MUNICIPAL OPERATION AND FACILITY INSPECTIONS
MCM 6.5	STREET SWEEPING
MCM 6.6	STORMWATER INFRASTRUCTURE MAINTENANCE AND CLEANING PROGRAM
MCM 6.7	POLLUTION PREVENTION MEASURES - MUNICIPAL MAINTENANCE ACTIVITIES
MCM 6.8	STAFF TRAINING
INVENTORY OF PRIORITIZED SITES	

QUICK LINKS

[Appendix A: MS4 Infrastructure Maps](#)

[Appendix B: MCM 1 Public Education and Outreach BMP Details](#)

[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](#)

[Appendix M: Site Specific SWPPP](#)

BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Frequency
6.1a Inventory of Municipal Operations and Facilities	Public Works Department: <ul style="list-style-type: none"> City Engineer Environmental Specialist GIS Department <ul style="list-style-type: none"> GIS Analyst 	Prepare and maintain an up-to-date inventory of municipal operations and facilities that may have the potential to discharge pollutants to the MS4.	Douglas Public Works Department staff will develop and maintain a map and/or list of all facilities that can be utilized for conducting site inspections. Facilities may include, but are not limited to the City Hall, police and fire stations, municipal pools, parks, city yards, well sites, airport, water and wastewater treatment facilities, fleet repair, etc.	The map and/or list will be updated to reflect new municipal facilities constructed or redeveloped during the year, and any existing facility not previously identified. The number and types of revisions will be tracked. The data collected as part of MCM 6.1a will be documented as part of the Annual Report for the permit year. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.	The map and/or list will be updated as necessary throughout the year.
6.1b Prioritization of Municipal Operations and Facilities	Public Works Department: <ul style="list-style-type: none"> City Engineer Environmental Specialist 	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.	<p>Douglas Public Works Department will review the inspection records, type of operation and potential risk to discharge pollutants to the MS4 of all the municipal facilities. Following this review, a priority ranking will be assigned, and inspection schedule determined based on Section 6.6.2.c General Permit AZGS2021.</p> <p>The Rankings are as follows:</p> <ul style="list-style-type: none"> City Barn (Fleet Yard) Priority 1 - High Risk City Calvary Cemetery Priority 2 - Medium Risk City Municipal Buildings / Parking Lots Priority 3 - Low Risk <p>The rankings will be represented on a map of the municipal operations or as part of a list of the operations. A list of the rankings is provided below (Site Rankings).</p>	<p>The map and/or list will be updated to reflect new site prioritization or when the prioritization of a site has been revised. The number and types of revisions will be tracked. The data collected as part of MCM 6.1b will be documented as part of the Annual Report for the permit year.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	The prioritization for each facility will be reviewed annually.
6.2 Site Specific Storm Water Pollution Prevention Plans (High and Medium Risk Sites)	Public Works Department: <ul style="list-style-type: none"> City Engineer Environmental Specialist 	Develop, implement, and maintain site-specific Stormwater Pollution Prevention Plans (SWPPP) for high and medium risk municipal operations and capital improvement projects.	<p>A. Douglas Public Works staff will prepare site-specific (SWPPPs) for the Priority 1 (High Risk) and Priority 2 (Medium Risk) facilities. The SWPPP will contain the best management practices (BMPs) that will be implemented at the municipal operation.</p> <p>B. Douglas Public Works Department in cooperation with the facility supervisors will implement the BMPs for the facilities as outlined in the SWPPP.</p> <p>C. Douglas Public Works and the facility supervisor will evaluate and modify the SWPPP to prevent storm water pollution and illicit discharges from exiting the facility and entering the MS4.</p> <p>The SWPPP will be implemented upon completion and will be evaluated during site inspections and as part of the Annual Review of the SWMP.</p> <p>The SWPPP will be stored in Appendix M of the SWMP.</p>	<p>The number of SWPPPs and the name and location of the sites for which an SWPPP was prepared will be documented as part of the Annual Report for the permit year.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	SWPPPs will be implemented as needed throughout the year.

BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Frequency
6.3 Good Housekeeping Operations for Low-Risk Municipal Facilities and Operations	Public Works Department: <ul style="list-style-type: none"> City Engineer Environmental Specialist 	Develop and implement a good housekeeping program for low-risk facilities and municipal operations, which includes installing, and inspecting BMPs at low-risk municipal operations for the purpose of preventing, trash, floatable debris, pollutants, and illicit discharges from entering the MS4.	<p>In an inter-division, cooperation effort, Public Works Department staff will develop, implement, and maintain a series of BMPs at the low-risk municipal operations and facilities. Operations and facilities may include, but are not limited to the City Hall, low-risk fire and police stations, parks, libraries, aquatic center and public pools.</p> <p><u>Low-Risk Municipal Operations BMPs</u></p> <p><u>Material/Chemical Storage:</u></p> <ul style="list-style-type: none"> It is recognized that 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. <p><u>Litter Control:</u></p> <ul style="list-style-type: none"> 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. <p><u>Waste and Trash Removal:</u></p> <ul style="list-style-type: none"> Removal of waste and trash will be based on a set schedule (trash receptacles). <p><u>Training:</u></p> <ul style="list-style-type: none"> It is recognized that staff at these facilities will not be part of the routine training schedule. However, the Douglas Public Works Department will provide when the opportunity arises, (i.e., after an inspection) to educate facility operators of the importance of stormwater quality and the City's responsibilities in implementing its Stormwater Management Program. <p><u>Inspections:</u></p> <ul style="list-style-type: none"> Site inspections will occur at least once during the permit year. Inspections will examine the following items: <ul style="list-style-type: none"> trash receptacles vehicle/equipment storage areas and parking lots outdoor storage areas drainage infrastructure (i.e., retention basins, culverts and storm drains, sumps) 	<p>The number of inspections conducted, the names and locations of the inspections and the results will be tracked. The number of inspections and the name of the facilities inspected will be documented as part of the Annual Report for the permit year. Any corrective actions taken or BMPs modified for any of the low-risk sites inspected will be summarized as part of the Annual Report for the permit year.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	Implementation of the Good Housekeeping Operations as well as the inspections of the low-risk municipal facilities will occur throughout the year.

6.4 Municipal Operation and Facility Inspections	<p>Public Works Department:</p> <ul style="list-style-type: none"> • City Engineer • Environmental Specialist 	Develop, and implement an inspection program of the BMPs installed at the municipal operations for the purpose of preventing, trash, floatable debris, pollutants, and illicit discharges from entering from entering the MS4.	<p>✓ common areas and landscape areas</p> <p>✓ facility specific areas identified by the Douglas Public Works Department</p> <p>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. Inspections will be documented on the form provided in Appendix L. Upon completion inspection forms will be stored Appendix L.</p> <p>D. Douglas Public Works staff will review the Stormwater Pollution Prevention Plans for each high and medium risk municipal operation. The number of inspections is provided in Section 8.1 of the SWMP.</p> <p>E. Staff, accompanied by facility managers and maintenance staff, if necessary, will inspect the facility based on the BMPs presented on the SWPPP.</p> <p>F. The inspections 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 to account for the potential pollutant source.</p> <p>G. Inspections will be documented using the form provided in Appendix L. Completed forms will be stored Appendix L for future reference.</p> <p>H. 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.</p>	<p>The number of inspections conducted, the names and locations of the inspections and the results will be tracked. The number of inspections and the name of the facilities inspected will be documented as part of the Annual Report for the permit year. Any corrective actions taken or BMPs modified for any of the low-risk sites inspected will be summarized as part of the Annual Report for the permit year.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	Inspections of the high and medium risk municipal facilities will occur throughout the year.
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BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Frequency
6.5 Street Sweeping	Public Works Department: <ul style="list-style-type: none"> City Engineer Environmental Specialist 	Maintain clean, safe streets and collect litter and sediment with the intent of capturing floatables and pollutants prior to entering the MS4 sewer system using equipment designed for cleaning paved surfaces. 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.	A. Douglas Public Works staff will be assigned to street sweeping BMP. B. Sweeping will occur in a master schedule. C. Collected material will be brought to the City Barn for proper disposal. Note: The Streetsweeper will be maintained on a set schedule. Cleaning of the sweepers will be conducted at the City Barn.	The total number of miles swept, and amount of material removed from the street (tons) will be documented and reported within the Annual Report. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.	Street Sweeping will occur throughout the year.
6.6 Stormwater Infrastructure Maintenance and Cleaning Program	Public Works Department: <ul style="list-style-type: none"> City Engineer Environmental Specialist 	Maintain the publicly owned and operated stormwater control measures located within the MS4, removing trash, debris, and sediment to restore capacity and prevent pollutants from entering Oak Creek (the OAW) downstream.	A. Douglas Public Works staff will be assigned to perform routine maintenance of the public publicly owned and operated stormwater control measures. B. Douglas Public Works staff, using water/vacuum trucks, will remove pollutants from 100% culverts, storm drains and scuppers recommended to have such services. Collected material will be brought to the Public Works Yard at Contractors Road for proper disposal.	The number of facilities cleaned during the permit year will be tracked. The tons of debris removed from the stormwater control measures will be tracked. The data collected as part of MCM 6.6 will be incorporated into the Annual Report for the permit year. Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.	Maintenance of the stormwater controls will occur throughout the year.

BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Frequency
6.7 Pollution Prevention Measures - Municipal Maintenance Activities	Public Works Department: <ul style="list-style-type: none"> City Engineer Environmental Specialist 	Implement a program which uses specified BMPs, to prevent unauthorized discharges and pollutants that are a by-product of routine maintenance and repairs of public facilities.	<p>Activities to repair and replace pavement surfaces can lead to urban runoff pollution. Pollutants of concern include broken asphalt and concrete debris, saw-cutting slurry, concrete truck wash-out, sediment, fuel, oil, and other fluids from construction equipment. Urban runoff also can result from other cleaning activities such as graffiti removal and building cleaning. To prevent these pollutants from entering the MS4, BMPs will be implemented as part of the work operation. BMPs include, but are not limited to, the following:</p> <ul style="list-style-type: none"> Conducting repairs and maintenance during periods of dry weather. Promptly sweeping up construction waste, sediment, or saw-cut materials. Protecting storm drains and waterbodies by installing structural control measures such as wattles, filter socks, gravel/sandbag berms, and silt fences. Equipment maintenance to eliminate fluid leaks. Recycling material. Using, when possible, bio-degradable/non-hazardous chemicals during the repairs and maintenance efforts. 	<p>The number of maintenance activities where BMPs were implemented and a summary of the types of BMPs implemented will be documented as part of the Annual Report for the permit year.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	Repairs and maintenance of public owned and maintained facilities will occur throughout the permit year. BMPs

BMP Category	Responsible Department(s)/Staff Titles	Objective	Procedure	Measurable Goals & Documentation Retention	BMP Frequency
6.8 Staff Training	<u>Public Works Department:</u> <ul style="list-style-type: none"> City Engineer Environmental Specialist 	Implement a training program that is specific to Pollution Prevention and Good Housekeeping at municipal facilities.	<p>Assign staff to oversee SWMP training program that may include training opportunities generated by in-house staff or through a 3rd party vendor. Training topics specific to Good Housekeeping and Pollution Prevention include but are not limited to;</p> <ul style="list-style-type: none"> Inspection of publicly owned and maintained storm water quality measures. Importance of Stormwater Pollution Prevention on publicly owned and operated facilities. Developing, implementing, and maintaining site-specific SWPPPs. Implementation and proper installation of spill prevention measures such as: <ul style="list-style-type: none"> Spill Kits Drip Pans Secondary containment devices Chemical Storage and Hazardous Waste Disposal Implementation and proper use of sediment and pollution control measures such as: <ul style="list-style-type: none"> Silt Fences, Straw Wattle Filter socks Sand and Gravel Berms Vehicle/Tire Wash Facilities Gravel beds/ Track Out Control Mats <p>Training attendance will be tracked using the Training Log provided in (Appendix L) or certificates of completion if conducted by a 3rd Party Vendor.</p>	<p>The number of training opportunities will be tracked. The number of staff trained will be tracked. The topics will be documented. The data will be reported as part of the Annual Report for each the permit year.</p> <p>Applicable records will be maintained for a minimum of three (3) years following the end of the permit term.</p>	Training will be conducted throughout the permit year.

MUNICIPALLY OWNED AND OPERATED FACILITIES WITH PRIORITY RANKINGS

CONTRACTOR YARDS			
FACILITY	LOCATION	SITE PRIORITY (L/M/H)	INSPECTION FREQUENCY
City Barn	2701 N. Sulphur Spring St.	High	4
OTHER MUNICIPAL BUILDINGS			
FACILITY	LOCATION	SITE PRIORITY (L/M/H)	INSPECTION FREQUENCY
City Hall	425 E. 10 th St.	Low	1
Visitor Center	345 16 th St.	Low	1
FIRE STATIONS/FACILITIES			
FACILITY	LOCATION	SITE PRIORITY (L/M/H)	INSPECTION FREQUENCY
Station 1	1400 E. 10 th St	Low	1
POLICE STATIONS/FACILITIES			
FACILITY	LOCATION	SITE PRIORITY (L/M/H)	INSPECTION FREQUENCY

QUICK LINKS

[Appendix A: MS4 Infrastructure Maps](#)

[Appendix B: MCM 1 Public Education and Outreach BMP Details](#)

[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](#)

[Appendix M: Site Specific SWPPP](#)

WATER TREATMENT			
FACILITY	LOCATION	SITE PRIORITY (L/M/H)	INSPECTION FREQUENCY
WASTEWATER TREATMENT			
FACILITY	LOCATION	SITE PRIORITY (L/M/H)	INSPECTION FREQUENCY
Wastewater Treatment Plant	100 N. Chino Rd.	High	4
CITY OPERATED AMENITIES			
City Calvary Cemetery	1413-1599 5 th St.	Low	1
City Aquatic Center	1551 E. 15 th St.	Low	1
8 th St. Pool	1412-1598 5 th St.	Low	1

QUICK LINKS

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APPENDIX H SAMPLING AND ANALYSIS PLAN

CHARACTERIZATION MONITORING CHEMICAL LIST
SAMPLING AND ANALYSIS PLAN

QUICK LINKS

[Appendix A: MS4
Infrastructure Maps](#)

[Appendix B: MCM 1 Public
Education and Outreach BMP
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[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](#)

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and Revision Log](#)

[Appendix L: Forms](#)

[Appendix M: Site Specific
SWPPP](#)

STORMWATER CHARACTERIZATION MONITORING REQUIREMENTS

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

PARAMETER	UNITS	MONITORING FREQUENCY	MONITORING TYPE
METALS			
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-tetrachloroethane	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-dichloroethylene	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
SEMI-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
Hexachlorocyclopentadiene	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.