2022

Stormwater Management Plan

Updated July 2025

In accordance with the
Arizona Pollutant Discharge Elimination System
General Permit for Stormwater Discharges from
Small Municipal Separate Storm Sewer Systems
Permit No. AZG2021-002
Effective September 30, 2021
Modified September 16, 2022

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Contents

Executive Summary

This Stormwater Management Plan (SWMP) outlines the City of Cottonwood, Arizona's program for minimizing the runoff of pollutants to surface water bodies from stormwater infrastructure within its jurisdiction. This document has been prepared to meet the requirements of the Arizona Department of Environmental Quality's (ADEQ) surface water regulatory program described below, to guide City activities for protecting and improving surface water quality, and to provide transparency to the public regarding these City activities.

Regulatory Program

Under the authority of the Clean Water Act, the U.S. Environmental Protection Agency (EPA) regulates stormwater runoff from municipal separate storm sewer systems (MS4s) by using National Pollutant Discharge Elimination System (NPDES) permits. In Arizona, this program is implemented by ADEQ and referred to as AZPDES (Arizona Pollutant Discharge Elimination System).

This SWMP is developed and implemented as a requirement of ADEQ's General Permit for Stormwater Discharges from Small MS4s to Protected Surface Waters, No. AZG2021-002 (Permit). The current MS4 Permit became effective on September 29, 2021, and was modified on September 16, 2022. A copy of the MS4 Permit is included in Attachment L: MS4 Permit.

This SWMP has been developed in accordance with 40 CFR Part 122; Arizona Revised Statutes (ARS) Title 49, Chapter 2, Article 3.1; and Arizona Administrative Code (AAC) Title 18, Chapter 9, Articles 9 and 10.

Setting

Cottonwood is in Yavapai County in central Arizona. Based on the 2020 census, Cottonwood has a population of 12,029 people and is anticipated to double by 2050. University of Arizona Cooperative Extension classifies Cottonwood as a semi-desert climate with an average annual rainfall of just over 12 inches. Most of the precipitation in the region occurs during the summer with a secondary wet season in the winter. In the summer, moist tropical air moves from the Gulf of Mexico and the Pacific Ocean into the area, bringing brief but heavy monsoonal thunderstorms. Fall is typically dry, with occasional precipitation delivered by the fringes of hurricanes and tropical storms. Winter precipitation generally comes from moisture from the Pacific that moves in from the west coast. Spring tends to be the driest season, with very little precipitation until monsoon moisture arrives around mid-summer. Over the past several decades of drought in the southwest, the seasonal patterns have been altered resulting in a decreased frequency of monsoon storm events and increased intensity.

How to use this Document

This SWMP is generally organized to reflect the structure and requirements of the Permit as well as the real-world implementation of the City's actions to reduce surface water pollution. It is also a living document, reviewed at least annually and updated as needed to reflect changes in stormwater management.

This SWMP is a guiding document for City staff and provides transparency to the public. The City of Cottonwood encourages the public to review this plan, provide comments, ask questions, and engage in reducing stormwater pollution in daily life.

The MS4 program and its enabling regulations can be highly technical. An effort has been made to ensure this document is accessible to the general public, but technical terminology and acronyms will still be found throughout. Attachment A: Acronyms & Definitions has been provided as a reference for these terms.

MS4 Permit Requirements

Throughout this document, summaries of Permit requirements specific to a relevant section are provided in information boxes like the one below. For the full, official requirements see the Permit section referenced. The currently effective MS4 Permit can be downloaded from ADEQ at https://azdeq.gov/PhaseIIMS4 or found in Attachment L: MS4 Permit.

4.0 Stormwater Management Program

> The Permit requires the development, implementation, and enforcement of a program to "reduce the discharge of pollutants from the MS4 to the maximum extent practicable, to protect water quality," and to satisfy the appropriate water quality requirements of federal and state laws.

Legal Authority & Enforcement

3.0 – 3.3 Stormwater Program Enforcement

> Permittees are required to adopt ordinances or other regulatory mechanisms that provide them with the authority to regulate pollutant discharges into the permittee's MS4 and to enforce those regulations. The Permit also requires development and implementation of an Enforcement Response Plan that details the permittee's approach to enforcing its stormwater regulations.

Cottonwood City Code chapter 13.24 (included in Attachment I: Ordinances) establishes the City's stormwater policy and governs discharge prohibitions, stormwater requirements for City-issued permits, watercourse protection, and enforcement of local surface water regulations. City Code 15.40 details requirements for stormwater detention on new development and redevelopment projects. The Cottonwood Engineering Design Standards Manual establishes technical requirements for stormwater detention, erosion and sediment control on construction sites, and post-construction stormwater treatment.

Enforcement

The following individuals have been designated by the City Manager to support and enforce stormwater provisions of the City Code and SWMP:

- The Police Department has two full-time Code Enforcement Officers who investigate and enforce the City's codes and ordinances regarding illicit discharges to the City's MS4.

- The Engineering Inspectors have been designated by the City Manager to inspect construction sites and react to complaints from residents that are general in nature. They also consult the City's Stormwater Team for technical guidance.

The City has an Enforcement Response Plan (ERP) that outlines a set of escalating enforcement measures the City follows to enforce its relevant stormwater ordinances. Escalation measures presented in the ERP are briefly described below and the ERP is presented in Attachment C: Enforcement Response Plan:

- Verbal warning
- Written warning
- Notice of Violation
- Civil Citations
- Criminal Penalties

If the violator does not take sufficient actions to cease and mitigate violations of the City Code, the City proceeds with the abatement process described in the City Code. City maintenance performs the minimum corrective actions to restore compliance with the SWMP and the violator is held responsible for the associated costs to reimburse the City.

Departments and Personnel Responsible

The City of Cottonwood's MS4 management is primarily housed in the Public Works Department. The staff contacts responsible for program oversight are the City Engineer and Stormwater Specialist, who coordinate efforts across City departments to achieve compliance with the Permit and applicable federal, state, and local regulations.

Other City departments and personnel are mentioned throughout this SWMP where specific duties are delegated elsewhere. For additional details, see Attachment C: Enforcement Response Plan and Attachment: E Organization Chart and Responsibilities.

Receiving Waters

Surface Water Quality Standards

5.0 – 5.2 Water Quality Standards

> In addition to requiring permittees to reduce the discharge of pollutants to the maximum extent practicable, the Permit stipulates that permittees take actions to prevent discharges from the MS4 from causing or contributing to an exceedance (or violation) of the state's SWQS.

ADEQ has established a list of "designated uses" for all regulated water bodies in the state. These designated uses determine the Surface Water Quality Standards (SWQS) a stream or lake must achieve. See ADEQ's Surface Water Monitoring and Assessment webpage for more information.

The designated uses assigned to receiving waters in Cottonwood's MS4 include:

- AWW: Aquatic and wildlife (warm water)

- AWEDW: Aquatic and wildlife (Effluent dependent water)
- FC: Fish consumption
- FBC: Full-body contact
- PBC: Partial body contact
- AGI: Agricultural irrigation
- AGL: Agricultural livestock watering

A water body that fails to meet the SWQS is listed as "Impaired" for a given pollutant of concern. For impaired waters, ADEQ drafts a Total Maximum Daily Load (TMDL), which assesses how much pollution the water body can receive and still achieve its SWQS. The TMDL establishes targets for each entity that contributes to the water body's impairment, called Waste Load Allocations (WLAs).

List of Receiving Waters

4.1.1 List of Protected Surface Waters

> The Permit regulates discharges from the MS4 to protected surface waters which under Arizona state law includes Waters of the United States (WOTUS) and waterbodies on ADEQ's State Protected Waters List. It requires listing all protected surface waters and a summary of details regarding their water quality.

Protected surface waters within Cottonwood City Limits include:

Receiving Water Name	SWQS Classification	Impairments & Pollutants of Concern	Applicable TMDLs	# MS4 Outfalls
Del Monte Wash	AWEDW, PBC	None	N/A	1
Verde River	AWW, FC, FBC, AGI, AGL	*E. coli*	No	0
Black Canyon Creek	AWW, FC, FBC	None	N/A	0
Spring Creek	AWW, FC, FBC, AGI, AGL	*E. coli*	Oak Creek (2010)	0
Coffee Creek	AWW, FC, FBC, AGL	None	N/A	0

At this time, the only protected surface water that receives discharges directly from Cottonwood's MS4 is Del Monte Wash. Other waters within the City's incorporated limits are included here for reference or because they are expected to receive stormwater discharges from the MS4 in the future.

In 2021, The City of Cottonwood annexed land including segments of Spring Creek and its tributary Coffee Creek. As of 2022, this land is undeveloped ranch land and there is no City-owned storm drainage infrastructure, so this annexation is not yet a part of Cottonwood's MS4. Development plans are being drafted for this annexation but have not yet been approved by the City. Coffee Creek is not listed for any impairment. Spring Creek is listed as impaired for *E. coli* and is included in the Oak Creek TMDL.

Black Canyon Creek falls within Cottonwood City Limits and there is a City street within its drainage area; however, no outfalls currently discharge to Black Canyon Creek.

The Verde River is the largest water body in the Cottonwood area. At this time, no outfalls have been identified that discharge directly to the Verde from Cottonwood's MS4.

Minimum Control Measures

6.0 – 6.6 Minimum Control Measures

Minimum Control Measures (MCMs) make up a large portion of the MS4 Permit requirements and guide the majority City's day-to-day stormwater management activities. The Permit specifies 6 MCMs that permittees must implement as a part of their Stormwater Management Program:

6.1 Public Education and Outreach
6.2 Public Participation and Involvement
6.3 Illicit Discharge Detection and Elimination (IDDE) Program
6.4 Construction Activity Stormwater Runoff Control
6.5 Post-Construction Stormwater Management in New Development and Redevelopment
6.6 Pollution Prevention and Good Housekeeping for Municipal Operations

MCM 1: Public Education and Outreach

6.1 Public Education and Outreach

The first Minimum Control Measure requires permittees to implement a program that is designed to educate the public about stormwater pollution in the MS4 with the intent of empowering members of the community to take personal action in improving surface water quality. It requires establishing target audiences from the general public and business sector and defining specific, relevant topics to address with each audience.

The City of Cottonwood utilizes a variety of media outlets to reach diverse communities in and around the MS4, increase public knowledge regarding stormwater pollution, and change the behavior of the public to improve water quality. An informed and engaged public can significantly contribute to the success of the stormwater management program by empowering community members to incorporate good water quality practices into their daily lives and encouraging them to report pollution concerns. To reach the broadest audience in our community, some publications developed under this MCM are bi-lingual.

Target audiences, outreach topics, and methods of distribution are reviewed annually and updated as needed to improve the effectiveness of the program. In reviewing education and outreach effectiveness, the City considers the public's response to outreach methods. Education and outreach efforts are documented in the City's 2NDNATURE database, 2NFORM.

General Public Target Groups

6.1.1 General Public Target Groups

General Public Outreach: *Social Media Outreach*

The City distributes information about stormwater-related issues to City residents via social media platforms. Topics include pet wastes, culvert maintenance, storm drain identification, household pollutants, etc. Social media outreach messages are targeted based on the current season and key local issues identified by stormwater staff.

General Public Outreach: *Print Materials*

The City will develop printed materials for distribution to the general public. Materials may include the City's stormwater hotline and the types of discharges to report. Other topics for printed material focus on control measures for pet waste, trash/litter, household hazardous waste, pesticides, herbicides, fertilizers, automotive fluid waste, nutrients, dirt and sediment, yard waste, and illegal discharges and improper disposal of solid waste. Brochures are distributed at City department customer counters, public meetings, and events and will be available for download on the stormwater page on the City's website.

General Public Outreach: *Municipal Website*

The City provides information on the main webpage to disseminate information about the stormwater pollution prevention program to the public. The website provides access to previous stormwater articles published in the *SHOP Cottonwood* newsletter as well as other relevant information such as:

- Stormwater informational fact sheets and brochures for businesses and the general public
- Most recent SWMP and NOI
- Links to applicable ADEQ and EPA websites

Business Sector Target Groups

6.1.2 Business Sector Target Groups

General Business Outreach

The City engages with a wide variety of businesses during illicit discharge investigations. Businesses of all kinds have the potential to contribute to stormwater pollution, and the enforcement process for IDDE investigations is an opportunity for the City to connect with businesses, educate them on key pollutants that they might generate, and provide an opportunity to achieve voluntary compliance.

Construction Operator Outreach

The City provides real estate developers, engineers, and construction operators with education on City and state stormwater regulations as well as stormwater best practices during the permitting process and inspections on active construction sites.

MCM 2: Public Participation and Involvement

6.2 Public Participation and Involvement

The Second Minimum Control Measure lays out requirements for the Permittee to provide opportunities for the public to engage in reviewing and implementing the SWMP. The SWMP, as well as all MS4 annual reports, need to be available to the public online and in person, and public involvement activities need to comply with state and local public notice requirements. A key provision of MCM 2 is the expectation that the Permittee provide and publicize a system for the public to report suspected pollution and stormwater violations to the Permittee.

The City of Cottonwood invites residents, visitors, businesses, and other members of the public to engage in any of the practices described below. We are always accepting input on additional measures to minimize stormwater pollutants.

Annual Reports and Updates to the SWMP are posted on the City's stormwater webpage within 30 days after submitting them to ADEQ.

Community Reporting

The City encourages community members to report suspected stormwater pollution, illegal dumping, and other surface water concerns through the stormwater hotline (**928-340-2772**) or to stormwater@cottonwoodaz.gov. Residents are encouraged to report the following types of information on the stormwater hotline:

- Leaking or blocked stormwater systems
- Dry weather discharges that may contain a pollutant
- Silt and sediment runoff from poorly controlled construction sites
- Chemical dumping
- Information on malfunctioning septic systems

When a complaint is reported to the hotline or email address, the City requests the location of the incident, the type of incident, contact information, and any additional relevant information. The complaint is then routed to the proper personnel for further investigation. See Illicit Discharge Detection and Elimination for more information on how complaints are handled.

Community Cleanup

In recent years, the City started offering an annual community cleanup opportunity. For one week, the Cottonwood transfer station (operated by Waste Management) is opened for free dumping of all non-hazardous waste. The program has been highly successful, collecting on average 284,000 pounds (142 tons) of trash each year.

Adopt-A-Street Program

The City plans to sponsor an Adopt-A-Street Program. The program will provide residents, businesses, and community groups with the opportunity to directly participate in the reduction of pollutants that

may impact stormwater quality by adopting a street segment to clean up. This program has not yet been funded, but will hopefully be implemented in the near future.

MCM 3: Illicit Discharge Detection and Elimination (IDDE) Program

6.3 Illicit Discharge Detection and Elimination Program
6.3.2 Enforcement Procedures
6.3.3 Statement of IDDE Program Responsibilities

> Minimum Control Measure 3 requires permittees to develop and implement a program to identify and eliminate illegal contributions of pollutants to the MS4 as well as unauthorized connections to the storm drain system. IDDE is a fundamental piece of any MS4 management program that, at its core, is about finding new sources of pollution and taking actions to mitigate them. IDDE can be a challenge for municipalities due to the diversity of potential pollutant sources that must be addressed, but the program is key to reducing pollution from otherwise unregulated sources.

An illicit discharge is defined under Cottonwood City Code chapter 13.24 as "any discharge to the MS4 that is not composed entirely of stormwater, with some limited exceptions (see Allowable Non-Stormwater Discharges below). City Code also prohibits illicit connections, which include "any manmade conveyance connecting an illicit discharge directly to an MS4".

To effectively implement its IDDE program, the City relies on reports from citizens and staff across all departments to identify violations. City stormwater staff investigate these reports and determine appropriate enforcement and mitigation actions. Illicit discharges and connections are also identified through visual screening of outfalls during dry and wet weather and inspections of construction and post-construction stormwater controls (see MCM 4 and MCM 5).

When an illicit discharge is reported to or identified by City staff, stormwater personnel follow the Standard Operating Procedures (SOP) for IDDE, described in full in Attachment K: IDDE SOP. Generally, these procedures include:

- If dry weather flow is observed and the City is unable to identify the source of the discharge, collect samples for laboratory analysis, as appropriate.
- If the discharge has the potential to be hazardous, the City engages its emergency response personnel and a hazardous waste contractor to handle the site and discharges.
- If a discharge is found to be illicit, the City notifies the property owner and/or other responsible parties to cease such discharge and/or remove any illicit discharge within 2 calendar days. Enforcement actions can take place at any time following the detection of an illicit discharge or connection.
- City personnel revisit illicit discharge sites as needed until the discharge has ceased and mitigation has been completed. The City also performs a follow-up inspection within 1 year of resolution of the illicit discharge case to ensure it has been eliminated.

IDDE enforcement practices are detailed in Attachment C: Enforcement Response Plan.

6.3.4 IDDE Reporting

As a part of its MS4 Annual Report to ADEQ, the City reports all incidents of suspected illicit discharges that it identifies. Data submitted in this report include:

Date incident reported/discovered	Date City response began
Date City response completed	Did the discharge reach a protected surface water?
Incident location	Pollutants discharged/suspected
Source of discharge	Correction method(s)

Allowable Non-Stormwater Discharges

6.3.6 Non-Stormwater Discharges

Cottonwood City Code includes provisions for allowable non-stormwater discharges. According to City Code Section 13.24.080 the following non-stormwater discharges to the MS4 are allowed when conducted in accordance with 40 CFR 122.26(d)(2)(iv)(B)(1):

Water line flushing	Landscape irrigation	Diverted stream flows
Rising ground waters	Uncontaminated groundwater infiltration to separate storm sewers	Uncontaminated pumped groundwater
Discharges from potable water sources	Foundation drains	Air conditioning condensation
Irrigation water	Springs	Water from crawl space pumps
Footing drains	Lawn watering	Individual residential car washing
Non-commercial, charity car washes	Discharges from riparian habitats and wetlands	De-chlorinated swimming pool and spa discharges
Street wash water	Discharges of flows from fire-fighting activities	Building washing without added cleaning products
Auto rinsing without added cleaning products		

These discharges are allowable *only* if they do not contain any pollutants. The City investigates non-stormwater discharges listed above and if they are determined to be a source of pollutants, they are considered an illicit discharge. Individuals producing such discharges must be able to demonstrate through testing, records, plans, and other documents that their discharge is allowable. The City may require such demonstration for any facility connected to the MS4 directly or indirectly. All other non-stormwater discharges to the MS4 are prohibited.

Storm Sewer Mapping

4.1.2 Contents of the SWMP
6.3.1 Storm Sewer Mapping

> The Permit requires permittees to maintain a current map of their MS4 infrastructure, outfalls, and protected surface waters. The map must be sufficiently detailed to use for identifying and isolating illicit discharges.

Cottonwood completed a Drainage Master Plan in 2020 that included mapping an inventory of storm drain infrastructure. This MS4 map has been migrated into Cottonwood's 2NDNATURE database, 2NFORM, and is used for tracking illicit discharge investigations. The map includes:

- Protected surface waters that receive discharges from the MS4
- Outfalls
- Surface and subsurface stormwater conveyances
- Detention basins, green infrastructure, and other stormwater controls
- Satellite imagery
- Topographic data
- Streets data

The City updates the MS4 map as new infrastructure developments are completed and as Cottonwood annexes new land into its city limits. City staff also update the map whenever inaccuracies are noted in the field, typically during outfall visual monitoring, IDDE investigations, or construction and post-construction inspections.

Areas Subject to MS4

4.1.3 Contents of the SWMP

The City of Cottonwood's regulated MS4 includes those areas where City-owned and operated roads with drainage systems, catch basins, ditches, storm drains, and other drainage infrastructure convey stormwater to waters on the state Protected Surface Water List (PSWL) or to waters of the U.S. (WOTUS), listed in Receiving Waters, above. This includes most of the area within Cottonwood City Limits, but excludes land without storm drainage infrastructure (i.e. in the Spring Creek and Black Canyon Creek watersheds). Also excluded from Cottonwood's regulated MS4 are areas where the streets and storm drain systems are privately owned and operated, except at the location where those areas discharge to the MS4 or are subject to Cottonwood's post-construction stormwater management regulations.

Known Discharges Contributing to SWQS Exceedances

4.1.4 Contents of the SWMP

There are no ongoing discharges known to contribute to the *E. coli* exceedances at the Verde River or Spring Creek. Many possible sources of *E. coli* exist in the Verde River watershed, but a comprehensive

assessment has not yet been completed to determine which sources are the primary contributors to its impairment.

E. coli is a common bacterial pathogen that lives in the gut of warm-blooded organisms and typical sources of *E. coli* in waterways can include failing or leaking sewer and septic systems, pet and livestock waste, and wildlife.

Visual Monitoring Program

Visual Monitoring 6.3.7

> The Permit requires a program to visually assess outfalls from the MS4 to protected surface waters during both dry and wet weather. Permittees need to assess all their outfalls over the course of the 5-year permit cycle, making observations that characterize the discharges from their outfalls and identify illicit discharges or evidence of suspected illicit discharges.

The City conducts visual monitoring during dry and wet weather, inspecting 20% of MS4 outfalls each year and 100% of outfalls during the Permit cycle. Wet weather visual monitoring may be conducted at the same time as analytical monitoring.

Observations collected at the time of inspection include:

- Outfall ID
- Personnel conducting inspection
- Time & date
- Weather conditions
- Estimated flow rate discharging from outfall
- Apparent odor, color, clarity, debris, and floatables present
- Additional notes as relevant

If evidence of an illicit discharge is identified during a visual monitoring inspection, staff initiate an IDDE investigation and re-inspect the outfall within 1 week to ensure the discharge has ceased.

Staff Training

6.3.9 Staff Training

The City trains relevant staff in Illicit Discharge Detection, with a focus on personnel who are likely to encounter illicit discharges on a day-to-day basis. Priority staff for IDDE training include: Street Maintenance, Parks and Recreation, Construction Inspectors, Code Enforcement Officers, and Utilities staff. A complete description of Cottonwood's MS4 training program can be found in MCM 6.

AZPDES Non-Filer Identification

6.3.10 AZPDES Non-Filers

> The Permit requires a monthly report to ADEQ when the Permittee identifies entities that it suspects are required to obtain AZPDES permit coverage but have not.

As part of its development plan review process, construction sites eligible for CGP coverage are required to submit proof of coverage prior to permit issuance. Proposed industrial projects that may be eligible for MSGP coverage are notified of permit requirements during the plan review processes. The City tracks active industrial facilities or construction sites suspected to be lacking permit coverage under the appropriate AZPDES permit in a spreadsheet and emails this list of suspected AZPDES non-filers to ADEQ monthly.

Tools utilized to identify whether facilities are covered under an AZPDES permit include ADEQ's MegaSearch database and ADEQ eMaps.

IDDE Program Progress

6.3.8 Indicators of IDDE Program Progress

The City's IDDE program is evaluated on an ongoing basis. Utilizing 2NFORM, staff track all suspected, reported, and confirmed cases of illicit discharge, as described in Attachment F: 2NFORM Inspection Reports. Tracking includes sufficient information (reported annually to ADEQ) to determine the effectiveness of the City's response to illicit discharge incidents. During the annual program evaluation, stormwater staff review past years' IDDE records and update procedures to address excess time to case resolutions, unsatisfactory case resolution, and any other program issues that are identified.

MCM 4: Construction Activity Stormwater Runoff Control

6.4 Construction Activity Stormwater Runoff Control

> MCM4 requires the City to regulate discharges from construction activity, one of the biggest sources of stormwater pollutants. This is to be accomplished through enforcing design plan standards, inspection and enforcement of erosion and sediment controls on construction sites, and educating and engaging construction operators and the general public.

The City's construction stormwater program emphasizes minimization of sediment discharge, which is the most common pollutant generated by construction activity and can be a vector for other pollutants including nutrients, bacteria, and a range of chemicals. Additional pollutants targeted by the program include but are not limited to motor oil, concrete washout, and trash.

6.4.2.a Sediment and Erosion Control Ordinance

The City of Cottonwood requires construction sites to comply with the state AZPDES Construction General Permit, Cottonwood Engineering Design Standards Manual (section 3.9), and Cottonwood City Code chapter 13.24. Stormwater controls are inspected during the City's general construction inspections. In the event of non-compliance, the City may opt to withhold inspections, issue stop work orders, withhold permit closeout and Certificates of Occupancy, take mitigation action at the expense of the contractor, or apply other enforcement mechanisms.

6.4.2.b Construction Activity Inventory

The City maintains an inventory of known construction sites within City boundaries that disturb 1 acre or more. Construction projects are managed by the City's tracking software, 2NFORM. Construction sites

are loaded into 2NFORM when project information is submitted for building permits and inspection results and enforcement actions are tracked through the life of each project.

Plan Review Procedures

6.4.2.b-c Construction Activity Program Components

> Permittees are required to inventory land-disturbing construction activities that are larger than one acre and review their site design plans for the use of stormwater controls during and after construction. MCM 4 details post-construction stormwater controls.

As a routine part of development review, the City reviews construction site plans, including the required construction Stormwater Pollution Prevention Plan (SWPPP) / Erosion Control Plans (ECPs). The Stormwater Checklist (included in Attachment F: 2NFORM Inspection Reports) is used to verify the Stormwater Control Measures (SCMs), also known as Best Management Practices (BMPs), for the site are appropriate.

The City also verifies contractors have obtained Construction General Permit (CGP) coverage by requiring all target construction sites to submit the contractor's NOI application form and certified mail receipt or ADEQ's Authorization to Discharge (ATD) as part of the permit application process. A grading permit will not be issued by the City until the NOI application form and certified receipt or ADEQs ATD are submitted along with other appropriate documentation.

In addition to the SWPPP and requirements of the CGP, the City also requires that construction sites follow the specifications contained in the City of Cottonwood Engineering Design Standards Manual and the Yavapai County Drainage Criteria Manual.

Inspection and Enforcement Procedures

6.4.2.d-i Sediment and Erosion Control Inspections

> Permittees are required to have written procedures for inspection and enforcement of land-disturbing activities larger than one acre. Implementation of these procedures is required for both private and public construction activities. All construction sites need to have adequate sediment and erosion control measures that keep soil stabilized and prevent pollutants from running off site in stormwater.

To verify construction site operators are in compliance with the City Code, the City conducts construction site inspections of known construction sites and documents the inspection in 2NFORM, 2NDNATURE's database, as detailed in Attachment F: 2NFORM Inspection Reports. City inspectors verify compliance and confirm stormwater controls are installed, maintained, and functioning properly. Inspectors also ensure construction operators have taken appropriate precautions to control wastes, including proper disposal of concrete washouts, discarded building materials, paints, fertilizers, chemicals, litter, equipment leaks, and sanitary wastes. The City inspectors can refer violations to Code Enforcement, who have the authority to cite construction site operators found to be out of compliance in accordance with the provisions of the ERP.

The City collects public reports of discharges from construction sites via the stormwater hotline and the stormwater notification email address.

6.4.2.f Construction Site Inspection Frequency

An initial construction site inspection is conducted by the Stormwater Specialist within one month of the start of construction. At a minimum, sites are then inspected quarterly and upon completion of construction but before final approval and issuance of the certificate of occupancy by the City. The Stormwater Specialist may conduct more frequent inspections to ensure compliance is achieved by construction site operators. In establishing increased inspection frequencies for a construction site, the City will consider the site's phase of construction, proximity to impaired waters, area of land disturbed, history of non-compliance at the site or by the operator, and other factors that may lead to an increased risk of pollutant discharge from the site to the MS4 or protected surface waters.

Some construction sites may be eligible for reduced inspection frequencies at the City's discretion. These sites will still be inspected within a month of the start of construction and prior to final approval, but periodic inspections will be conducted at a minimum every 6 months instead of quarterly. The City documents any sites under reduced inspection frequency in its construction inspection documentation in 2NFORM. Sites eligible for reduced inspection frequencies must be in good standing with the City and meet all the following standards:

1. The nearest downstream receiving water is ephemeral;
2. The construction activity occurs on a site designed so that all stormwater generated by disturbed areas of the site exclusive of public rights-of-way is directed to one or more retention basins that are designed to retain the runoff from an extreme event. For these purposes, "extreme event" means a rainfall event that meets or exceeds the local one-hundred-year, two-hour storm event as calculated by an Arizona registered professional engineer using industry practices;
3. The owner or operator complies with erosion and sediment control measures;
4. The owner or operator maintains the capacity of the retention basins; and
5. Construction conforms to the standards prescribed by the MS4 Permit and all City of Cottonwood ordinances.

Sites within ¼ mile of protected surface water(s) impaired for turbidity or suspended sediment concentration (SSC) are inspected weekly and within 24 hours of each storm event of 0.5 inches or greater within 24 hours. No protected surface waters in or near the Cottonwood MS4 are impaired for turbidity or SSC.

Where a construction inspection finds violations of City stormwater provisions, the City will take enforcement actions needed to return the site to compliance, in accordance with the Enforcement Response Plan. A re-inspection will be scheduled to ensure compliance is achieved.

6.4.3 Personnel Qualifications

The Public Works Department trains the Engineering Inspectors annually on erosion and sediment control inspections and enforcement procedures. Training includes inspection of erosion and sediment control measures, identification of stormwater runoff issues at construction sites, enforcement of stormwater construction regulations, and documentation of inspections and enforcement. A complete description of Cottonwood's MS4 training program can be found in MCM 6.

The City is also looking into sending its stormwater staff and construction inspectors to ADOT Erosion Control Coordinator (ECC) Training.

Operator Education and Public Involvement

6.4.4 Construction Activity Operator Education & Involvement

The City educates construction operators and developers during the plan review and inspection processes. The City has also developed educational pamphlets that are distributed with new permit applications.

MCM 5: Post-Construction Stormwater Management in New Development and Redevelopment

6.5 Post-Construction Stormwater Management in New Development and Redevelopment

> Minimum Control Measure 5 requires Permittees to implement a program to address stormwater runoff from completed new development and redevelopment projects. This program must include ordinances that regulate discharge of pollutant from developed sites through structural and non-structural (i.e. maintenance practices, proper storage of materials, etc.) practices. It also requires an inventory of post-construction stormwater controls as well as processes, including inspections and enforcement, to ensure controls are properly maintained and operational long-term.

Cottonwood's Engineering Design Standards Manual (EDSM, section 3.10) requires development projects that disturb one acre or more of land, or are part of a common plan of development, to treat the first flush of stormwater runoff from the site. In addition, EDSM section 3.8 and City Code 13.24 require stormwater detention to ensure that post-construction flows are not increased over pre-development conditions. Enforcement for violations of the City's post-construction stormwater control requirements is carried out as described in Attachment C: Enforcement Response Plan.

6.5.3 Site Plan Review

The City reviews site plans for post-construction stormwater quality controls reviewed against the Stormwater Ordinance, Grading, and Retention Ordinances as well as the Yavapai County Drainage Criteria Manual. Site plan reviews are tracked in the City's plan review tracking system.

6.5.4 Post-Construction Stormwater Control Inventory

Engineering Services maintains a paper file inventory of approved, in-construction, and installed stormwater controls. The inventory has been migrated into the 2NDNATURE's database, 2NFORM, and is regularly updated. The inventory includes all sites with post-construction SCMs as well as relevant attachments: operations and maintenance agreements, as-built site plans, inspection records, etc.

6.5.5 Operation and Maintenance of Post-Construction SCMs

All post-construction SCMs are required to be maintained by the owner except for certain regional detention basins accepted by the City on a case-by-case basis. All sites with permanent SCMs are

required to submit an Operation and Maintenance Plan for approval by the City Engineer as well as a Standard Operation and Maintenance (O&M) agreement, in which the property owner certifies that they will maintain their SCMs. The O&M agreement follows the property regardless of changes in property ownership.

Inspections of privately owned post-construction (structural) SCMs that discharge to the MS4 are performed annually and recorded in 2NFORM (see Attachment F: 2NFORM Inspection Reports).

MCM 6: Pollution Prevention and Good Housekeeping for Municipal Operations

6.6 Pollution Prevention and Good Housekeeping for Municipal Operations

Minimum Control Measure 6 requires the Permittee to minimize the discharge of pollutants from its own operations. Key components of MCM 6 include staff training, implementation of measures to control pollutant runoff from all city-operated streets and municipal facilities within the MS4, and proper removal and disposal of pollutants from the storm sewer system itself. All municipal facilities and activities that discharge pollutants need to be inventoried and have established operations and maintenance procedures that are designed to minimize pollution.

Any facilities that are covered under a different AZPDES permit (for example an MSGP industrial stormwater permit) are specifically exempt from the requirements under MCM 6.

The City of Cottonwood takes action to reduce the pollutants entering the storm drain system through routine activities in the operation and maintenance of drainage systems, roadways, parks and open spaces, and other municipal operations. Pollutant discharge is achieved primarily through source controls, which minimize the generation of pollutants, and good housekeeping practices, which minimize the discharge of pollutants by reducing exposure to stormwater.

Pollution Prevention in Municipal Operations

6.6.1 Control Measures for Municipal Discharges

City-operated streets and parking lots constitute a large area of impervious surfaces, known to collect significant amounts of sediment, trash, and oils. To address these pollutant sources, the City sweeps major collector streets monthly and other streets and parking lots as needed. Waste removed from street sweeping is collected in roll-off dumpsters and hauled to the landfill.

Street maintenance staff also inspect culverts and catch basins on a weekly schedule to identify maintenance needs and remove accumulated debris. When staff encounter dry weather flows or suspected illicit discharges, they report these incidents to stormwater staff for IDDE investigation. Street maintenance staff clean culverts and catch basins annually and as needed after notable storm events.

The City operates a number of post-construction (structural) SCMs and inspects at least 20% of these each year, documenting inspections in 2NFORM, and performing maintenance as the need is identified in inspections.

6.6.2 Operation and Maintenance of Pollution Prevention and Good Housekeeping Practices

The City maintains an inventory of City-owned and operated facilities in the 2NDNATURE database, 2NFORM. Municipal facilities are prioritized for inspection based on their potential to discharge pollutants and their proximity to receiving bodies. A list of City-owned facilities and their inspection priority can be found in Attachment D: Municipal Facility List. The stormwater compliance facility inspection forms being utilized in 2NFORM are detailed in Attachment F: 2NFORM Inspection Reports. Several departments manage City facilities and operations:

- Public Works manages street maintenance operations and capital improvement projects, as well as providing maintenance for City buildings used by all departments.
- Public Works also maintains 105 acres of parks and natural open space throughout the City.
- Utilities manages water and wastewater operations
- City-owned vehicles and equipment are maintained by the department responsible for the equipment, typically at a local commercial repair shop. Vehicle washing is conducted within wash bays at the Public Works Yard. Wash water is collected and treated onsite in an oil-water separator before discharging to a sanitary sewer.
- The Cottonwood transfer station is operated by Waste Management.

Stormwater staff perform inspections on all City facilities, inspecting all facilities at least once per year and inspecting higher priority facilities more often. Facility prioritization is subject to change based on inspection findings.

Facility Priority	Inspection Frequency
High	Once per Quarter
Medium	Twice per Year
Low	Once per Year

Several City-owned facilities are covered by ADEQ's Multi-Sector General Permit (MSGP), which regulates stormwater discharges associated with industrial activity, and Aquifer Protection Permits (APP), which regulates groundwater discharges from certain activities. The Mingus Wastewater Treatment Plant also has an individual AZPDES permit authorizing the discharge of treated wastewater into Del Monte Wash. These permitted facilities are subject to stormwater management requirements that are largely more stringent than those of the MS4 Permit, and each requires its own Stormwater Pollution Prevention Plan (SWPPP), which is implemented outside the scope of this SWMP. These facilities include:

Facility Name	Responsible Department	Permit Type	Authorization #
Cottonwood Regional Airport	Airport Department	MSGP	AZMS96338
Mingus Wastewater Treatment Plant	Utilities Department	MSGP Individual AZPDES Discharge Permit	AZMS81808 AZ0024716

Facility Name	Responsible Department	Permit Type	Authorization #
Cottonwood Wastewater Collections	Utilities Department	APP	P-101434

Training

6.3.9. IDDE Staff Training
6.4.3 Construction Inspection Personnel Qualifications
6.6.2.f Pollution Prevention and Good Housekeeping Practices

> Sections throughout the Permit require staff training. These requirements are intended to establish awareness of stormwater pollution and regulations throughout the Permittee's organization, to encourage a culture of pollution prevention activities, and to engage City staff in identifying and reporting illicit discharges.

The City of Cottonwood has a program to train all municipal employees who have a role in stormwater pollution reduction. Cottonwood provides three training courses to address the primary roles staff have in identifying pollutant sources, minimizing pollutant generation in daily operations, and inspecting private and public facilities and operations. Training may be provided to City contractors at the discretion of the Stormwater Specialist. All formal trainings are documented by asking staff to sign in and maintaining copies of sign-in sheets in the digital documentation for this SWMP.

Types Of Training

The following sections describe the stormwater pollution prevention courses conducted by the City, summarized in the table below.

Course	Audience	Frequency	Content
IDDE	Construction Inspectors Utilities Staff Street Maintenance Staff Code Enforcement Officers Facilities Supervisors Parks Maintenance Staff	Annual	General Stormwater Awareness Illicit Discharge Detection
Construction Stormwater Management	City Engineers Construction Inspectors	Annual	Facility Inspection Pollution Prevention Practices
Post-Construction Stormwater Management	Stormwater Personnel Construction Inspectors Code Enforcement Officers	Annual	Basics Enforcement/Forms Construction Inspections

Illicit Discharge Detection and Elimination (IDDE)

The City provides training to raise awareness among municipal employees of stormwater pollution, its sources, and its impacts. This course focuses on teaching staff how to identify illicit discharges and illicit

connections and encouraging employees to report incidents of illicit discharge they may encounter as they go about their work and daily life.

Construction Inspection

The City trains construction inspectors annually inspecting stormwater controls on construction sites and taking appropriate enforcement actions. This course is designed to prevent or reduce pollutant runoff from construction sites. Also, this course is provided to plan review staff responsible for identifying SCMs.

Post-Construction Inspection

Training is provided for employees responsible for conducting post-construction site inspections and applying enforcement actions. The goal of the program is to prevent or reduce pollutant runoff from new development and redevelopment projects. Public Works stormwater staff are trained at least once per permit cycle on performing inspections on post-construction stormwater components.

Monitoring and Assessment Program

7.0 Monitoring Requirements
7.1 Monitoring and Assessment Program

> The Permit requires Permittees to conduct analytical monitoring to assess the quality of stormwater discharges from the MS4 to Protected Surface Waters. Two categories of monitoring are required: stormwater characterization monitoring and monitoring of discharges to Impaired Waters, Not-Attaining Waters, and Outstanding Arizona Waters. Additional monitoring may be required by written notice from ADEQ or as a part of a TMDL implementation.

The City has a Sampling and Analysis Plan (SAP) that outlines the process and procedure for monitoring discharges to Protected Surface Waters. The current Sampling and Analysis Plan is found in Attachment J: Sampling and Analysis Plan.

Records of all stormwater monitoring are maintained in digital form and are available upon request.

7.4.1 Discharges to impaired or not-attaining waters

The City of Cottonwood's MS4 does not currently discharge directly to any impaired or non-attaining waters. At this time, the City is not required to sample for *E. coli*, the primary pollutant impairing water surface quality in the region, but it may conduct analytical monitoring at its discretion to characterize discharges, determine pollutant sources, monitor in-stream water quality, or otherwise collect data to inform management decisions.

Stormwater Characterization Monitoring

7.2 Stormwater Characterization Monitoring Requirements

Stormwater characterization monitoring is a new requirement introduced in the 2021 MS4 Permit intended to gather baseline data on the quality of discharges from the MS4. It specifies that permittees must identify at least 3 outfalls that are "representative of stormwater pollution from the MS4". Permittees must then sample at least 1 stormwater discharge from each identified outfall within the first 3.5 years of the permit cycle.

The key distinctions between the new characterization monitoring and the existing requirement for analytical monitoring are:

- Previously, analytical monitoring was only required for discharges to impaired, not-attaining (impaired with a TMDL), and Outstanding Arizona Waters. Characterization monitoring locations are intended to be representative of the MS4, regardless of which waterway they discharge to.
- Analytical monitoring previously only needed to assess the pollutants of concern for a given receiving water. Characterization monitoring is required to analyze a list of >100 parameters per sample.

The City of Cottonwood will conduct characterization monitoring at least once during the Permit cycle. The process for characterization monitoring is detailed in Attachment J: Sampling and Analysis Plan.

Compliance with TMDLs

4.1.6 Contents of the SWMP
Appendix C: TMDL Requirements

A Total Maximum Daily Load (TMDL) is the maximum amount of a pollutant that can enter an impaired waterbody that allows the waterbody to meet water quality standards for that pollutant. TMDLs are calculated by ADEQ and published in a document approved by the EPA. TMDLs characterize the pollutant sources contributing to the water quality standard exceedance. Each pollutant source receives a Wasteload Allocation (WLA, for point sources) or Load Allocations (LA, for nonpoint sources), which establish the maximum amount of pollutants that source is allowed to contribute to comply with the TMDL. More information on TMDLs can be found on the EPA's and ADEQ's websites.

MS4 Permittees are required to take steps to comply with TMDLs and Appendix C of the Permit specifies actions that must be taken by permittees that discharge to a water body with an approved TMDL.

With the recent annexation of land around Spring and Coffee Creeks, Cottonwood City Limits now include areas subject to the 2010 Oak Creek TMDL. However, this area is undeveloped and will not be subject to the MS4 until the City owns and operates storm drainage infrastructure that discharges to Spring Creek. The TMDL does not determine a source of *E. coli* present in Spring Creek. Given that the Spring Creek watershed largely consists of ranch land, likely sources include livestock, wildlife, and possibly recreation.

The City of Cottonwood will consider the obligations of the TMDL as development plans for the region are established.

Program Assessment, Recordkeeping, and Reporting

Protocol for Annual Program Evaluation

8.1 Program Evaluation

> The Permittee is required to annually evaluate its MS4 program for compliance with the Permit, assessing whether they have achieved the Minimum Control Measure objectives and the measurable goals they've defined for their own BMPs. Permittees are to document their reasons for changing ineffective BMPs and explain why the new or updated BMPs will be more effective.

The City annually self-evaluates the SWMP for compliance with the Small General MS4 Permit. Program components are assessed for their appropriateness and effectiveness in achieving Permit requirements and addressing pollutant sources. If necessary, ineffective or infeasible program components are modified or replaced. Documentation of changes to program components, including the reasoning for modification, is maintained in Attachment H: Self Evaluation Records.

Recordkeeping

8.2 Recordkeeping
9.11 Standard Permit Conditions / Monitoring and Records

> The Permittee is required to keep all records required by the Permit for 3 years from the date permit coverage ends. This requirement covers a wide range of documents and data related to the Permittee's program. Program records are to be made available to the public.
>
> The MS4's Standard Permit Conditions provide additional record retention requirements that are more stringent than the requirement specified in 8.2.

The City will keep all records pertaining to the Permit for a minimum period of 3 years after permit coverage is terminated, expires, or is superseded by a new permit. The records include all reports, follow-up documentation, inspection records, enforcement actions, and data used in the development of the NOI.

This Stormwater Management Plan and other key documents, such as annual reports, training materials, and discharge monitoring reports are available on the City's stormwater management webpage. A hard copy of the City's SWMP is kept at the Public Works Engineering office for public viewing during normal business hours.

Annual Report

8.3 Annual Report
Appendix A: Annual Report Requirements

MS4 program annual reports are due September 30 each year, covering the prior July 1 through June 30. Appendix A provides a detailed list of questions to be answered in the online annual report.

Each year the City submits its annual report to ADEQ on or before September 30. The annual report covers the reporting period of July through June and is submitted through ADEQ's myDEQ online permitting system. During the process of completing the annual report, City personnel review the Stormwater Management Plan and arrange for updates as needed in accordance with the requirements in the Permit.

Attachment A
Acronyms and Definitions

Acronyms

The following is a list of acronyms and abbreviations that are used in this document.

AAC	Arizona Administration Code
ADEQ	Arizona Department of Environmental Quality
ARS	Arizona Revised Statute
ATD	Authorization to Discharge
AZPDES	Arizona Pollutant Discharge Elimination System
BMPs	Best Management Practices
CGP	Construction General Permit
CWA	Clean Water Act
DMR	Discharge Monitoring Report
EPA	Environmental Protection Agency
ERP	Enforcement Response Plan
GIS	Geographic Information System
IC	Illicit Connection
ID	Illicit Discharge
IT	Information Technology
IDDE	Illicit Discharge Detection and Elimination
MCM	Minimum Control Measures
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
MSGP	Multi-Sector General Permit
MWS	Master Watershed Stewardship
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
P2	Pollution Prevention
SCMs	Stormwater Control Measures
SIC	Standard Industrial Classification
SWMP	Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load

Definitions

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.

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

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.

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

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

Nonstructural SCMs - Practices that will reduce or eliminate the transfer of pollutants to stormwater and do not require the installation of permanent structural devices to treat runoff.

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.

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.

Precipitation - Any form of rain or snow.

Run-on - Stormwater surface flow or other surface flow that enters the site other than that where it originated.

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.

Secondary Containment - Structures surrounding tanks or other storage containers that are designed to catch spilled material from the storage containers. Secondary containment must provide spill containment for the contents of the single largest tank within the containment structure plus sufficient freeboard to allow for the 25-year, 24-hour storm event.

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

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

Structural SCMs - Permanent structural devices that will reduce or eliminate pollutants discharged into stormwater runoff.

Attachment B
Notice of Intent

ARIZONA DEPARTMENT
OF
ENVIRONMENTAL QUALITY

1110 West Washington Street Phoenix, Arizona 85007
(602) 771-2300 www.azdeq.gov

Permit Authorization Certificate

Authorization Number: AZSM92119

Permit Name: **AZPDES Small Municipal Separate Storm Sewer Systems (MS4s) General Permit**

LTF Number: **92119**

Permit Number: **AZG-2021-002**

Issue Date: **11/29/2021**

Coverage Issued to:

Name: **CITY OF COTTONWOOD**

MS4 Contact Information:

Name: **JAMES R BRAMBLE**

Phone: **9283402770**

Work Email: **JBRAMBLE@COTTONWOODAZ.GOV**

AZPDES MS4 Annual Permit Fee

Please note, that pursuant to Arizona Administrative Code, Title 18, Chapter 14, Article 109(C), you will be billed an annual permit fee equal to the initial fee until such time as you submit a Notice of Termination to close out your permit coverage.

Attachment C
Enforcement Response Plan

Enforcement Response Plan (ERP)

INTRODUCTION

As required by the by 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) to Waters of the United States No. AZG2016-002 (Permit), the City of Cottonwood is required to develop and implement an Enforcement Response Plan (ERP). This ERP describes the City's procedures and policies regarding enforcement of the City's municipal ordinances relating to stormwater quality, including illicit discharges. Compliance shall be achieved through progressively stricter responses as needed. The ERP includes the following items relative to the City's enforcement procedures:

- A description of the types of enforcement issued by the City.
- A description of specific strategies for escalating enforcement response, where necessary, to address persistent, repeat or escalating violations.

The basis for the City's stormwater program enforcement can be found in the following documents:

- City Code Chapter 15.40 Ord. 172 § 1, 1985 City of Cottonwood Post Construction Stormwater Detention Code
- City Code Chapter 15.44.090 Ord. 144 § 10, 1984 City of Cottonwood Illegal Discharge and Illegal Connection Stormwater Code

This ERP documents the policies and procedures in support of the documents noted above.

1.0 ENFORCEMENT PROCESS

The City's enforcement of construction stormwater violations, water quality violations and illicit discharges is authorized by multiple sections of the City's municipal code.

1.1 NEW DEVELOPMENT

For new development and redevelopment sites, the City issues Planning and Zoning, and Building Permits. Permits are issued by the Planning and Zoning and Building Safety Divisions of the Community Development Department, respectively. Prior to issuing a building permit, Building Safety staff ensure that Planning and Zoning Permits and/or other stormwater-related permits have been submitted and approved. Once development is completed, Building Safety staff ensures as-builts have been submitted and approved by the Public Works Department before issuing a Certificate of Occupancy. If issues arise during construction, the City will withhold inspections and/or Certificates of Occupancy as necessary. Withholding inspections and/or Certificates of Occupancy is found to be the most effective in achieving compliance.

1.2 ILLICIT DISCHARGES

The City has a training program to educate appropriate employees on the identification of illicit discharges. Where an illicit discharge has been identified, it is routed to Code Enforcement for investigation. The Code Enforcement Officer performs an inspection to

identify the source and pollutant being discharged. The Code Enforcement Officer then determines the appropriate enforcement response.

2.0 RESPONSE CRITERIA TO CONSIDER

Upon discovery of a violation of the City's Ordinance, the enforcement process begins by identifying the stormwater violation and determining the severity of the enforcement response. The following criteria should be considered when determining the appropriate enforcement response:

- *Effect on the Environment* - Violations that have the potential to negatively impact the City's stormwater system, private property, or washes are urgent and require expeditious action. Such violations warrant bypassing verbal warnings and moving to more aggressive actions to gain quick compliance.

- *Compliance History of the Violator* - The violator's compliance history can affect the enforcement response. Recurring violations may indicate that an operator's treatment system is inadequate, that the operator has taken a casual approach to operating and maintaining the treatment system or that an operator does not intend to comply with the ordinance. Repeated violations by the same person or company reflects egregiousness and/or willfulness.

- *Duration* - Where a violator has been issued a verbal or written warning, the compliance clock begins. Failure to complete corrective actions within the established time may indicate that escalated enforcement actions are needed to gain compliance.

- *Good Faith of the Violator* - `Good Faith' is defined as the violator's honest intention to remedy non-compliance evidenced by actions which give support to this intention. Good faith shall be demonstrated by cooperation and completion of corrective measures in a timely manner. A violator's good faith in correcting noncompliance is a factor in determining which enforcement response is suitable.

3.0 CATEGORIES OF VIOLATIONS

There are two general categories of violations:

- *Permitted violations* - These types of violations are typically construction projects holding a Building Permit that are in violation of permit conditions.

- *Unpermitted violations* - These violations include illicit discharges, illegal dumping, or land disturbances that begin without first obtaining an appropriate Permit.

The type of violation and severity of the violation sets the type of enforcement and aggressiveness of each enforcement step. The sections following describe the steps.

The Code Enforcement Officer, Building Official, or their designee may employ any combination of the following enforcement actions, and may escalate enforcement responses where necessary to address persistent non-compliance, repeat or escalating violations, or incidents of major

environmental harm. Section 2 includes criteria that can cause an enforcement action to be escalated to gain compliance and prevent damages.

3.1 VERBAL WARNINGS

For less severe violations or for first time offenders, the Code Enforcement Officer, Building Official, or their designee may issue verbal warnings that specify the nature of the violation, any required corrective action, and a time to comply with a documented verbal warning. Warnings are documented in the City's Construction Inspection/IDDE tracking system.

3.2 WRITTEN WARNING

A Corrective Order is a written warning intended for minor violations. The Code Enforcement Officer, Building Official, or their designee may issue a Corrective Order to the responsible party and/or property owner where the violation has occurred. The Corrective Order typically includes:

- The description and nature of the violations to the City's Ordinance, approved Erosion Control Plans (ECPs), and/or construction plans.
- The location of where the violations have occurred.
- A description of the steps that must be taken to rectify the violation. Steps may include the development and submittal of Corrective Action Plans, repair of measures on a construction site, immediately ceasing illicit discharges and/or repairing any damages that occurred.
- The deadline by which the repairs or remediation work must be completed to avoid escalated enforcement.
- Signature and Title of the person issuing the Corrective Order.

3.3 NOTICE OF VIOLATION

If a Written Warning has not been addressed to the satisfaction of the Code Enforcement Officer, Building Official, or their designee may issue a Notice of Violation (NOV) to the responsible party and/or property owner where the violation has occurred. Furthermore, a Notice of Violation may be the first notice to the violator for serious violations or for repeat offenders.

The NOV does not include the specific fine or penalty amount.

The NOV requires the violator to submit a written explanation of the violation and a Corrective Action Plan within a set timeframe established in the NOV. The Corrective Action Plan must be submitted by the violator to the Director of Community Development. An inspection to ensure that corrective actions have been completed is conducted by the Director, or their designee at the Directors discretion. Submission of the Corrective Action

Plan in no way relieves the violator of liability for any violations occurring before or after receipt of the NOV.

The NOV includes:

- The description and nature of the violations to the City's Ordinance, approved ECPs, and/or construction plans.
- The location of where the violations have occurred.
- A description of the ordered repair or remediation work which is necessary to bring the activity or site into compliance.
- Requirement to submit to the City's Director of Community Development within 10 days a written Corrective Action Plan to correct the violation.
- Deadline by which the repair or remediation work must be completed to avoid escalated enforcement. This becomes the expiration date of the NOV. Note that the expiration date is based upon the violator's date of receipt of the NOV.
- Signature and Title of the person issuing the NOV.

3.4 CIVIL CITATIONS

A civil citation is a monetary penalty assessed by the City to any person violating the City's Ordinance or a permit. The fine is considered punitive in nature and is not related to any specific cost borne by the City. The City shall also recover any damages to the City's stormwater system for actions taken by the City to rectify a violation or for actions taken by the City to stop illicit discharges. Civil citations are prepared and served by a Code Enforcement Officer.

Along with the civil citation, the City may request for a written Corrective Action Plan to be submitted to the City within the timeframe established in the citation. The Corrective Action Plan must include actions to be taken to bring a site or activity into compliance and must include a timeline to complete actions. The Corrective Action Plan must be submitted by the violator to the Director of Community Development. An inspection to ensure that any corrective actions have been completed may be conducted by the Director or their designee. Submission of this plan in no way relieves the violator of liability for any violations occurring before or after receipt of the NOV.

Civil citations are generally issued after the NOV expires and when corrective actions have not been completed. The amount of the penalty is determined by the magistrate court and is typically proportional to the harm caused by the violation and the City's cost to repair damages. The Magistrate's Court, with input from the Director of Community Development or their designee, will consider the following criteria when assessing penalties:

- The amount of damage to the public health and the environment.

- The amount of effort put forth by the violator to remedy this violation.
- The economic benefit gained by the violator for not obeying the law.
- Whether the civil penalty imposed will be a substantial economic deterrent to the illegal activity.
- The amount of penalty established by ordinance or resolution for specific categories of violations.
- Any unusual or extraordinary enforcement costs incurred by the City.
- Any equities of the situation that outweigh the benefit of imposing any penalty or damage assessment.

The Magistrate's Court, with input from the Director of Community Development or their designee, may also consider these additional criteria for determining penalties of violations:

- Willingness and cooperation of the violator to remedy this violation and remediate any damage.
- Whether the violation was intentional, negligent, or accidental.
- Costs incurred by the City for any administrative or remediation costs, including the investigative and monitoring activities. This is often computed in terms of number of man-hours necessary to deal with the problem.
- Prior violations for this violator or at this location.

3.5 CRIMINAL PENALTIES

Criminal prosecution is a formal process of charging individuals and organizations with violations of ordinance provisions that are punishable, upon conviction, by fines and/or imprisonment. Criminal prosecution is an appropriate enforcement action when there is evidence of willful noncompliance and when criminal negligence or intent can be proven. Some examples of these are altering or falsifying reports, tampering with samples, unauthorized discharges, and violations of administrative orders.

The criminal enforcement process begins when the City has reason to believe crimes have been or will be committed. This information may be gathered during routine inspections or monitoring activities or in the form of reports from employees or the public. Citations may be issued by a Code Officer in the Code Enforcement Department when it is determined the operator's efforts, or lack thereof, to obtain compliance through less formal actions have failed. If crimes are suspected or known, the Director of Community Development or their designee shall notify the City's Attorney for proper collection of evidence.

Any person who negligently, willfully or intentionally violates any stormwater provision of the City Ordinance shall be guilty of a misdemeanor and shall be punished subject to the penalty jurisdictional of the Magistrate's Court. Each day of a violation shall constitute a new and separate offence.

4.0 ADDITIONAL RESPONSE ALTERNATIVES FOR PERMITTED VIOLATIONS

Additional response alternatives are available for development-related violations including any one or a combination of the following:

4.1 STOP WORK ORDER

Community Development staff can initiate a Stop Work Order where the site has active City permits, such as a Building Permit. The Stop Work Order must include the steps necessary to bring the site in compliance with applicable permits. Where a Code Enforcement Officer, Building Official, or their designee determines that a permit is being violated, the following steps must be taken:

- The City's Code Enforcement Officer, Building Official, or their designee issues a Stop Work Order.
- The Code Enforcement Officer, Building Official, or their designee notifies the Director of Community Development of the Stop Work Order.
- The Code Enforcement Officer, Building Official, or their designee re-inspects to ensure compliance before the City releases the Stop Work order.

A Stop Work Order may be issued to the permit holder and/or property owner of a construction site to suspend work under the following circumstances:

- If a Corrective Order has not resulted in a corrective action at a Construction Site which is acceptable to the Code Enforcement Officer, Building Official, or their designee by the expiration date of the Corrective Order.
- If work, which requires a SWPPP, has proceeded without first submitting a plan and obtaining a permit.
- Incidents which may cause damage to the MS4 and/or the health and welfare of the public and City personnel.
- Incidents which may cause damage to the environment.
- Chronic violations and/or failures to comply with Verbal Warnings, Corrective Orders and Notices of Violation

A Stop Work Order typically includes:

- The description and nature of the violations to the City's Ordinance or construction plans.

- The location of where the violations have occurred.

- A description of the ordered repair or remediation work necessary to comply with the City's Ordinance

- Requirement to submit a Corrective Action Plan within 10 days of the Stop Work Order. The Corrective Action Plan must address actions that will be taken to bring the site into compliance.

- Signature and Title of the person issuing the Stop Work Order.

4.2 WITHHOLD BUILDING INSPECTIONS

Where a City Code Enforcement Officer, Building Official, or their designee determines that a permit is being violated and building has commenced on the site, building inspections may also be withheld by the following procedure:

- The Code Enforcement Officer, Building Official, or their designee notifies the Building Safety Department to withhold building inspections. Building Safety Department places a hold on building inspections and will not issue a Certificate of Occupancy.

- A City Code Enforcement Officer, Building Official, or their designee shall re-inspect to ensure compliance before the City releases the hold on building inspections.

4.3 WITHHOLD PLAN APPROVALS

When violations are known to exist, the Director of Community Development or their designee may withhold the approval of all plans the responsible party or property owner submits. The project is flagged within the Stormwater Project Tracking System to hold all plans until violations are resolved.

4.4 WITHHOLD RELEASE OF CERTIFICATE OF OCCUPANCY

If the post-construction BMPs do not pass the final stormwater inspection by the Building Official, the City may withhold the release of the Certificate of Occupancy until the site passes its final stormwater inspection by the following procedure:

- The Building Official notifies the Community Development Department to withhold the Certificate of Occupancy.

- The Building Official notifies the Director of Community Development of the hold on Certificate of Occupancy.

- The Building Official shall re-inspect to ensure compliance before the City releases the hold on the Certificate of Occupancy.

5.0 ADDITIONAL ACTION BY COTTONWOOD

Where violations are not corrected in a timely manner or where the violation is damaging or has the imminent potential of damaging other properties or water bodies, the City, or its contractor, may enter upon the lot or parcel of land and correct the violation. Where the City completes repairs, the costs incurred by the City and/or its contractor (including inspection, administration, labor, equipment costs) shall be from the offender through collection of bonds or directly billing the offender.

Where Cottonwood is fined and/or placed under a compliance schedule by the state or federal government for violation(s) of its NPDES (AZPDES) permit, and Cottonwood can identify the person(s) who caused such violations(s) to occur, the City may pass through the penalty and cost of compliance to that business or person(s).

6.0 CORRECTIVE ACTION PLANS

With any corrective action noted above, the City has the authority to require a violator submit a Corrective Action Plan (CAP). Some corrective actions needed at a site are straight forward, simple actions such as cleaning out sediment controls or vegetating an area. However, other actions may take more planning and thought. In those situations, the City can require a CAP. A CAP may include any or all of the following items, depending on the violation:

- A proposed description of and design for immediate actions. Examples include installation of additional sediment controls.

- A proposed description of final actions to bring the site fully into compliance. An example could be the submittal of a detailed engineering plan.

- A proposed schedule for actions to bring the site into compliance.

When requiring a CAP, the inspector must set a deadline for submittal of the CAP for review and acceptance. If immediate measures are needed to halt damages to the City's stormwater system, private property or a wash, those actions should be separately addressed in the enforcement action and required immediately as opposed to waiting on submittal of the CAP.

Attachment D
Municipal Facility List

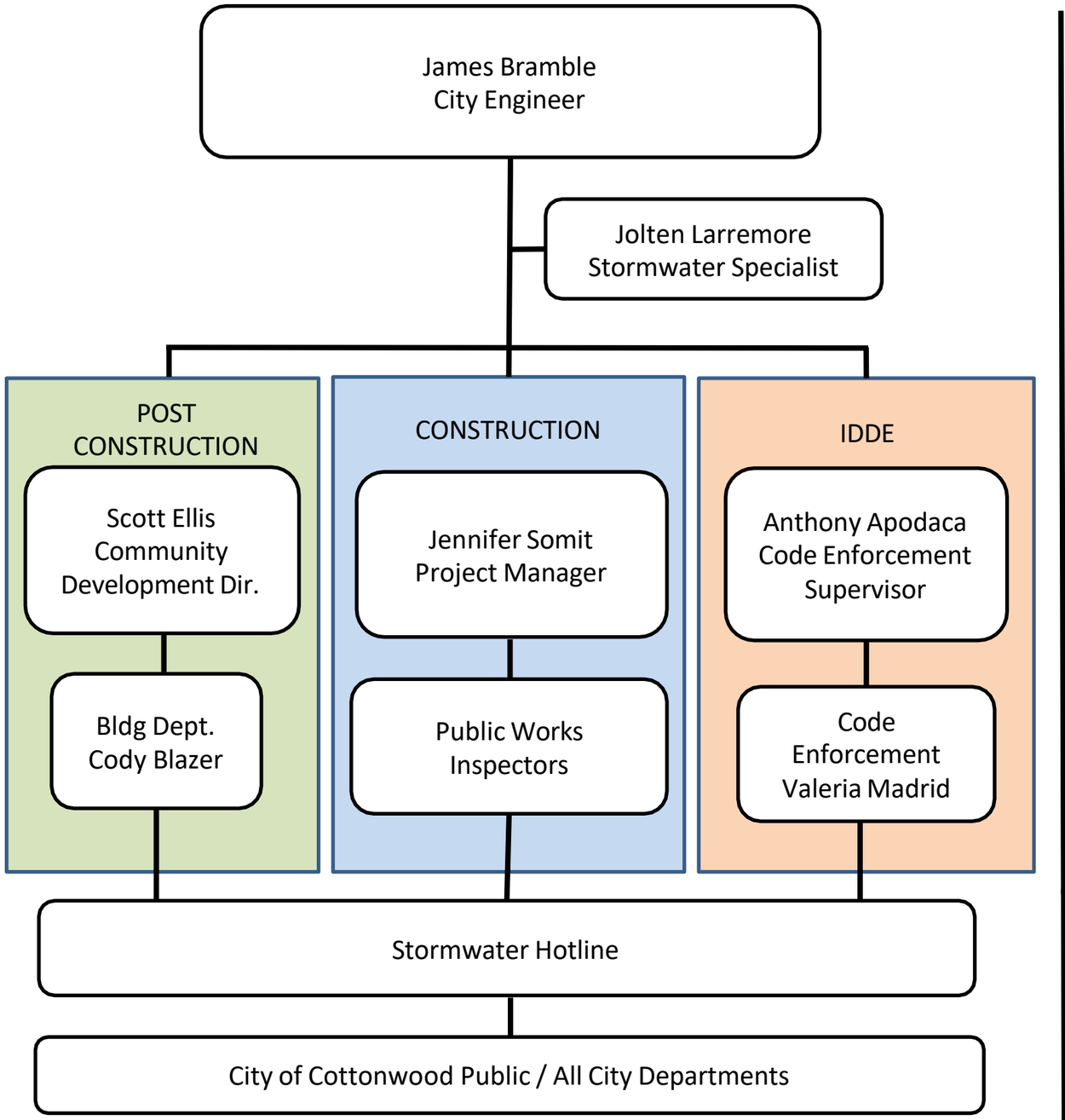
City of Cottonwood Facilities & Locations

Name	Address	Priority	Inspection Schedule
Airport	1001 W Mingus Ave	High	N/A (MSGP)
Public Works	1490 W Mingus Ave	High	Quarterly
Riverfront WWTP	1083 E Riverfront Road	High	Quarterly
Transfer Station	1500 W Mingus Ave	High	N/A (Operated by 3rd Party)
Mingus WWTP	1480 W Mingus Ave	High	N/A (MSGP)
City Hall	827 N Main Street	Medium	2x per year
Civic Center	805 N Main Street	Medium	2x per year
Community Garden	850 N 10th Street	Medium	2x per year
Community Orchard	991 S Willard Street	Medium	2x per year
Dog Park	850 N 10th Street	Medium	2x per year
Humane Society	1520 W Mingus Ave	Medium	2x per year
Public Safety - PD / FIRE	191 S 6th Street	Medium	2x per year
Transit	340 Happy Jack Way	Medium	2x per year
Utilities	111 N Main Street	Medium	2x per year
BAC (Business Assistance Center)	827 N Main Street	Low	1x per year
Cemetery	599 N Main Street	Low	1x per year
City Clerk	824 N Main Street	Low	1x per year
Communications 911	191 S 6th Street	Low	1x per year
Council Chambers	826 N Main Street	Low	1x per year
Courthouse	665 E Mingus Avenue	Low	1x per year
Disc Golf Park	1082 E Riverfront Road	Low	1x per year
Evidence Building	111 N Main Street	Low	1x per year
Finance / HR	816 N Main Street	Low	1x per year
Garrison Park	39 Brian Mickelson Parkway	Low	1x per year
Kids Park	350 S 12th Street	Low	1x per year
Lyons Park	SW Corner of Main & Willard	Low	1x per year
Mesquite Park	Mesquite Drive	Low	1x per year
Old Town Ball Park	221 E Pima Street	Low	1x per year
Old Town Jail	1101 Main Street	Low	1x per year
Riverfront Park	1284 E Riverfront Road	Low	1x per year
Teen Center (Old Ambulance Building)	39 Brian Mickelson Parkway	Low	1x per year
Youth Center	221 E Pima Street	Low	1x per year
Recreation Center	150 S 6th Street	Low	1x per year
Library	100 S 6th Street	Low	1x per year

Attachment E
Organization Chart and Responsibilities

City of Cottonwood

Stormwater Protection Additional Duty Organizational Chart



Administration of the Stormwater Protection Program is executed by senior City staff.

Stormwater inspections and enforcement are executed by the appropriate section: Post-Construction, Construction, or IDDE.

Calls to the Stormwater Hotline are fielded to the appropriate department based on the reported observation.

Observation and verbal reporting are conducted by the public and City employees. All reports are made to the Stormwater Hotline.

Attachment F

2NFORM Inspection Reports

City of Clean Water

Illicit Discharge Incident Investigation Report

Street Address	Request Type	Request Affiliation	Request Date/Time
Address, City State ZIP	Type	Type	Month DD, YYYY HH:MM
Estimated Start Time of Incident	**Latitude**	**Longitude**	
Month DD, YYYY HH:MM	#	#	

Investigation Summary

Investigation Date	Field Personnel	Incident Type	24 Hour Precip Amount
Month DD, YYYY	Field Person	Type	# in
Investigation Start Time	**Investigation End Time**		
HH:MM	HH:MM		

The responsible party **WAS/WAS NOT** identified.

A follow up inspection **IS** scheduled for **Month DD, YYYY** (follow up type).

The investigation **WAS/WAS NOT** closed out.

Investigation Details

Description	Location	Illicit Material or Activity
Description	Location	Type
Reached Storm Drain?	**Flow Characteristics Collected?**	**Incident Size**
Yes/No	Yes/No	# gal

Clean Up Details

Hazardous Materials Present?	Jurisdiction	Level of Effort Required
Yes/No	Type	Level
Staff Resources Used	**Equipment Resources Used**	
Description	Description	

Flow Characteristics

Odor	Odor Severity	Color	Color Severity
Description	Severity	Description	Severity

During the investigation, field personnel collected field measurements.

Parameter	Value	Sample Type
Parameter	# units	Type

During the investigation, field personnel collected samples.

Sample Type	Collected From	Sample ID
Type	Location	ID

Responsible Party Details

Location Description
Description
Responsible Party Name

Name

Billing Street Address	Billing City	Billing State	Billing Zip Code
Street Address	City	State	ZIP Code
Material Distributed	**Damages Billed**	**Enforcement Issued**	**Enforcement Level**
Yes/No	$	Yes/No	Level

Investigation Notes

General notes.

Investigation Photos

Investigation History

Inspection Type	Inspection Date	Inspection Result	Prepared By
Type	MM/DD/YYYY	Result	Field Person

City of Clean Water

Stormwater Construction Site Management Inspection Report

Project ID / Name	Prioritization	Inspection Frequency
Example ID Example Name	Level	Frequency

Inspection Summary

Site Score	Inspection Date	Last Inspection Result	Last Inspection Date
Result	Month DD, YYYY	Result	Month DD, YYYY
Inspection Type	**Prepared By**	**Compliant Requirements**	**Non-Compliant Requirements**
Type	Field Person	#	#

A re-inspection follow up inspection is scheduled for Month DD, YYYY. Please correct all open findings before the re-inspection.

Observations

Name	Condition
Observation Name	Result

General Inspection Observations

General Notes	Inspection Attendees
Notes	Names

Inspection Photos

Signatures

Site Representative Name	Signature Date	Signature
Name	Month DD, YYYY	
Inspector Name	**Inspection Date**	**Signature**
Name	Month DD, YYYY Total Inspection Time: # minutes	

Inspection History

Inspection Type	Inspection Date	Inspection Result	Prepared By
Type	MM/DD/YYYY	Result	Field Person

City of Clean Water

Structural BMP Inspection Report

sBMP ID / Name	Street Address	sBMP Type	WQ Treatment Processes Provided
Example ID Example Name	Street Address, City, State ZIP	Bioretention	Biogeochemical Cycling, Particle Capture
Consequence of Failure	**Drainage Area**	**Treatment Capacity**	**Footprint (**
High	# ac	# cu-ft	# sq-ft
Latitude	**Longitude**		
#	#		

Inspection Summary

The Routine Inspection submitted by **Field Person** on **Month DD, YYY,** resulted in **# issues** that require further action.

Issues	Level Needed
Issue Type	Level

During the inspection, flow **WAS/WAS NOT** present. An illicit discharge **WAS/WAS NOT** identified.

- A follow up inspection **IS/IS NOT** scheduled.

Precipitation & Flow

Date of Last Precip	Precip Type	24 Hour Precip Amount
MM/DD/YYYY	Type	# in
Submerged in Water	**Flow Present**	**Standing Water**
Result	Result	Result

Inspection Details

During the inspection, field personnel corrected # issues onsite.

Issues	Result
Issue Type	Corrected onsite

During the inspection, field personnel removed sediment and trash.

Sediment Removed	Trash Removed
# gal	# gal

Inspection Notes

General notes.

Inspection Photos

Inspection History

Inspection Date	Inspection Result	Prepared By
MM/DD/YYYY	Result	Field Person

City of Clean Water

Stormwater Compliance Facility Inspection Report

Facility ID / Name	Facility Address	Receiving Water
Example ID Example Name	Street Address, City, State ZIP	Watershed Name

Inspection Summary

Facility Letter Grade	Inspection Date	Last Inspection Result	Last Inspection Date
Result	Month DD, YYYY	Result	Month DD, YYYY
Inspection Type	**Prepared By**	**Compliant Requirements**	**Non-Compliant Requirements**
Type	Field Person	#	#

A re-inspection follow up inspection is scheduled for Month DD, YYYY..

Facility Requirements

Location	Required BMP	Result
Area -	Observation	Result

Inspection Notes

General notes.

Inspection Photos

Signatures

Facility Representative was advised that Illicit Discharges to storm drains from non stormwater resources are strictly prohibited. All parties have reviewed and understand the inspection results.

Site Representative Name	Signature Date	Signature
Name	Month DD, YYYY	
Inspector Name	**Inspection Date**	**Signature**
Name	Month DD, YYYY Total Inspection Time: # minutes	

Inspection History

Inspection Type	Inspection Date	Inspection Result	Prepared By
Type	MM/DD/YYYY	Result	Field Person

Attachment G
Training Records

Annual Stormwater Management Training – Data Summary

2024

On January 8th, 2024, the annual stormwater management online training program was launched. **272 City staff** (28 supervisors, 243 full-time employees, and 1 seasonal employee) took the required stormwater training courses (**Construction**, **IDDE**, and **Post-Construction Activities**) before the due date of June 30th, 2024.

Among the total are **54** personnel that are primarily involved in stormwater-related duties. This "**primary audience**" comprises of employees from **7** City departments/divisions.

Departments/Divisions	Number of Employees
Engineering	**4**
Maintenance	**10**
Ordinance Enforcement	**1**
Public Works	**9**
Streets	**4**
Water Operations	**18**
Wastewater Operations	**8**

Also, the ***Building Department*** (formerly known as ***Planning/Zoning***) is highlighted as a target audience for the Construction Activities Training course since they play a role in ensuring that construction projects comply with building codes and local regulations, including those regarding stormwater management. A total of **9** Building Department employees took the course as part of their annual training.

By March 22, 2024, the completion data of all three courses are recorded.

	Primary Audience	Building Department	Other City Staff	Total Number of Employees
Construction Activities Training	38 (70%)	2 (22%)	115 (55%)	155 (57%)
IDDE Training	38 (70%)	N/A	109 (50%)	147 (54%)
Post-Construction Activities Training	38 (70%)	N/A	107 (49%)	145 (53%)

2025 S1

From January 1st, 2025 to June 30th, 2025, **321 City staff** (52 supervisors, 227 full-time employees, and 42 seasonal employees) took a new required annual course titled **Stormwater Training - General Awareness.**

The **primary audience** consists of **53** personnel from **6** City departments/divisions.

Departments/Divisions	# of Employees
Engineering	**3**
Maintenance	**13**
Public Works	**7**
Streets	**4**
Water Operations	**17**
Wastewater Operations	**9**

In addition, the entire stormwater training program was reworked, so that the Construction Activities Training Course, the IDDE Training Course, and the Post-Construction Activities Training Course are assigned solely to the primary audience.

Moreover, the ***Building Department***, which consists of **8** employees, is required to take General Awareness Training and the Construction Activities Training.

Lastly, any City personnel outside of the primary audience will only take the General Awareness Training.

By May 30th, 2025, the completion data of all four courses are recorded.

	Primary Audience	Building Department	Other City Staff	Total Number of Employees
Stormwater Awareness – General Training	48 (91%)	N/A	153 (57%)	201 (63%)
Construction Activities Training	44 (94%)	5 (63%)	N/A	49 (89%)
IDDE Training	49 (93%)	N/A	N/A	N/A
Post-Construction Activities Training	47 (90%)	N/A	N/A	N/A

Attachment H
Self-Evaluation Records

Annual Program Evaluation Summary

Evaluate the appropriateness of the selected BMPs (control measures described in SWMP) in achieving the objectives of each control measure. The Permit allows the following reasons to change BMPs:

a. Adding (but not subtracting) components or controls may be made at any time
b. Replacing an ineffective or infeasible BMP identified in the SWMP with an alternative BMP

Date Updated in SWMP	BMP Name	Why is BMP ineffective/infeasible	Replacement BMP	How replacement will achieve defined goals
Sept. 2022	Mapping - GIS Database	The City does not have GIS staff to maintain GIS database	Migrate data to 2NDNATURE	Maintaining mapping data in 2NDNATURE can be completed by stormwater staff and database support. Improves the ability for the City to track more information.
Sept. 2022	Utility Bill Inserts	Paper utility bills have largely been replaced by digital billing	Social Media Outreach	Social media is a more agile communication medium and can engage new audiences.
Sept. 2022	Regional Outreach	The regional outreach group is no longer active	Community Cleanups	Engage Cottonwood residents by providing free drop-off of solid waste, including bulky items. More accessible solid waste services will lead to reduced illegal dumping.
Feb. 2025	Patriot Disposal Inc.	The facility is no longer running the Cottonwood Transfer Station	Waste Management	Ensuring the SWMP maintains efficiency and effectiveness by staying up-to-date and aligned with relevant information.
Feb. 2025	Paper Inspection Forms	Paper inspection forms have been entirely replaced by digital forms.	2NFORM Inspection Reports	Improves the accuracy and timeliness of field data in inspections and maintenance activities.

Date Updated in SWMP	BMP Name	Why is BMP ineffective/infeasible	Replacement BMP	How replacement will achieve defined goals
Feb. 2025	Best Management Practices (BMPs) as a term	The term is no longer used to describe the measures/practices applied to prevent/minimize pollution from entering surface waters.	Stormwater Control Measures (SCMs)	SCMs are more specific and directly focus on the active act of managing stormwater. In addition, more precise technical language is given, and more clarity on what specific practices are being referred to is given.

Date Updated in SWMP	BMP Name	Why is BMP ineffective/infeasible	Replacement BMP	How replacement will achieve defined goals

Attachment I
Ordinances

EXHIBIT A
STORMWATER POLICY

TITLE 13 - PUBLIC SERVICES
STORMWATER POLICY

CHAPTER 13.24 STORMWATER POLICY

13.24.010 FINDING OF FACT

Illicit discharges occur due to illicit connections to the Municipal Separate Storm Sewer System ("MS4") from residential, business, industrial or commercial establishments. As a result of illicit connections, contaminated stormwater, wastes or wastewater enters into storm drains or directly into local waters without receiving treatment from a wastewater treatment plant. Illicit connections may be intentional or may be unknown to the property or business owner. Illicit discharges to the City of Cottonwood stormwater system can cause excessive discharges of pollutants to surface waters and groundwater. These discharges can negatively impact public health, welfare, and the environment by transporting and depositing pollutants.

13.24.020 PURPOSE AND INTENT

The purpose of this chapter is to provide for health, safety, and general welfare within the City of Cottonwood ("City") through the regulation of non-stormwater discharges to the MS4 to the Maximum Extent Practicable ("MEP") as required by federal and state law. To this end this Chapter requires that unless expressly authorized or exempted by this Chapter, no person shall cause, participate in, or allow the discharge to a public right-of-way or public storm drain system of any substance that is not composed entirely of stormwater. To further this end this Chapter establishes authority to conduct and require inspection, monitoring, reporting, and enforcement activities to address the prevention, identification, and remediation of illicit discharges to the MS4.

It is the intent of this chapter to comply with AZPDES regulations for stormwater discharges, to be consistent with the stormwater quality provisions of the Federal Clean Water Act (33 U.S.C. § 1342), and to enable the City to comply with all applicable stormwater quality provisions of federal, state, and local laws and regulations to ensure the future health, safety, and general welfare within the City of Cottonwood, as well as the protection and preservation of the local environment.

It is the intent of this Chapter that the standards promulgated by the Chapter are minimum standards; therefore it is not intended or implied that compliance with the provisions of this Chapter by any person will ensure that there will be no contamination, pollution, or unauthorized discharge of pollutants.

13.24.030 DEFINITIONS

Unless the context specifically indicates otherwise, the meaning of words and terms used in this Chapter shall be as set forth below.

"ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY" OR "ADEQ" means the Arizona state agency established pursuant to Arizona Revised Statutes §49-102.

"ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES)" means the program established by the State of Arizona by provisions in Arizona Revised Statutes Title 49, Chapter 1, Article 3.1 to control the discharge of pollutants to waters in Arizona.

"AZPDES GENERAL PERMIT" means a general permit issued by the ADEQ under authority delegated pursuant to the 33 United States Code §1342(b).

"BEST MANAGEMENT PRACTICES (BMPS)" means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices designed to prevent or reduce the discharge of pollutants to the MS4. BMPs also include treatment requirements, operating procedures, design requirements, and practices to control runoff, spillage, leaks, waste disposal, or pollution of storm drainage flows.

"CITY" means the City of Cottonwood, Arizona

"COMBINED SEWER" means an enclosed sewer system that conveys both sanitary sewage and stormwater flows.

"CONSTRUCTION GENERAL PERMIT" means a permit issued by the Permitting Authority that allows discharges of stormwater from construction activities as defined in 40 CFR § 122.26.

"CONSTRUCTION SITE OPERATOR" means the primary operator of a construction site within the corporate limits of the City.

"CWA" means Clean Water Act or the Federal Pollution Control Act, 22 U.S.C. 1251 et. seq.

"DESIGNEE" means a person designated for a specific purpose by the City of Cottonwood City Engineer.

"DISCHARGE" means any spilling, leaking, pumping, pouring, emitting, emptying, injecting, placing, releasing, leaching, dumping, or disposing into or on any land in a manner that may cause pollution, when used without qualification.

"EPA" means The United States Environmental Protection Agency.

"EROSION" means the wearing away of land due to the actions of water, other liquid, and/or wind.

"FACILITY" Any land, building, installation, structure, equipment, device, conveyance, area, source, activity or practice from which there is, or with reasonable probability may be, a discharge.

"ILLICIT CONNECTION" Any manmade conveyance connecting an illicit discharge directly to an MS4.

"ILLICIT DISCHARGE" Any discharge to the MS4 that is not composed entirely of stormwater, except for discharges allowed under the AZPDES Permit No. AZG2002-002.

"MAXIMUM EXTENT PRACTICABLE (MEP)" The technology based discharge standard for municipal separate storm sewer systems to reduce pollutants in stormwater discharges. A discussion of MEP as it applies to small MS4's is found at 40 CFR 122.34. CWA section 402(p)(3)(B)(iii) requires that a municipal permit shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including Best Management Practices, control techniques and system design, engineering methods, and other provisions that the State of Arizona determines appropriate for the control of such pollutants.

"MUNICIPAL SEPARATE STORM SEWER SYSTEM" OR "MS4" means a publicly owned conveyance or system of conveyances designed or used for collecting or conveying

stormwater which is not a combined sewer and which is not part of a publicly owned treatment works.

"MUNICIPAL STORMWATER PERMIT" The AZPDES General Permit Arizona Pollutant Discharge Elimination System (AZPDES) Stormwater Permit for discharge from Small Municipal Separate Storm Sewer Systems (MS4 's) to Waters of the United States. This permit is issued by the Arizona Department of Environmental Quality (ADEQ) under authority delegated pursuant to 33 United States Code § 1342(b).

"NON-STORMWATER DISCHARGES" means a discharge not consisting entirely of stormwater.

"NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)" A permit issued by EPA (or by a state under authority delegated pursuant to 33 USC § 1342(b)).

"NOTICE OF INTENT" OR "NOI" means that document submitted to the Permitting Authority in order to obtain coverage under a General Permit.

"PERMITTING AUTHORITY" means the NPDES-authorized state agency or EPA regional office that administers the NPDES stormwater permit program.

"PERSON" An individual, employee, officer, managing body, trust, firm, joint stock company, consortium, public or private corporation, including a government corporation, partnership, association or state, a political subdivision of this state, a commission, the United States government or any federal facility, interstate body or other entity.

"POLLUTANT" means anything that causes or contributes to pollution. Pollutants may include, but are not limited to: contaminants, toxic wastes, chemicals, petroleum products, biological materials, wrecked or discarded equipment, rocks, sand, paints, varnishes and solvents, oil and other automotive fluids, non-hazardous liquid and solid wastes, yard wastes, refuse, rubbish, garbage, litter, or other discarded or abandoned objects, floatables, pesticides, herbicides, and fertilizers, hazardous substances and wastes, heat, sewage, fecal coliform and pathogens, dissolved and particulate metals, animal wastes, wastes and residues that result from constructing a building or structure, noxious or offensive matter of any kind, or any other liquid, solid, gaseous, or hazardous substance.

"POLLUTION" The alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any water of the State or waters of the United States, that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property, or to the public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

"PUBLICLY OWNED TREATMENT WORKS (POTW)" means any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature that is owned by a state, political subdivisions of the state or municipality. This

definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

"PUBLIC STORM DRAIN SYSTEM" means all or any part of the publicly-owned and maintained roads, streets, catch basins, curbs, gutters, ditches, man-made channels, storm drains, and dry wells located within public easements, right-of-way, parks, common areas, retention areas, or other publicly-owned or maintained real property designed or used for collecting, holding, treating, or conveying stormwater.

"RECEIVING WATERS" A river, stream, or other watercourse into which wastewater, stormwater or treated effluent is discharged.

"STORMWATER" Any surface flow, runoff, or drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation and which is being managed in accordance with BMPs appropriate to the facility, pollutant, and quantity of water. Appropriate to the facility shall mean consideration shall be given to the size, location, zoning, and use.

"STORMWATER MANAGEMENT PLAN" A document which describes the Best Management Practices and activities to be implemented by the City to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to stormwater, stormwater Drainage Systems, and/or Receiving Waters to the Maximum Extent Practicable. This document may also be designated "Stormwater Quality Management Plan".

"STORMWATER POLLUTION PREVENTION PLAN (SWPPP)" A document which describes the Best Management Practices, including but not limited to processes, devices, and activities, to be implemented by a person or business to identify sources, potential or actual, of pollution or contamination at a site and the action to eliminate or reduce pollutant discharges to stormwater, MS4, and/or receiving waters to the Maximum Extent Practicable (MEP).

"WASTEWATER" Any water or other liquid, other than uncontaminated stormwater, discharged from a facility.

"WATERCOURSE" Any body of water, including but not limited to, lakes, ponds, rivers, streams, and washes whether perennial, intermittent or ephemeral.

"WATERS OF THE UNITED STATES" Notwithstanding the determination of an area's status by the City, State or Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA. Subject to other determination by EPA, Waters of the United States shall be deemed to be traditionally navigable waters and their tributaries that have at a minimum continuous seasonal flow or have a significant nexus regarding the chemical, physical or biological integrity of the navigable water. Generally roadside ditches and small washes and gullies characterized by low, infrequent, or low duration flows will not be considered Waters of the United States.

13.24.040 APPLICABILITY

The provisions of this Chapter are applicable to all water entering the public storm drain system, Waters of the United States, and water watercourses within the City limits, whether generated on any developed or undeveloped lands, unless explicitly exempted by an AZPDES General Permit.

13.24.050 RESPONSIBILITY FOR ADMINISTRATION

The City Engineer shall administer, implement, and enforce the provisions of this Chapter. The City Engineer may designate other employees to exercise powers and perform duties under the provisions of this ordinance. The authorities granted to the City Engineer under the provisions of this section are subject to Cottonwood City Code as to relationship to the City Manager. In the case of overlapping authority regarding wastewater discharge as defined in Cottonwood City Code Chapter 13.12 and the authority regarding discharge under this Chapter, the Utilities Administrative Manager is authorized to act on behalf of the City Engineer.

13.24.060 SEVERABILITY

The provisions of this chapter are hereby declared to be severable. If any provision, clause, sentence, or paragraph of this chapter or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this chapter.

13.24.070 DISCHARGE PROHIBITIONS

All illicit discharges to the public storm drain system are prohibited. These include, but are not limited to:

1. Discharges that are a source of pollutants, including discharges through connections that are a source of pollutants.
2. Discharge of soil, rock, trash, garbage and other waste
3. Maintaining, establishing, or using a connection that allows a discharge
4. Discharge from commercial car washing, mobile car washing, or impervious surface pressure washing operations
5. Discharge from concrete washing
6. Discharge of oils, fuels, paints, greases
7. Discharge of grit and sand from grinding
8. Discharge from carpet cleaning
9. Discharge of chlorinated water from spas, swimming pools and similar facilities
10. Discharge resulting from misrepresentation of the nature of discharge on an application, a plan, permit, or certification.
11. Discharge not disclosed on an application, plan, permit or certification

12. Discharge of wastewater as defined in Cottonwood City Code Chapter 13.12 and this Chapter.
13. Continuing a discharge that has not been permitted by the City of Cottonwood

The prohibition regarding illicit discharge includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of construction.

13.24.080 PERMITTED NON-STORMWATER DISCHARGES

The City of Cottonwood has determined that the following discharges are not significant contributors of pollutants to the municipal MS4s and are considered allowable Non-stormwater Discharges, unless the City determines in specific instances that the discharge contributes to a violation of the AZPDES General Permit or other permit(s) under which the City of Cottonwood is permitted to operate its MS4:

1. Water line flushing
2. Landscape irrigation
3. Diverted stream flows
4. Rising ground waters
5. Uncontaminated ground water infiltration
6. Uncontaminated pumped groundwater
7. Discharges from potable water sources
8. Foundation drains
9. Air conditioning condensate
10. Irrigation water
11. Springs
12. Water from crawl space pumps
13. Footing drains
14. Lawn watering
15. Individual residential car washing
16. Non-commercial, charity car washes
17. Discharges from riparian habitats and wetlands
18. De-chlorinated swimming pool and spa discharges
19. Street wash water
20. Discharges of flows from fire fighting activities
21. Building washing without added cleaning products
22. Auto rinsing without added cleaning products

The City permits discharges allowed under the AZPDES De Minimus General Permit and the City will rely on the State of Arizona to enforce the provisions regarding these discharges under that permit. The City may, however, require a person to demonstrate that a discharge is subject to that permit.

Discharges allowed under separate permits issued by ADEQ are allowed provided that the permit conditions are adhered to.

Discharges which have been managed using BMPs that are appropriate to the facility at the time of the discharge and properly maintained shall be considered allowable.

It shall be the responsibility of the person discharging to demonstrate through testing, records, plans, and other documents that the discharge is allowable under this Chapter. The City may require such demonstration for any facility connected to the MS4 directly or indirectly.

13.24.090 PLAN REVIEW, INSPECTIONS, ACCESS, AND REPORTS

The City shall require that any person submitting a grading, building, or other improvement plan disclose if illicit discharge, stormwater, or permitted non-stormwater discharge of any type to the MS4 may occur as a result of, or in conjunction with the implementation of the plan. To the extent that the discharge would be an illicit discharge, if connected to the MS4, the plan shall include BMP measures to remove or prevent the illicit discharge during and after construction or the improvement or project. The BMPs shall be subject to approval of the City Engineer.

Persons shall maintain the BMPs during and after construction. This shall apply to persons initiating a project and to heirs and assigns. Changes to the BMPs approved at the time of a project implementation shall be sent to the City in writing. The revised BMPs shall be at least as effective in preventing pollution as the original BMPs or as then currently required by the city. The City reserves the right to require changes in BMPs as necessary to assure that discharges to the MS4 are of a quantity and quality that the City will not be in violation of the permits under which it is allowed to discharge stormwater.

The City of Cottonwood shall be granted access to all facilities and lands discharging any water or other material to the MS4.

Persons further developing parcels and/or lots that are part of a larger development, regardless of the time elapsed, shall utilize current BMP methods that are at least as effective as those identified in the stormwater pollution prevention plan for the larger development or necessary to comply with regulations, laws, and codes current at the time of further developing, whichever is more stringent. Appropriate permits required by the State shall be acquired by further developers.

Site-specific stormwater pollution prevention plans shall be developed for all construction projects one acre or greater in size. The site specific plan shall identify the minimum BMPs to be utilized upon further development of the project area, when the person submitting the plan will not develop the entire project though building occupancy or other full development intent. Smaller areas may develop a site-specific plan or provide a notice of intent to abide by the City's general stormwater pollution guidelines. The Notice of Intent shall be of a format approved by the City Engineer and shall at minimum contain the following:

1. The name of the development as applicable
2. The name of the property owner
3. The name of the person responsible for compliance with the pollution prevention plan
4. The anticipated time frame for constructing the project
5. A statement to be signed by the responsible person and the property owner stating:

   "The responsible person and the person owning the property for which this Notice of Intent is submitted agree to require that all construction work and related activity be conducted in accordance with the Cottonwood City Code requirements and the requirements of the City of Cottonwood General Stormwater Pollution Prevention Guidelines. The undersigned Persons further understand that failure to meet the mentioned requirements will be sufficient cause for the City to restrict or stop work on the property until the requirements are met. The undersigned shall additionally be subject to other actions under law."

The City Engineer shall develop, publish, and update from time to time general stormwater pollution guidelines. These guidelines shall at minimum address pollution caused by soil erosion, motor oil, trash, and landscape debris.

13.24.100 SUSPENSION OF MS4 ACCESS

The City may, without prior notice, suspend MS4 discharge access when such suspension is necessary to stop an actual or threatened discharge, which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the MS4. If the violator fails to comply with a suspension order issued in an emergency, the City may take such steps as deemed necessary to prevent or minimize damage to the MS4, or to minimize danger to persons or the environment.

13.24.110 INDUSTRIAL OR CONSTRUCTION ACTIVITY DISCHARGES

Any person subject to an industrial or construction activity AZPDES/NPDES stormwater discharge permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required. An authorized representative of the City of Cottonwood shall be permitted to enter and inspect facilities subject to regulation under Industrial or Construction Activity permits at reasonable times and as often as may be necessary to determine compliance with this chapter. If a discharger has security measures in effect which require proper identification and clearance before entry into its premises, the discharger shall make the necessary arrangements to allow access to representatives of the City.

13.24.120 SUSPENSION DUE TO THE DETECTION OF ILLICIT DISCHARGE

Any person discharging to the MS4 in violation of this chapter may be subject to MS4 access termination if such termination would abate or reduce an illicit discharge. The City will notify a violator of the proposed termination date of its MS4 access. The violator may petition the City

for a reconsideration and hearing in accordance with procedures set forth in Section 13.24.15 Appeal. A person commits an offense if the person reinstates MS4 access to premises terminated pursuant to this Section, without the prior approval of the City of Cottonwood.

13.24.130 WATERCOURSE PROTECTION

Every person owning property through which a watercourse passes, or such person's lessee, shall keep and maintain that part of the watercourse within the property free of trash, debris, excessive vegetation, and other obstacles that would pollute, contaminate, or significantly retard the flow of water through the watercourse. In addition, the owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse. All maintenance activities must be in compliance with Federal, State and Municipal regulations.

13.24.140 NOTIFICATION OF SPILLS

The owner, operator, or the person who has control of the source or location of any potential spill or release, which may result in a discharge that is not in compliance with this chapter, shall:

A. Have a written Stormwater Pollution Prevention Plan or a written corrective action plan utilizing BMPs for the involved facility.

B. Post notices to employees containing information about whom to contact and what procedures to follow in the event of an accidental discharge or spill.

C. In the event of a spill, promptly take all reasonable safety precautions including, if appropriate, call 911 and complete the following steps:

1. Proceed with containment and clean up in accordance with:
   (a). The orders of an involved health and safety agency, or if no such orders have been issued:
   (b). The orders of an authorized representative, or if no such orders have been issued:
   (c). The stormwater Pollution Prevention Plan or approved corrective action plan utilizing Best Management Practices for the involved facility.

2. Notify the City of Cottonwood City Engineer and the Arizona Department of Environmental Quality of the release by telephone before noon of the next working day;

3. Provide written notification, within five working days, to the City of Cottonwood City Engineer of the type, volume, cause of the discharge, corrective actions taken, and measures to be taken to prevent future occurrences.

13.24.150 ENFORCEMENT

A. Notice of Violation, Corrective Action, and Penalties

Upon discovery of a violation of this chapter, the City Engineer, or authorized representative may issue to the violator a written notice stating the nature of the violation, the corrective action required, the time frame for corrective action, and the penalties for continued non-compliance. The statement shall inform the owner or occupant that failure to pay the penalties will result in a lien against the property. The Notice shall be served either by personal service or certified mail, upon the owner, the owner's agent, the occupant, or the lessee. The Notice may also be delivered by posting upon the facility at location(s) where it is likely to be seen. The Notice may also require the violator to:

1. Submit a corrective action plan to the City Engineer indicating the cause of the violation, corrective actions to prevent recurrence, and a proposed compliance schedule;
2. Pay all costs of sampling and analysis, as well as costs for laboratory sample analysis;
3. Clean up any material that has left the property or has the potential to impact stormwater runoff, ensure that the clean up has been completed, and make changes in operations to prevent future releases;
4. Obtain and pay for the services of a qualified person to oversee and certify that corrective actions needed to resolve the violation have been completed;
5. Prepare and implement a Best Management Practices Plan to prevent stormwater pollution, regardless of AZPDES/NPDES requirements;
6. Stop work on clearing, dredging, grading, excavating, storing, transporting, and/or filling of land, new construction, improvements, alterations, or additions;
7. Stop any activity that is in violation of this chapter;
8. Abate, within the time specified in the notice, any condition that is in violation of this chapter; and
9. Abate immediately any condition in violation of this chapter, if the City Engineer or authorized representative determines that such condition presents an immediate threat to public health, safety, or the environment;

If violator refuses or is unable to immediately abate a condition that presents an immediate threat to public health, safety or the environment, the City may use all means necessary to abate the incident to protect the public health, safety or the environment and the City may charge all costs of such abatement to the violator.

The City may approve the compliance schedule or corrective action plan utilizing Best Management Practices submitted by the violator, or may require an alternative compliance schedule or corrective action plan utilizing Best Management Practices. This shall be done

within the period specified in the notice. If the City discovers a condition that is likely to cause or is causing a discharge that threatens public health, safety or the environment, mitigation may include an immediate cessation of activity and abatement.

The remedies in this Section are cumulative and the City may seek one or more such remedies.

It is a civil infraction for any person to violate this Section or fail to comply with a notice or violation issued under this Section.

Any person violating this Section shall be liable to the City for all damages, costs, fines and penalties incurred by the City as a result, and shall defend, indemnify, and hold harmless the City against any resulting claims, liabilities or damages.

2.0 Appeal

Any person receiving a notice of violation may appeal the determination. The Notice of Appeal must be received by the City Engineer within ten (10) calendar days from the date of the notice:

A. The appeal must be in writing, state the objection to the notice of violation, provide a mailing address for a response, and be mailed or delivered to the City Engineer;

B. The City Engineer may, within ten (10) working days of the receipt of an appeal, provide a written response to the person appealing which shall be delivered either by mail or by personal delivery. No response within 10 working days shall be deemed to be a denial of the appeal.

C. Appeal of the City Engineer response or lack thereof shall be made to the City Hearing Officer. Notice of such appeal shall be mailed to the City Engineer who shall schedule a hearing to be conducted by the City Hearing Officer, who shall admit all probative and reliable evidence without regard to formal rules of evidence or procedure. The person requesting an appeal may be heard in person and/or by an authorized representative at such hearing. Following the hearing, the City Hearing Officer shall issue a decision as to whether the notice of violation was supported by the evidence;

D. Appeal of the City Hearing Officer decision may be made in a court of competent jurisdiction.

E. At the sole discretion of the City any violation set forth in a Notice of Violation I issued pursuant to 13.24.150 that does not present an immediate threat to health and safety may be suspended until such time that the appeal process is complete.

3.0 Cost of Abatement of the Violation

Within thirty (30) calendar days after abatement of the violation, the owner of the property will be notified of the cost of abatement, including administrative costs. The property owner may file a written protest objecting to the amount of the assessment within fifteen (15) calendar days. If the amount due is not paid within fifteen (15) calendar days or by the time in which to file for an appeal is expired, the charges shall become a special assessment against the property and shall constitute a lien on the property for the amount of the assessment. The assessment shall be recorded in the office of the Yavapai County Recorder, including the date, amount of the assessment, and the legal description of the property against which the assessment is made. From the date of its recording, the assessment shall be a lien on the property and shall accrue interest at the rate prescribed by Arizona Revised Statutes, Section 44-1201. The City shall have the right to bring an action to enforce the lien in the Superior Court of Yavapai County at any time after the recording of the assessment, but failure to enforce the lien by such action shall not affect its validity. The recorded assessment shall be prima facie evidence of the truth of all matters recited therein, and of the regularity of all proceedings prior to the recording of the assessment.

4.0 Injunctive Relief

It shall be unlawful for any person to violate any provisions or to fail to comply with any of the requirements of this chapter. If a person has violated or continues to violate any provisions of this chapter, the City may petition the Yavapai County Superior Court for a preliminary or permanent injunction restraining the person from activities which would create further violations or compelling the person to perform abatement or remediation of the violation.

5.0 Violations Deemed a Public Nuisance

In addition to the enforcement processes and penalties provided herein, if any condition caused or permitted to exist in violation of any of the provisions of this chapter is a threat to public health, safety, and welfare, and is declared and deemed a nuisance by the City, such condition may be immediately abated or restored at the violator's expense, and/or a civil action to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken. Nuisances under this Chapter are also subject to enforcement under Chapter 8.12.020 of this Code.

6.0 Remedies Not Exclusive

The remedies listed in this chapter are not exclusive of any other remedies available under any applicable federal, state or local law and it is within the discretion of the City of Cottonwood to seek cumulative remedies. The City may recover all attorneys' fees, court costs, and other expenses associated with enforcement of this chapter, including sampling and monitoring expenses.

Chapter 15.40 STORMWATER DETENTION

Sections:

15.40.010 Definitions.

For purposes of this chapter, the following words shall have the following meanings:

A. "Developer" means any individual, firm, corporation, partnership, association or other legal entity that is responsible for the development of land.

B. "Drainage pattern" means the course of storm water runoff crossing the property, and adjacent properties, under predevelopment conditions.

C. "Drainage plan" means plan of the property addressed in the drainage study, showing elevation, slopes, detention areas of all other information pertinent to the stormwater runoff.

D. "Drainage study" means the determination of predevelopment and postdevelopment stormwater flows based on a one hundred-year storm duration equal to the time of concentration. This study should also show the disposition of all runoff from the property, whether current or projected.

E. "Major wash" or "watercourse" means the alignment of any well defined flow of stormwater with a history of carrying such flows in the past.

F. "Qualified engineer" means a registered professional engineer, civil or hydrologist, or any other person considered qualified by the city engineer.

(Ord. 172 § 1, 1985)

15.40.020 Engineering study-Requirements.

All subdivisions and site construction on all properties including mobile home parks, whether constructed at one time or in phases or any addition or alteration to an existing developed property including parking areas, buildings or other nonpervious surfaces shall comply with these requirements. It is the responsibility of the developer of property to provide a drainage study by a qualified engineer together with acceptable engineering plans and specifications as deemed necessary by the city engineer which reflects that the stormwater runoff due to onsite construction meets one of the following criteria in order to obtain a development permit from the city:

A. A drainage plan is approved which satisfies the onsite detention requirements of the ordinance as specified in Section 15.40.030.

B. A drainage study can substantiate that the peak discharge of stormwater runoff after development is completed will not exceed peak storm runoff conditions that existed prior to development.

C. All stormwater runoff from the completed development will be carried directly into a major wash or water course as defined in this chapter, and will not substantially increase flood hazards for other properties.

D. The development consists of a single-family residence on legally created parcel appropriately zoned.

E. The city engineer shall approve all drainage plans and studies pertaining to the requirements of this chapter and shall approve same prior to a development permit being issued.

(Ord. 172 § 2, 1985)

15.40.030 Design requirements.

A. The basis of design for stormwater runoff and for stormwater detention facilities shall be the one-hundred-year storm with duration equal to time of concentration. The design shall provide that the calculated peak discharge after development does not substantially exceed the peak discharge prior to development. Adequate storage and/or onsite disposal volume shall be provided for such runoff and the design shall show how the runoff reaches the storage and/or disposal areas.

B. Temporary storage of stormwater may be accompanied with detention areas consisting of landscaped areas, parking areas with maximum depth not to exceed four inches, gravel areas combining storage and percolation or any other defined areas where water will not be detained for longer than twenty- four hours. Controlled discharge from the storage areas must not combine with runoff from other areas of the development and to exceed peak runoff flows from the identical area prior to development.

C. Disposal of runoff shall be accomplished by the method deemed most appropriate by the city engineer, based on engineering studies presented. Test records for percolation must be submitted with submission of drainage and detention information.

(Ord. 172 § 3, 1985)

15.40.040 Modification requirements.

In all cases, regardless of detention requirements, the existing drainage pattern for the area of the development must not be modified without preparation of complete plans, reviewed and approved by the city engineer. Rainfall runoff from storms of all return frequencies should enter and depart from property after development in substantially the same manner as under predevelopment conditions. Any proposals to modify drainage patterns must be fully justified by engineering data which shall demonstrate to the city that hazards to life and property will not be increased by the proposed modifications.

(Ord. 172 § 4, 1985)

15.40.050 Appeals.

The floodplain board as established by the city shall hear and decide appeals and requests for variances from the requirements of this chapter.

(Ord. 209 § 2, 1985: Ord. 172 § 5, 1985)

Attachment J
Sampling and Analysis Plan

Sampling and Analysis Plan

Prepared September 2022

For:

City of Cottonwood
1490 West Mingus Ave
Cottonwood, AZ 86326

In accordance with the
Arizona Pollutant Discharge Elimination System
General Permit for Stormwater Discharges from
Small Municipal Separate Storm Sewer Systems
Permit No. AZG2021-002
Effective September 30, 2021
Modified September 16, 2022

Prepared by:

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Oren Thomas	oren.thomas0@gmail.com	

Contents

Summary

This Sampling and Analysis Plan (SAP) describes the collection and assessment of stormwater samples by the City of Cottonwood (City) as required under the Arizona Department of Environmental Quality's (ADEQ) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) to Protected Surface Waters, No. AZG2021-002 (Permit).

This SAP is a component of the City's stormwater management program, detailed in full in the City of Cottonwood Stormwater Management Plan (SWMP).

Receiving Waters & Sampling Locations

Protected surface waters within Cottonwood City Limits include:

Receiving Water Name	SWQS Classification	Impairments & Pollutants of Concern	Applicable TMDLs	# MS4 Outfalls
Del Monte Wash / Blowout Creek	AWEDW, PBC	None	N/A	1
Verde River	AWW, FC, FBC, AGI, AGL	*E. coli*	No	0
Black Canyon Creek	AWW, FC, FBC	None	N/A	0
Spring Creek	AWW, FC, FBC, AGI, AGL	*E. coli*	Oak Creek (2010)	0
Coffee Creek	AWW, FC, FBC, AGL	None	N/A	0

Currently the only outfall in Cottonwood's mapping database that discharges directly to a protected surface water is at Main St. near its bridge over Del Monte Wash. This location is close to Old Town Cottonwood and land uses in proximity to this outfall include food service, residential, and commercial offices.

Sampling Personnel

Staff Position	Responsibilities
Senior Engineer	Oversees stormwater program
Stormwater Specialist	Conducts sampling, coordinates with laboratories

Water Quality Parameters

In addition to the monitoring required by the Permit, described below, the City may conduct monitoring of stormwater discharges, non-stormwater discharges, or streamflow to assess potential sources of pollutants, identify illicit discharges, and collect data to inform management decisions.

Stormwater Characterization Monitoring

Stormwater characterization monitoring is conducted once per permit cycle, within 3.5 years of the permit effective date. The List of Parameters and Analytical Methods section below contains a full list of parameters to be analyzed and the relevant Surface Water Quality Standards (SWQS) as listed in Arizona Administrative Code (AAC) Title 18, Ch. 11.

The Permit requires that stormwater characterization monitoring is conducted at a minimum of 3 outfalls or locations in the MS4. Because Cottonwood currently only has one outfall to a protected surface water identified, an additional 2 samples will be collected at locations where the MS4 discharges to a non-regulated water or to another MS4, such as Yavapai County, or Arizona Department of Transportation. These additional sampling locations will be representative of typical stormwater pollution in Cottonwood's MS4.

Discharges to Impaired Waters

While waters with an *E. coli* impairment are present within Cottonwood city limits, the City of Cottonwood's MS4 does not currently discharge directly to these waters.

If outfalls to impaired waters are identified or constructed, discharges to impaired waters will be sampled at a minimum of 1 time per wet season for each receiving water. For the purposes of analytical monitoring, wet seasons are defined as follows:

Summer wet season: June 1 – October 31
Winter wet season: November 1 – May 31

The minimum number of outfalls sampled depends on the total number of outfalls in Cottonwood's MS4 that discharge to impaired waters:

Total # of Outfalls	# Outfalls Sampled
1 to 4	All
5 to 20	5
Over 20	10

Qualifying Storm Events

Sampling will be conducted for storm events that produce at least 0.1 inches of rain and result in a discharge from the MS4 to protected surface waters. In the event that a winter storm generates sufficient snow, snowmelt resulting in a discharge may also be sampled. As required by the Permit, sampling will be conducted within the first 24 hours of a qualifying storm event. The City will attempt to collect a sample from the first flush, the first 30 minutes of stormwater discharge from an outfall.

Safety

Personnel safety is the top priority for the City. Sampling personnel will be provided with all equipment needed to do their job safely. This includes items such as safety vests, rain gear, boots, nitrile gloves, cones or other traffic control devices, and other equipment identified as necessary by staff and the department. If accessing a sampling location would be dangerous due to hazardous terrain, sampling personnel will utilize grab poles or other equipment to collect samples from a safe distance.

Sampling will not be conducted in conditions that may create hazards for personnel including lightning, high winds, flooding, icy conditions, etc.

Sampling Documentation

During sampling events, field observations are documented on the Sample Collection form (SAP Attachment A). Information collected includes:

- Date and time of sampling
- Current weather
- Amount of rainfall in inches in the drainage area, or at the nearest Yavapai County rain gage
- Sampling location and land use in the drainage area (residential, commercial, industrial)
- Any data collected in the field (i.e. air/water temperature, pH, flow rate, dissolved oxygen, etc.)
- Observations regarding possible illicit discharges or pollutant sources

If adverse conditions preclude a required sampling event information on the conditions that prevented sampling will be reported to ADEQ in the Discharge Monitoring Report.

Chain of Custody forms will be completed to document personnel responsible for sample collection, handling, and relinquishment to the laboratory. A blank Chain of Custody form can be found in SAP Attachment B.

Sample Collection Protocols

Sampling of stormwater follows standard procedures and analytical methods conducted at laboratories certified by the Arizona Department of Health Services (ADHS). At this time, Cottonwood has contracted with Legend Technical Services, Inc. for sample analysis services.

Sample collection methods discussed below reflect the general directions of the EPA SW-846 methods compendium. Sampling personnel follow these procedures to the extent possible given field conditions. Collection methodologies may be modified under the direction of a qualified laboratory to achieve analytical goals. Legend Technical Services, Inc. has provided additional sampling instructions, included here as SAP Attachment C.

Sample containers will be obtained from the analysis laboratory or another qualified scientific equipment supplier. Laboratory-provided sample containers typically come prepared in advance with the necessary preservative for the analysis to be completed. To avoid flushing out the included preservative, these containers should not be pre-rinsed and care should be taken to avoid overflowing the vessel.

Hold times listed below indicate the maximum time allowed from sample collection to initiating analysis. However, degradation of pollutants of concern can begin to occur within this period, so it is always best practice to deliver samples to the analysis laboratory as soon as possible after collection.

Additional resources for sampling procedures include ADEQ's Standard Operating Procedures for Surface Water Quality Sampling (2018) and EPA's NPDES Storm Water Sampling Guidance Document (1992). EPA's Industrial Stormwater Monitoring and Sampling Guide (2009), while oriented toward industrial facilities, is generally applicable to municipal stormwater sampling as well.

Escherichia coli (*E. coli*)

Collection vessel: Samples are to be collected in a 100 mL sterile container. The container should have a seal on the cap (shrunk plastic or tape) from the manufacturer that indicates the container is sterile. The seal should not be removed until just before the sample is collected.

Additional collection requirements: Care must be taken to avoid contacting the sample, the inside of the container and cap, and the threads on the container and cap to avoid introducing *E. coli* that may be present on the sampler's gloves.

Preservation: Samples are to be placed on ice in the field and kept under 4°C until analysis. Samples containing chlorine should be preserved with a dechlorinating agent like sodium thiosulfate.

Quality Control: Utilizing the same type of container, a field blank will be prepared utilizing distilled water and kept on ice and transported with the samples.

Hold time: Analysis is to be completed within 6 hours of sample collection.

Metals

Collection vessel: Samples are to be collected with a clean plastic or glass container.

Preservation: Samples are to be acidified with nitric acid to pH <2. Samples may be preserved in the field or at the laboratory within 2 weeks of collection. Preservation status shall be noted on the sample collection and chain of custody forms.

Hold time: Up to 2 weeks prior to preservation, or up to 6 months if acid preserved.

Cyanide

Collection vessel: Samples are to be collected with a clean plastic or glass container.

Preservation: Samples are to be basified with NaOH to pH >12 and cooled to 4°C at the time of collection. Samples containing chlorine should be preserved with a dechlorinating agent**.**

Hold time: up to 14 days if preserved and maintained at 4°C.

Volatile Organic Compounds (VOCs)

Collection vessel: Stormwater samples for VOC analysis are to be collected in specialized volatile organics analysis vials with PTFE seals. Samples should contain no headspace and be properly sealed to minimize the loss of volatile pollutants of concern.

Additional collection requirements: To the extent possible, care should be taken to avoid introduction of air bubbles into the stormwater sample as it is being collected. Given the variable nature of stormwater runoff velocities and inherent mixture of air in outfall discharges this may require collecting the sample from an area of lower flow or less turbulence.

Care should be taken during sample collection, storage, and transportation to avoid contamination of samples by various environmental sources, including running engines and other sources of fumes or vapors. Samples from different locations should be stored in separate sealed plastic bags to prevent cross-contamination between samples with potentially different VOC content.

Quality Control: A travel blank containing organic-free reagent water will be utilized. The travel blank should be kept with the other samples during sampling and transportation to monitor for contamination between samples or from environmental sources of VOCs.

Preservation: Samples are to be placed on ice in the field and maintained at 0 – 6°C until analyzed. Chemical preservation with an acidifying agent may be necessary for analyzing certain compounds but is inappropriate for others. Sampling personnel will follow the guidance of the contracted laboratory including collecting redundant samples utilizing different preservation methods if necessary.

Samples containing chlorine should be preserved with a dechlorinating agent like sodium thiosulfate.

Hold time: Up to 7 days, or 14 days if chemically preserved. Due to the highly volatile nature of pollutants of concern, samples should be delivered to the laboratory for analysis as soon as reasonably possible.

Semi-VOCs, Pesticides, and Polychlorinated biphenyls (PCBs)

Collection vessel: stormwater samples for Semi-VOC analysis are to be collected in glass containers with PTFE-lined caps.

Additional collection requirements: Care should be taken to avoid contacting the sample with gloves or other collection equipment (i.e. grab poles if used). Care should also be taken to avoid contamination of samples during collection and storage by environmental sources like exhaust fumes.

Preservation: Samples are to be placed on ice in the field and maintained at 0 – 6°C until analyzed. Samples containing chlorine should be preserved with a dechlorinating agent like sodium thiosulfate.

Hold time: up to 7 – 14 days.

List of Parameters and Analytical Methods

Impaired Waters Monitoring Parameters

Parameter	Analytical Method	Method Detection Limit (MDL)**	Units	SWQS for Verde River, Spring Creek (FBC)
E. coli	SM 9223-B (Colilert-18)	1 .0	MPN (Most Probable Number) or cfu/100mL	Geometric mean: 126 (min. 4 samples in 30 days) Statistical threshold value: 410 (90^{th} percentile of water quality distribution)

Stormwater Characterization Monitoring Parameters

Parameter (as listed in Appendix B of MS4 Permit)	Parameter * (as listed in AAC, 2016)	Analytical Method	Method Detection Limit (MDL)**	Units	CAS Number	SWQS for Del Monte Wash Designated Uses PBC	A&Wedw Acute	A&Wedw Chronic
Metals								
Antimony	Antimony	200.8	Variable	µg/L	7440360	747 T	1,000 D	600 D
Barium	Barium	200.7	Variable	µg/L	7440393	98,000 T		
Beryllium	Beryllium	200.7	Variable	µg/L	7440417	1,867 T	65 D	5.3 D
Cadmium	Cadmium	200.8	Variable	µg/L	7440439	700 T	See (d) & Table 2	See (d) & Table 3
Nickel	Nickel	200.7	Variable	µg/L	7440020	28,000 T	See (d) & Table 7	See (d) & Table 7
Mercury	Mercury	245.1	Variable	µg/L	7439976	280 T	2.4 D	0.01 D
Silver	Silver	200.8	Variable	µg/L	7440224	4,667 T	See (d) & Table 8	
Thallium	Thallium	200.8	Variable	µg/L	7440280	75 T	700 D	150 D
Inorganics								
Cyanide	Cyanide (as free cyanide)	SM4500-CN E	Variable	µg/L	57125	18,667 T	41 T	9.7 T
Volatile Organic Compounds (VOCs)								
Acrolein	Acrolein	8260	Variable	µg/L	107028	467	34	30
Acrylonitrile	Acrylonitrile	8260	Variable	µg/L	107131	37333	3800	250
Benzene	Benzene	8260	Variable	µg/L	71432	3733	8800	560
Carbon tetrachloride	Carbon tetrachloride	8260	Variable	µg/L	56235	980	18000	1100

Parameter (as listed in Appendix B of MS4 Permit)	Parameter * (as listed in AAC, 2016)	Analytical Method	Method Detection Limit (MDL)**	Units	CAS Number	SWQS for Del Monte Wash Designated Uses		
						PBC	A&Wedw Acute	A&Wedw Chronic
Chlorobenzene	Chlorobenzene	8260	Variable	µg/L	108907	18667	3800	260
Dibromochloromethane	Dibromochloromethane	8260	Variable	µg/L	124481	18667		
Chloroethane	Chloroethane	8260	Variable	µg/L				
2-chloroethylvinyl ether	2-Chloroethyl vinyl ether	8260	Variable	µg/L	110758		180000	9800
Chloroform	Chloroform	8260	Variable	µg/L	67663	9333	14000	900
Bromodichloromethane	Bromodichloromethane	8260	Variable	µg/L	75274	18667		
1,2-dichlorobenzene	1,2-dichlorobenzene	8260	Variable	µg/L	95501	84000	1200	470
1,3-dichlorobenzene	1,3-dichlorobenzene	8260	Variable	µg/L	541731		2500	970
1,4-dichlorobenzene	1,4-dichlorobenzene	8260	Variable	µg/L	106467	373.333	2000	780
1,1-dichloroethane	1,1-Dichloroethylene	8260	Variable	µg/L	75354	46667	15000	950
1,2-dichloroethane	1,2-dichloroethane	8260	Variable	µg/L	107062	186667	59000	41000
1,3-dichloropropylene	1,3-Dichloropropene	8260	Variable	µg/L	542756	28000	3000	1100
Ethylbenzene	Ethylbenzene	8260	Variable	µg/L	100414	93333	23000	1400
Bromomethane	Bromomethane	8260	Variable	µg/L	74839	1307	5500	360
Chloromethane	Chloromethane	8260	Variable	µg/L	74873	0	270000	15000
Methylene chloride	Dichloromethane	8260	Variable	µg/L	75092	56000	97000	5500
1,1,2,2-tetrachloroethane	1,1,2,2-Tetrachloroethane	8260	Variable	µg/L	79345	56000	4700	3200
Tetrachloroethylene	Tetrachloroethylene	8260	Variable	µg/L	127184	9333	6500	680
Toluene	Toluene	8260	Variable	µg/L	108883	280000	8700	180
1,2-trans-dichloroethylene	1,2-trans-dichloroethylene	8260	Variable	µg/L	156605	18667	68000	3900
1,1,1-trichloroethane	1,1,1-trichloroethane	8260	Variable	µg/L	71556	1866667	2600	1600
1,1,2-trichloroethane	1,1,2-trichloroethane	8260	Variable	µg/L	79005	3733	18000	12000
Trichloroethylene	Trichloroethylene	8260	Variable	µg/L	79016	280	20000	1300
Vinyl chloride	Vinyl chloride	8260	Variable	µg/L	75014	2800		
Xylene	Xylenes (T)	8260	Variable	µg/L	1330207	186667		
Semi-VOCs - Acid Extractable								
2-chlorophenol	2-chlorophenol	8270	Variable	µg/L	95578	4667	2200	150

Parameter (as listed in Appendix B of MS4 Permit)	Parameter * (as listed in AAC, 2016)	Analytical Method	Method Detection Limit (MDL)**	Units	CAS Number	SWQS for Del Monte Wash Designated Uses		
						PBC	A&Wedw Acute	A&Wedw Chronic
2,4-dichlorophenol	2,4-dichlorophenol	8270	Variable	µg/L	120832	2800	1000	88
2,4-dimethylphenol	2,4-dimethylphenol	8270	Variable	µg/L	105679	18667	1000	310
4,6-dinitro-o-cresol	4,6-dinitro-o-cresol	8270	Variable	µg/L	534521	3.733	310	24
2,4-dinitrophenol	2,4-dinitrophenol	8270	Variable	µg/L	51285	1867	110	9.2
2-nitrophenol	2-nitrophenol	8270	Variable	µg/L				
4-nitrophenol	p-Nitrophenol	8270	Variable	µg/L	100027		4100	3000
p-chloro-m-cresol	p-chloro-m-cresol	8270	Variable	µg/L	59507		15	4.7
Pentachlorophenol	Pentachlorophenol	8270	Variable	µg/L	87865	28000	See (e), (j) & Table 10	See (e), (j) & Table 10
Phenol	Phenol	8270	Variable	µg/L	108952	280000	7000	1000
2,4,6-trichlorophenol	2,4,6-trichlorophenol	8270	Variable	µg/L	88062	130	160	25
Semi-VOCs – Base/Neutrals								
Acenaphthene	Acenaphthene	8270	Variable	µg/L	83329	56000	850	550
Acenaphthylene	Acenaphthylene	8270	Variable	µg/L				
Anthracene	Anthracene	8270	Variable	µg/L	120127	280000		
Benz(a)anthracene	Benz(a)anthracene	8270	Variable	µg/L	56553	0.2		
Benzo(a)pyrene	Benzo(a)pyrene	8270	Variable	µg/L	50328	0.2		
Benzo(b)fluoranthene	3, 4 Benzfluoranthene	8270	Variable	µg/L	205992	1.9		
Benzo(g,h,i)perylene	Benzo(g,h,i)perylene	8270	Variable	µg/L				
Benzo(k)fluoranthene	Benzo(k)fluoranthene	8270	Variable	µg/L	207089	1.9		
Chrysene	Chrysene	8270	Variable	µg/L	218019	19		
Dibenzo(a,h)anthracene	Dibenz (ah) anthracene	8270	Variable	µg/L	53703	1.9		
3,3’-dichlorobenzidine	3,3'-Dichlorobenzidine	8270	Variable	µg/L	91941	3		
Diethyl phthalate	Diethyl phthalate	8270	Variable	µg/L	84662	746667	26000	1600
Dimethyl phthalate	Dimethyl phthalate	8270	Variable	µg/L	131113		17000	1000
Di-n-butyl phthalate	Dibutyl phthalate	8270	Variable	µg/L	84742	93333	470	35
2,4-dinitrotoluene	2,4-dinitrotoluene	8270	Variable	µg/L	121142	1867	14000	860
2,6-dinitrotoluene	2,6-dinitrotoluene	8270	Variable	µg/L	606202	3733		
Di-n-octyl phthalate	Di-n-octyl phthalate	8270	Variable	µg/L	117840	373333		

Parameter (as listed in Appendix B of MS4 Permit)	Parameter * (as listed in AAC, 2016)	Analytical Method	Method Detection Limit (MDL)**	Units	CAS Number	SWQS for Del Monte Wash Designated Uses		
						PBC	A&Wedw Acute	A&Wedw Chronic
1,2-diphenylhydrazine (as azobenzene)	1,2-Diphenylhydrazine	8270	Variable	µg/L	122667	1.8	130	11
Fluoranthene	Fluoranthene	8270	Variable	µg/L	206440	37333	2000	1600
Fluorene	Fluorene	8270	Variable	µg/L	86737	37333		
Hexachlorobenzene	Hexachlorobenzene	8270	Variable	µg/L	118741	747	6	3.7
Hexachlorobutadiene	Hexachlorobutadiene	8270	Variable	µg/L	87683	187	45	8.2
Hexachlorocyclopentadiene	Hexachlorocyclopentadiene	8270	Variable	µg/L	77474	9800	3.5	0.3
Hexachloroethane	Hexachloroethane	8270	Variable	µg/L	67721	933	490	350
Indeno(1,2,3-cd)pyrene	Indeno (1,2,3-cd) pyrene	8270	Variable	µg/L	193395	1.9		
Isophorone	Isophorone	8270	Variable	µg/L	78591	186667	59000	43000
Naphthalene	Naphthalene	8270	Variable	µg/L	91203	18667	3200	580
Nitrobenzene	Nitrobenzene	8270	Variable	µg/L	98953	467	1300	850
N-nitrosodimethylamine	N-nitrosodimethylamine	8270	Variable	µg/L	62759	0.03		
N-nitrosodi-n-propylamine	N-nitrosodi-n-propylamine	8270	Variable	µg/L	621647	88667		
N-nitrosodiphenylamine	N-nitrosodi-n-phenylamine	8270	Variable	µg/L	86306	290	2900	200
Phenanthrene	Phenanthrene	8270	Variable	µg/L	85018		30	6.3
Pyrene	Pyrene	8270	Variable	µg/L	129000	28000		
1,2,4-trichlorobenzene	1,2,4-trichlorobenzene	8270	Variable	µg/L	120821	9333	1700	300
PCB / Pesticides								
Aldrin	Aldrin	608.3	0.004	µg/L	309002	28	3	
Alpha-BHC	Hexachlorocyclohexane alpha	608.3	0.003	µg/L	319846	7467	1600	130
Beta-BHC	Hexachlorocyclohexane beta	608.3	0.006	µg/L	319857	560	1600	130
Gamma-BHC	Hexachlorocyclohexane gamma (lindane)	608.3	0.004	µg/L	58899	280	1	0.61
Delta-BHC	Hexachlorocyclohexane delta	608.3	0.009	µg/L	319868		1600	130
Chlordane	Chlordane	608.3	0.014	µg/L	57749	467	2.4	0.2
4,4’-DDT	p,p'-Dichlorodiphenyltri-chloroethane (DDT) and metabolites (DDD) and (DDE)	608.3	0.012	µg/L	50293	467	1.1	0.001

Parameter (as listed in Appendix B of MS4 Permit)	Parameter * (as listed in AAC, 2016)	Analytical Method	Method Detection Limit (MDL)**	Units	CAS Number	SWQS for Del Monte Wash Designated Uses		
						PBC	A&Wedw Acute	A&Wedw Chronic
4,4'-DDE	p,p'-Dichlorodiphenyltri-chloroethane (DDT) and metabolites (DDD) and (DDE)	608.3	0.004	µg/L	50293	467	1.1	0.001
4,4'-DDD	p,p'-Dichlorodiphenyltri-chloroethane (DDT) and metabolites (DDD) and (DDE)	608.3	0.011	µg/L	50293	467	1.1	0.001
Dieldrin	Dieldrin	608.3	0.002	µg/L	60571	47	0.2	0.06
Alpha-endosulfan	Endosulfan (Total)	608.3	0.004	µg/L	115297	5600	0.2	0.06
Beta-endosulfan	Endosulfan (Total)	608.3	0.014	µg/L	115297	5600	0.2	0.06
Endosulfan sulfate	Endosulfan sulfate	608.3	0.066	µg/L	1031078	5600	0.2	0.06
Endrin	Endrin	608.3	0.006	µg/L	72208	280	0.09	0.04
Endrin aldehyde	Endrin aldehyde	608.3	0.023	µg/L	7421933		0.09	0.04
Heptachlor	Heptachlor	608.3	0.003	µg/L	76448	467	0.6	0.01
Heptachlor epoxide	Heptachlor epoxide	608.3	0.083	µg/L	1024573	12	0.6	0.01
PCB-1242	Polychlorinatedbiphenyls (PCBs)	608.3	0.065	µg/L	1336363	19	2	0.02
PCB-1254	Polychlorinatedbiphenyls (PCBs)	608.3	nd	µg/L	1336363	19	2	0.02
PCB-1221	Polychlorinatedbiphenyls (PCBs)	608.3	nd	µg/L	1336363	19	2	0.02
PCB-1232	Polychlorinatedbiphenyls (PCBs)	608.3	nd	µg/L	1336363	19	2	0.02
PCB-1248	Polychlorinatedbiphenyls (PCBs)	608.3	nd	µg/L	1336363	19	2	0.02
PCB-1260	Polychlorinatedbiphenyls (PCBs)	608.3	nd	µg/L	1336363	19	2	0.02
PCB-1016	Polychlorinatedbiphenyls (PCBs)	608.3	nd	µg/L	1336363	19	2	0.02
Toxaphene	Toxaphene	608.3	0.240	µg/L	8001352	933	0.7	0.0002

* Parameters highlighted in red appear to be missing from AAC SWQS. Parameters highlighted in orange are the corresponding chemical synonyms listed in AAC.

**MDLs as determined by EPA. MDL actually achieved in a given analysis will vary depending on instrument sensitivity, selected operating conditions, and sample matrix effects. "nd" = Not Determined.

References

1. Arizona Dept. of Environmental Quality. 2018. "Standard Operating Procedures for Surface Water Quality Sampling," Phoenix, AZ
2. U.S. EPA. 1992. "NPDES Storm Water Sampling Guidance Document"
3. U.S. EPA. 2009. "Industrial Stormwater Monitoring and Sampling Guide"
4. U.S. EPA. 1994. "Method 200.7: Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Atomic Emission Spectrometry," Revision 4.4. Cincinnati, OH
5. Standard Methods Committee of the American Public Health Association, American Water Works Association, and Water Environment Federation. 4500-cn− cyanide In: Standard Methods For the Examination of Water and Wastewater. Lipps WC, Baxter TE, Braun-Howland E, editors. Washington DC: APHA Press. DOI: 10.2105/SMWW.2882.077
6. U.S. EPA. 1994. "Method 200.8: Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma-Mass Spectrometry," Revision 5.4. Cincinnati, OH
7. U.S. EPA. 2014. "Method 8270E (SW-846): Semivolatile Organic Compounds by Gas Chromatography/ Mass Spectrometry (GC/MS)," Washington, DC.
8. U.S. EPA. 2006. "Method 8260D (SW-846): Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)," Revision 3. Washington, DC.
9. U.S. EPA. 2016. "Method 608.3: Organochlorine Pesticides and PCBs by GC/HSD,". Washington, DC.
10. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA publication SW-846, Third Edition, Final Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015).

SAP Attachment A
Sample Collection Form

MS4 Stormwater Sampling Form

Outfall Name: Location:	Monitoring Type: ☐ Impaired Waters ☐ Characterization Monitoring
Person(s) collecting sample:	Title(s):
Weather Conditions Air Temperature:	Cloud Cover (%): Precipitation:
Discharge Began Date: Time:	Nature of Discharge: ☐ Rainfall ☐ Snowmelt Rainfall Amount (inches): Gage location:
Sample Collected Date: Time:	Unique Sample Identifier: (Must match identifier on Chain of Custody)
Substitute Sample? ☐ No ☐ Yes If yes, when was sample originally scheduled to be collected:	
Field Sampling Data	
Type of Sample: ☐ Grab ☐ Discrete ☐ Manual ☐ Auto sampler (Date/time collected):	
Field Parameter Measurements (if applicable) H_2O Temperature: pH:	Conductivity: Turbidity: Flow Rate:
Field Filtration/Preservation Methods:	
QC Sample (check all that apply): ☐ Field Blank ☐ Travel Blank ☐ Duplicate ☐ Other:	
Field Instrument Calibration Data (if applicable):	
Indicators of Stormwater Pollution Observed? ☐ No ☐ Yes (Describe):	
Description of any problems encountered, or deviations made from the sampling plan:	
Certification Statement	
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."	
Name:	Title:
Signature:	Date Signed:

SAP Attachment B
Chain of Custody Form

Laboratory Sample ID:

CHAIN OF CUSTODY RECORD

LEGEND Technical Services, Inc.

☐ 17631 N. 25th Avenue • Phoenix, AZ 85023 • (602) 324-6100 • Fax (602) 324-6101
☐ 4585 S. Palo Verde Rd, Ste 423 • Tucson, AZ 85714 • (520) 327-1234 • Fax (520) 327-0518

Page _____ of _____

Please Print Clearly

CLIENT INFORMATION

Client Name	Address	City	State	Zip	Phone	Fax Number or Email Address
City of Cottonwood	1490 W. Mingus Ave	Cottonwood	AZ	86326	928-340-2772	

Project Name	Project Number	Contact	P.O. No.	
Stormwater				Fax Results ☐ Email Results ☐ QC Report ☐ EDD ☐ Special Detection Limits ☐

SAMPLE TYPE CODES

DW=Drinking Water; WW=Wastewater; SW=Surface Water; G=Groundwater; O=Other; S=Soil/Solid; T=Travel Blank; F=Food; G=Sludge/Biosolids; O= Stormwater

TURN AROUND TIME

Laboratory Authorization Required for Rush

☐ Standard 10 - 15 Day
☐ Other

REQUESTED ANALYSES

Client's Sample Identification	Date	Time	Sample Location	Composite	Grab	Sample Type	Compliance	No. of Containers	pH ✓ (Lab Use Only!)	E. coli	Cyanide	608.3	8270D	8260B AC/AC/2-CEVE	8260B Water (no 2-CEVE	Antimony, ICP-MS	Barium, Total	Beryllium, Total	Cadmium, ICP-MS	Mercury 245.1	Nickel, Total	Silver, ICP-MS	Thallium, ICP-MS	Total Hardness		LAB NO.
City of Cottonwood					x	O	x			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
Travel Blank					x	DI	x							x	x											

TO ENSURE COMPLETION OF ANALYSIS, SAMPLES MUST BE RECEIVED AT LEAST 3 HOURS PRIOR TO THE HOLD TIME EXPIRATION

Comments / Special Instructions:

SAMPLE CONDITION UPON RECEIPT (Lab Use)		
No. of Containers		
Temperature		° C
Custody Seals	Y	N
Seals Intact	Y	N
Preserved	Y	N

	RELINQUISHED BY		SAMPLES RECEIVED BY	
①	Sampler Signature	Date	Signature COURIER	Date
	Sampler Printed Name	Time	Printed Name	Time
②	Signature COURIER	Date	Signature	Date
	Printed Name	Time	Printed Name	Time
③	Signature	Date	Signature	Date
	Printed Name	Time	Printed Name	Time

WHITE-LAB YELLOW-CLIENT

FORM GEN-170 (05/06)

SAP Attachment C
Additional Sampling Instructions

LEGEND
Technical Services, Inc.

Sampling, Preservation and Shipping Instructions Checklist

Samples that are collected for shipment or delivery to our laboratory are very valuable. We want to ensure the proper handling of those samples as set forth by the various state and federal agencies that oversee environmental testing. Legend Technical Services of Arizona (Legend) provides the sample bottles at no charge to assure that the proper bottles are used for the required analyses. If you have any questions, please contact a Client Service Representative at Legend.

1. Before Sampling:

- ❑ Please check the contents of your cooler to ensure that bottles have been provided for all requested analyses. The analysis requested is written on each corresponding container. Some analyses may require more than one container while others may share a container.
- ❑ Some analysis requires Travel Blanks (TB) as a control. These 40mL vials will already be filled with DI Water and will be labeled "TB" or "Travel Blank" and should not be altered in any way. The purpose of Travel Blanks is to determine if there was any contamination while in transit.
- ❑ In order to keep samples at the required temperature of 4° Celsius, and meet all method holding times, plan to collect samples immediately prior to shipping them or delivering to Legend. All samples should be stored with wet ice in a cooler. (Metals analysis preserved in Nitric Acid is the only exception. They do not need to be kept cold.)

2. Sampling Steps:

- ❑ The Chain of Custody must be filled out completely to ensure proper test results.
  - Please fill in the client name, address and contact information of where you want the final report to be sent to. Results will not be released to anyone not listed on the Chain of Custody. Additional contact information can be listed in the Comments/Special Instructions area at the bottom of the Chain of Custody.
  - Create a sample identification that will help you identify your sample on the final report, such as sample location or address.
  - The date and time the sample was taken is required to be documented on the Chain of Custody in the date and time columns.
  - The analyses desired are required to be documented on the Chain of Custody in the diagonal "Requested Analyses" columns.
- ❑ On each container, indicate sampling date, time, sample identification and client name with a permanent marker. Sample information on the containers must match the written documentation on the Chain of Custody.
- ❑ **Do not rinse the sample containers**. **The powders and liquids in the container are chemical preservatives that are required for the tests being performed. Keep containers and preservatives out of the reach of children. Avoid skin contact. We recommend you wear safety glasses and gloves. If you come into contact with any preservative, immediately flush the area thoroughly with water. Avoid getting preservative on clothing and other sensitive surfaces. A complete copy of the Material Safety Data Sheet for each preservative is available from Legend.**

- **624/8260B (Volatile Organic Compounds):**
  For EPA 624 or 8260B, Legend has provided eight, 40mL vials with blue and white labels. The sample stream/flow should be slow enough to prevent tiny air bubbles from purging the sample during collection. Avoid trapping air bubbles in the sample. Fill the vials until a meniscus forms at the mouth of the vial, but do not overflow. (If you look at the vial from the side, the water should make a dome over the top of the vial.) You can also use the cap of the container to slowly add additional sample water. Screw on the lid. Some water may overflow from the vial as you screw on the lid. If you turn the vial upside down, there should be no air bubbles. If there are air bubbles, do not dump out the sample and start over. Continue adding drops of water until there are no more air bubbles.
  Travel Blanks (2- 40mL vials with blue and white labels) will be accompanying the sample vials. They are already filled with DI Water and should not be altered in any way. They are to determine if there was any contamination while in transit.

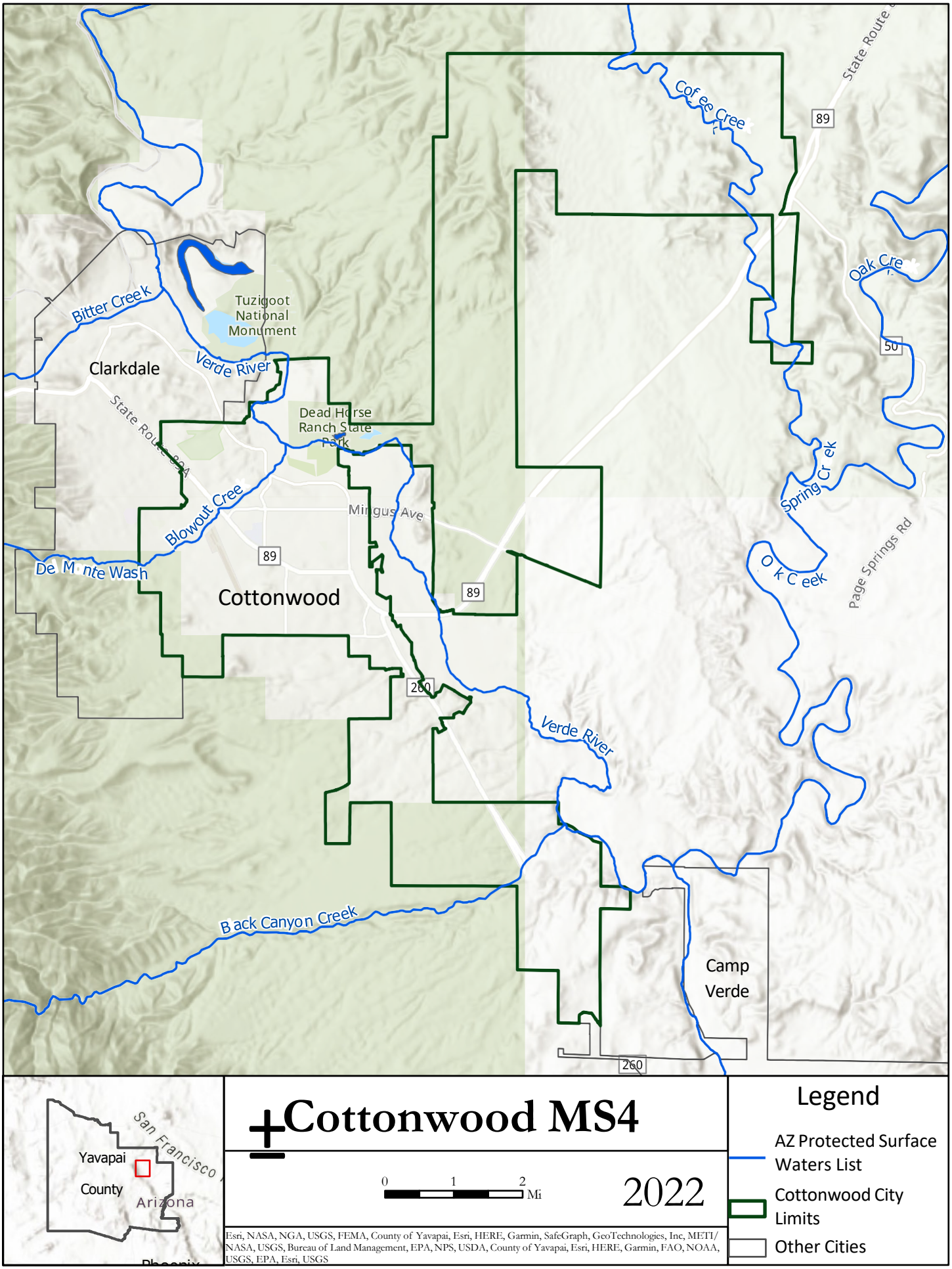
- **All other containers between 250mL-1L:**
  Fill all other containers to the neck of the container. Be cautious not to overflow, rinse out or spill the preservatives contained in the bottles.

- **Cyanide Kit:** Please follow dechlorinating sample instructions provided with the Cyanide kit.

3. Shipping Instructions:

- Pack samples in enough ice to keep them between 2° and 6° Celsius until they arrive at Legend. Ice cubes are always recommended over blue ice packs. Do NOT use dry ice. (Metals analysis preserved in Nitric Acid does not need to be kept cold.)
- Samples should be returned immediately after collection. Some analyses are time sensitive and may need to be at Legend within as little as four hours of sampling. If you are unsure of the holding time of your sample, please contact a Client Services representative.
- If you send your samples via courier (UPS, Fed Ex, US Mail, etc.), be extremely careful when packaging the samples. Provide enough packaging material to sufficiently cushion samples so that they are unable to shift while in transit.
- Before shipping your samples, be sure to complete the “Relinquished By” box at the bottom of the Chain of Custody and that the Chain of Custody is packed so that it doesn’t get wet from the ice while in transit.

SAP Attachment D
MS4 Map


Cof ee Cree
State Route
89
Oak Cre
50
Bitter Creek
Tuzigoot
National
Monument
Clarkdale
Verde River
State Route 89A
Dead Horse
Ranch State
Park
Spring Cr ek
Mingus Ave
Blowout Cree
De M nte Wash
89
Cottonwood
89
O k C eek
Page Springs Rd
260
Verde River
B ack Canyon Creek
Camp
Verde
260
San Francisco
Yavapai
County
Arizona
Phoenix
Cottonwood MS4
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2022
Esri, NASA, NGA, USGS, FEMA, County of Yavapai, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/
NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, County of Yavapai, Esri, HERE, Garmin, FAO, NOAA,
USGS, EPA, Esri, USGS
Legend
AZ Protected Surface
Waters List
Cottonwood City
Limits
Other Cities

Attachment K

IDDE Standard Operating Procedures

Instructions for completing the DRY WEATHER INSPECTION/IDDE INVESTIGATION FORM

General Directions:

Complete form in ink. Strike out incorrect entries with a single line; write correct values or descriptions above or near the struck-out entries.

At the completion of each outfall inspection, the inspector/investigator is responsible for ensuring that the Dry Weather Inspection/IDDE Investigation Form has been completely and correctly filled out and that all data and remarks are legible. The completed form should be scanned to PDF or the data transferred to a Word version of the form. Information from the form should be entered into the IDDE Investigation Tracking Table.

Section 1: Background Data

Outfall ID: Enter the outfall identification number from the stormwater outfall inventory.

Date: Enter date including day month and year.

Time: Use a.m. or p.m. designation (for example - 8:30 a.m., or 1:30 p.m.).

Inspector: Enter the name of the person or persons conducting the inspection/investigation.

Type of investigation: Check the appropriate box for the type of assessment being conducted: dry weather inspection, investigation of a reported illicit discharge, or 3-day follow-up inspection.

Photos? (Yes/No): Document observations with photographs whenever possible. Cameras that automatically date and time stamp photographs are preferred. Photographs should be appended to the final copy of the form and included in the electronic version of the form as well.

Precipitation within last 48 hours: Note weather there has been measureable rainfall in the investigation area within the last 48 hours.

Weather: A concise description of the weather conditions at the time of the assessment including approximate temperature.

Land Use: Check all known land uses that occur within the investigation area. If the industrial box is checked, any known industries should be listed to facilitate potential tracing efforts.

Section 2: Outfall Description

Outfall Description: Indicate whether outfall is closed pipe or open drainage and provide the appropriate details in the area provided.

Section 3: Physical Indicators

This section provides a description of the condition of the outfall. These physical indicators

may provide evidence that illicit discharges have occurred when there is no flow at the time of the investigation. **This section is to be completed whether or not there is flow.**

Complete the table, adding comments when there are positive findings under the descriptions of physical indicators.

Do physical indicators suggest an illicit discharge has occurred? (Yes/No): Answer yes if there is physical evidence of past or current illicit discharges.

Flow Present (Yes/No): A *Yes* or *No* is entered here to indicate the presence or absence of dry-weather flow or illicit discharge. If the outfall is submerged or inaccessible, "See Notes" is entered and an explanation provided in the "Notes" section.

Flow Chart Procedure:

- If *No* is entered for flow and physical indicators, close the investigation and complete Section 7 of the form.
- If *No* is entered for flow but physical indicators are present, schedule a 3-Day Follow-Up inspection and complete Section 7.
- If *Yes* is entered for flow (regardless of the presence of physical indicators), complete proceed to Section 4.

Section 4: Discharge Description (Flowing Outfalls Only)

Complete table describing outfall characteristics (odor, color, turbidity, floatables). This section is filled out for flowing outfalls only.

Odor: The presence of an odor is assessed by fanning the hand toward the nose over a wide-mouth container of the sample, keeping the sample about 6 to 8 inches from the face. Be careful not to be distracted by odors in the air. Provide a description of the odor, if present.

Color: The presence of color in the discharge is to be assessed by filling a clean glass sample container with a portion of the grab sample and assessing the color, if color is present. If a color chart is used, the number corresponding to the color matching the sample is to be entered in this blank.

Turbidity: Turbidity is a measure of the clarity or cloudiness of water. Turbidity may be caused by many factors, including suspended matter such as clay, silt, or finely divided organic and inorganic matter.

Floatables: The presence of floating scum, foam, oil sheen, plant debris or other materials on the surface of the discharge are to be noted. Describe of any floatables present that are attributable to discharges from the outfall. Do not include trash originating from areas adjacent to the outfall in this observation. Refer to Figure 5 and Table 4 of the SMPP.

After documenting the physical properties of the discharge, the field crew should attempt to trace the flow to its source. If the flow originates underground and access to manholes in roadways is required for tracking, the process may need to be delayed until proper safety procedures (traffic control, confined space entry, etc.) can be arranged.

Flow Chart Procedure:

- If the discharge can be tracked, implement tracking procedures and identify the source.
- If the discharge cannot be tracked and shows signed of significant contamination, conduct field screening according to Section 5.

Section 5: On-Site Sampling/Testing (Flowing Outfalls Only)

Discharge samples are collected from the middle, both vertically and horizontally, of discharge in a clean glass container. Samples can be collected by manually dipping a sample container into the flow or with a long-handled dipper, if needed.

Conduct field screening of the sample according to the manufacturer's instruction included in the field test kit. Document findings on the form.

Dispose of the sample as follows:

- If no chemical or reagents have been added to the sample, the water can be poured on the ground.
- If any chemical or reagent is added to the sample, pour the water into a container marked "Liquid Waste" for proper disposal to a sanitary sewer system at the end of the day.

Flow Chart Procedure:

- If tracing indicates that laboratory analysis is necessary to link the illicit discharge to a specific source or to document source for enforcement purposes, proceed to Section 6.
- If such documentation is not necessary, proceed to Section 7 and close the investigation.

Section 6: Data Collection for Lab Testing

Contact laboratory and procure appropriate sample bottles for the requested analyses. Follow proper water quality sampling analytes.

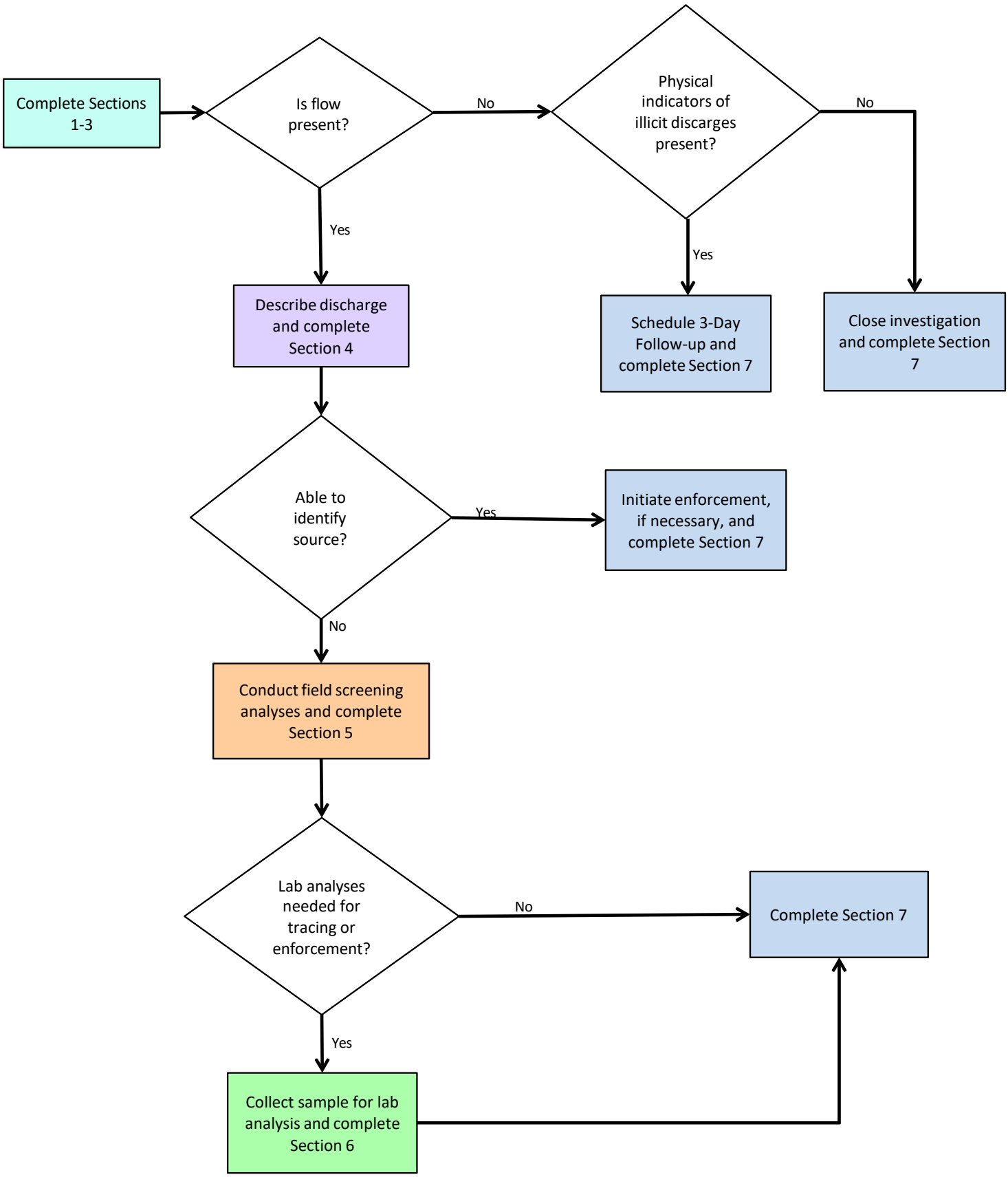
Section 7: Enforcement and Resolution

Check the appropriate box for the resolution of the investigation: Source Identified, 3-Day Follow-up Inspection, or Investigation Closed.

Enforcement Action: Identify whether enforcement action was taken. Describe the action: verbal notice, written notice, etc.

Source/Resolution: Describe the source if found and final resolution. For example: "Source was broken irrigation system. Owner repaired the system after receiving verbal notice."

FLOW CHART FOR DRY WEATHER INSPECTION/ IDDE INVESTIGATION FORM
CITY OF COTTONWOOD



DRY WEATHER INSPECTION/ IDDE INVESTIGATION FORM
CITY OF COTTONWOOD

Section 1: Background Data

Outfall ID:	Date:	Time:
Inspector/Investigator:		
☐ Dry Weather Inspection ☐ IDDE Investigation ☐ 3-Day Follow-up Inspection		
Photos? ☐ Yes ☐ No If yes, append photos to this report.		
Precipitation w/in last 48 hours? ☐ Yes ☐ No	Weather (approx. temp, etc.):	
Land Use in Drainage Area (check all that apply): ☐ Industrial ☐ Residential ☐ Commercial	☐ Open Space Other: _____ Known Industries: _____ _____	

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
Storm Sewer (Closed Pipe)	☐ RCP ☐ PVC ☐ Steel ☐ CMP ☐ HDPE ☐ Clay/drain tile ☐ Other: _____	☐ Circular ☐ Elliptical ☐ Box ☐ Other: _____	☐ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter / Dimensions: _____ X	In Water: ☐ No ☐ Partially ☐ Fully In Sediment: ☐ No ☐ Partially ☐ Fully
Open drainage (swale / ditch)	☐ Concrete ☐ Earthen ☐ Rip-Rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	

Section 3: Physical Indicators

INDICATOR	DESCRIPTION	COMMENTS
Outfall Damage	☐ None ☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion ☐Other:_____	
Deposits / Stains	☐ None ☐ Oily ☐ Flow Line ☐ Paint ☐ Other:_____	
Abnormal Vegetation	☐ None ☐ Excessive ☐ Inhibited	
Poor Water Quality	☐ None ☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:_____	
Pipe Algae Growth	☐ None ☐ Brown ☐ Orange ☐ Green ☐ Other:_____	
Do physical indicators suggest an illicit discharge has occurred? ☐ No ☐ Yes		
Flow Present?	☐ Yes If yes, describe: ☐ Trickle ☐ Moderate ☐ Substantial And go to Section 4. ☐ No If no flow and no physical indicators, skip to Section 7 and close investigation. If no flow but physical indicators are present, skip to Section 7 and schedule 3-Day Follow-Up.	

DRY WEATHER INSPECTION/ IDDE INVESTIGATION FORM
CITY OF COTTONWOOD

Section 4: Discharge Description (flowing outfalls only)

INDICATOR	CHECK if Absent	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐ (No odor)	☐ Sewage ☐ Rancid/Sour ☐ Sulfide ☐ Laundry ☐ Petro/gas ☐ Other: _____	☐ 1-Faint	☐ 2-Easily detected	☐ 3-noticeable from a distance
Color	☐ (Colorless)	☐ Gray ☐ Brown ☐ Yellow ☐ Green ☐ Red/Orange ☐ Multicolor ☐ Other: _____	☐ 1-Faint color visible in sample bottle	☐ 2-Color clearly visible in sample bottle	☐ 3-Clearly visible in outfall flow
Turbidity	☐ (Clear)	See severity	☐ 1-Slightly cloudy	☐ 2-Cloudy	☐ 3-Opaque
Floatables – does not include trash!	☐ (Clean)	☐ Sewage ☐ Suds/Foam ☐ Oil sheen ☐ Plant Debris ☐ Other: _____	☐ 1-Few/slight; origin not obvious	☐ 2-Some indications of origin	☐ 3-Some; origin obvious
Do physical indicators suggest an illicit discharge is present? (Y/N)					
Able to trace flow to source? ☐ Yes If yes, proceed to Section 7. ☐ No If no, proceed to Section 5.					

Section 5: Field Screening Analyses (flowing outfalls only)

Parameter	Results	Comments	Equipment
Temperature			
pH			
Total Residual Chlorine			
Phenols			
Detergents			
Total Copper			

Section 6: Sample Collected for Lab Testing (see flow chart) (flowing outfalls only)

1. Sample for the lab?	☐ Yes ☐ No	If no, explain (source identified, or other): _____
2. Chain of Custody (COC) completed:	☐ Yes ☐ No	COC Information (Date, Time, Lab Name): _____
3. Analyses requested:	☐ *E. coli* ☐ Metals ☐ Oil & Grease ☐ Total Petroleum Hydrocarbons ☐ VOCs ☐ SVOCs ☐ Pesticides ☐ PCBs ☐ Other _____	

Section 7: Enforcement and Resolution

☐ Source identified (describe below) ☐ 3-Day Follow-up Inspection required (describe reason why below) ☐ No flow and no sign of illicit discharge, investigation closed.
Enforcement action taken? ☐ Yes ☐ No If yes, describe:
Source/Resolution:

Attachment L

MS4 Permit

ARIZONA DEPARTMENT
OF
ENVIRONMENTAL QUALITY

Arizona Pollutant Discharge Elimination System
General Permit for Stormwater Discharges
From Small Municipal Separate Sewer Systems
to Protected Surface Waters

This permit provides authorization to discharge under the Arizona Pollutant Discharge Elimination System (AZPDES) program, in compliance with the provisions of the Arizona Revised Statutes (A.R.S), Title 49, Chapter 2, Article 3.1, the Arizona Administrative Code (A.C.C.), Title 18, Chapter 9, Article 9, and Chapter 11, Article 1; and the Clean Water Act as amended (33 U.S.C. 1251 *et seq*.). This general permit authorizes stormwater discharges of pollutants from small municipal separate storm sewer systems (MS4s) in Arizona to Protected Surface Waters, pursuant to federal conditions in 40 CFR § 122.34 and A.R.S. Title 49 Chapter 2, Article 3.1 *et seq*. State requirements for discharges to non-WOTUS protected surface waters are enforceable solely by the Arizona Department of Environmental Quality (ADEQ). All discharges authorized by this general permit shall be consistent with the terms and conditions of this general permit.

This general permit is effective on September 30, 2021.

This general permit and the authorization to discharge expires at midnight on September 29, 2026.

This general permit was modified on Sep 16, 2022

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Trevor Baggiore, Director
Water Quality Division

Contents

1.0 COVERAGE UNDER THIS GENERAL PERMIT

1.1 **Permit Area** (40 CFR 122.28(a)(1))

This permit covers and applies to traditional and non-traditional regulated, Small Municipal Separate Storm Sewer Systems (MS4s) in Arizona except those located in Indian Country. This permit is not authorized for use by sites with stormwater discharges associated with MS4s on any Indian Country lands in Arizona. Authorization for discharges in Indian Country must be obtained through US EPA Region IX or other appropriate authority.

- City or Town – Urbanized area(s) determined by the most recent Decennial Census by the Bureau of Census, including areas annexed during the permit term;
- County – Unincorporated urbanized area determined by the most recent Decennial Census by the Bureau of Census;
- State, federal, and other publicly-owned properties that the Director determines contributes to a violation of a water quality standard or is a significant contributor of pollutants to protected surface waters; and
- Areas outside of an urbanized area as designated by the Director pursuant to Arizona Administrative Code (A.A.C.) R18-9-A902(D).
- If your small MS4 is not located entirely within an urbanized area, only the portion that is within the urbanized area is regulated, pursuant to 40 CFR 122.32(1)(a).

1.2 **Eligibility** (40 CFR 122.32)

This permit authorizes the discharge of stormwater from MS4s to all waters on the protected surface water list, including discharges to waters of the U.S. (WOTUS) and non-WOTUS protected surface waters. The requirements of discharges to non-WOTUS protected surface waters are state-only, and enforceable solely by ADEQ. An MS4 requiring coverage:

1. Is located fully or partially within an urbanized area as determined by the latest Decennial Census by the Bureau of Census; or
2. Is designated for permit authorization by the department under the A.A.C. R-18-9-A902(D)(1), R18-9-A902(D)(2), R-18-9-A902(E), R18-9-A905(A)(1)(f) which incorporates 40 CFR §122.32.
3. Existing permittees shall implement all requirements of this permit within one (1) year of the effective date of the permit. Existing permittees shall maintain their Stormwater Management Program (SWMP) implemented under the 2016 Phase II MS4 permit until requirements of this permit are implemented.
4. New permittees shall implement all requirements of this permit within two (2) years of obtaining permit coverage. During the first two permit years, new

permittees may request, in writing to ADEQ, a one-time extension of one (1) additional year to complete a specific permit requirement. Requests should be emailed to AZPDES@azdeq.gov.

1.3 Limitations of Coverage

This general permit does not authorize:

1. Discharges mixed with sources of non-stormwater unless the non-stormwater discharges comply with an applicable NPDES or AZPDES permit, as addressed in Part 6.3(6), IDDE;
2. Stormwater discharges associated with industrial activity as defined in 40 CFR §122.26(b)(14)(i)-(ix) and (xi);
3. Stormwater discharges associated with construction activity as defined in 40 CFR §122.26(b)(14)(x) or 40 CFR §122.26(b)(15);
4. Stormwater discharges currently covered under another permit;
5. Discharges to impaired or not-attaining waters, listed in the Clean Water Act 303(d) list of Impaired Waters, if discharge(s) from the MS4 contain, or may contain, pollutant(s) for which the receiving water is listed except:
    a. If a TMDL has been established and the stormwater management program (SWMP) is consistent with the requirements of the TMDL, including any wasteload allocation or load allocation in the TMDL. (See Appendix C for specific TMDL wasteload allocations.) The SWMP shall also identify Best Management Practices (BMPs) the permittee will use to meet wasteload allocations or load allocations and include monitoring for associated pollutant(s); and
    b. If a TMDL has not been established and the SWMP includes a section describing how the program will control the discharge of 303(d) listed pollutants and ensure to the maximum extent practicable that discharges from the MS4 will not cause or contribute to exceedances of surface water quality standards (SWQS). The SWMP shall also identify BMPs the permittee will use to control discharges and include monitoring of their effectiveness.
6. New or expanded point-source discharges directly to water classified as an Outstanding Arizona Water (OAW) under A.A.C. R18-11-112.

1.4 **Permit Compliance** (40 CFR 122.36)

Non-compliance with any requirement of this permit constitutes a violation of the permit and may result in an enforcement action, including notices of violation, consent orders, injunctive relief and/or penalties under state and federal laws.

2.0 AUTHORIZATION UNDER THIS PERMIT

Existing permittees that have coverage as of the effective date of this permit:

1. Within the first year of this permit, the permittee shall update the SWMP as necessary to comply with the requirements of Part 4 of this permit; and
2. Within the first 60 calendar days from the effective date of this permit, the permittee shall submit a new NOI in myDEQ. The MS4 may continue to comply with the terms and conditions of the expired permit (AZG2016-002) until the NOI is submitted and payment is made for the permit application fee.

New permittees shall submit a NOI in myDEQ and pay the permit application fee to obtain coverage under this permit.

2.1 Notice of Intent (NOI)

1. A person seeking authorization to discharge under this general permit shall submit to the department a complete and accurate NOI on a form provided by the department and includes, at a minimum, the following information:
   a. Name of MS4;
   b. Operator name and title;
   c. Mailing address;
   d. Annual fee billing information;
   e. Contact person;
   f. Contact information;
   g. Estimated population of regulated area (based on most recent decennial census by the Bureau of Census);
   h. Protected surface water(s);
   i. The number of outfalls that discharge to a protected surface water(s); and
   j. Outfall name or identification, for outfalls required in "i" above.
2. If the department notifies the applicant of deficiencies or inadequacies in any portion of the NOI, or requests additional information, the applicant shall correct the deficient or inadequate portions and submit a revised NOI that addresses the deficiencies within seven (7) days of receiving notification.
3. The permittee shall submit a revised NOI to the department within fifteen (15) days whenever there is a change of information (certifying official, mailing address, contact information, etc.).

2.2 Permit Fees

Permittees are subject to fees established in A.A.C. R18-14-109, Table 6. The department will issue an invoice annually to the permittee at the address identified on the NOI. Permittees shall submit the applicable fee when submitting an NOI to obtain coverage under this permit.

2.3 Terminating Coverage (NOT)

A permittee may terminate coverage under this general permit by submitting a NOT on a form provided by the department. Authorization to discharge terminates at midnight on the day the NOT is received by the department.

If the operator does not obtain coverage under an alternate AZPDES permit that authorizes the discharge of stormwater prior to submitting the NOT, the operator will be considered discharging without a permit.

NOTs shall be signed in accordance with Part 9.9 and shall be submitted to ADEQ via email at AZPDES@azdeq.gov. The email subject line must include "Termination – MS4 Permittee Name."

2.4 Coverage under an Individual Permit

Pursuant to A.A.C. R18-9-C902, a person may request, or be required by the Director, to obtain coverage under an individual permit.

2.5 Continuation of this General Permit

If this permit is not reissued prior to the expiration date, it will be administratively continued in accordance with A.A.C. R18-9-C903 and remain in force and effect for discharges that were authorized prior to expiration.

If the MS4 operator does not submit a timely, complete, and accurate NOI requesting authorization to discharge under a reissued permit or a timely request for authorization under an individual or alternative general permit, authorization under this permit will terminate on the effective date of the reissued permit unless otherwise specified in this permit. See Part 2.0.

3.0 STORMWATER PROGRAM ENFORCEMENT

3.1 Establish Enforcement Procedures (40 CFR 122.34(b)(3)(B))

Permittees shall adopt and implement local ordinance(s) or other regulatory mechanism(s) that provide adequate enforcement procedures to satisfy the requirements of this permit to control pollutant discharges into its MS4.

3.2 Enforcement Requirements

If not already developed, the permittee shall establish and exercise enforcement procedures to comply with this permit. To be considered adequate, enforcement procedures shall, at a minimum, address the following:

1. Prohibit and eliminate illicit connections and discharges to the MS4;
2. Control the discharge of spills, and prohibit dumping or disposal of material other than stormwater into the MS4;
3. Require compliance with conditions in the permittee's ordinances, permits, contracts, or orders;
4. Require owners/operators of construction activities, new or redeveloped land, and industrial and commercial facilities to minimize the discharge of pollutants to the MS4 through the installation, implementation, and maintenance of stormwater control measures;
5. To the extent allowed under State law, the permittee shall have methods to enter private property for the purpose of inspecting at reasonable times any facilities, equipment, practices, or operations related to stormwater discharges to determine whether there is compliance with local stormwater control ordinances/standards;
6. The permittee shall promptly require violators cease and desist illicit discharges or discharges of stormwater in violation of any ordinance or standard and/or cleanup and abate such discharges;
7. To the extent allowable under State and federal law, the permittee shall impose civil or criminal sanctions (including referral to a city or district attorney) and escalate corrective response, consistent with its enforcement response;
8. Identify departments within the permittee's jurisdiction that conduct stormwater-related activities and their roles and responsibilities under this permit. Include an up-to-date organizational chart specifying these departments and key personnel positions;
9. Identification of the local administrative and legal procedures and ordinances available to mandate compliance with stormwater-related ordinances and therefore with the conditions of this permit; and

10. A description of how stormwater related-ordinances are implemented and appealed.

3.3 Enforcement Response Plan(s)

The permittee shall develop an enforcement response plan (ERP) that specifies how it will exercise its legal authority to comply with this permit. The ERP shall include a prioritization schedule that establishes escalated enforcement for non-compliance of illicit discharges and construction activities. In developing the ERP, the permittee shall include the following factors in prioritizing escalated enforcement:

1. Severity of non-compliance;
2. Repeated non-compliance;
3. Proximity to a receiving water or storm sewer system; and
4. Other appropriate factors.

4.0 STORMWATER MANAGEMENT PROGRAM

The permittee shall develop, implement, and enforce a Stormwater Management Program (SWMP) that is designed to reduce the discharge of pollutants from the MS4 to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the federal Clean Water Act and A.R.S Title 49 Chapter 2, Article 3.1 *et seq*. The program shall be documented and available for review by ADEQ, U.S. EPA, and interested persons.

1. Existing permittees shall modify or update their existing SWMP to meet the terms and conditions of this permit within one (1) year of the effective date of this permit**.**
2. New permittees shall develop a SWMP that meets the conditions of this permit within two (2) years of the effective date of their coverage.
3. At a minimum, and at least annually, all permittees shall assess, evaluate, and update the SWMP and incorporate any revisions necessary to maintain permit compliance. The annual SWMP review shall occur in connection with preparing the annual report (see Parts 8.1 and 8.3).

4.1 Contents of the Stormwater Management Program

At a minimum, the SWMP shall contain the following:

1. Listing of all protected surface waters, their classification under the applicable state surface water quality standards (SWQS), any impairment(s) and associated pollutant(s) of concern, applicable TMDLs and WLAs, and number of outfalls from the MS4 that discharge to each waterbody;
2. The process and schedule for creating and maintaining an up-to-date map that includes, at a minimum, the storm sewer system, outfalls, and protected surface waters;
3. Illustrate any areas that are not subject to the MS4 and identify why there is no discharge within the MS4 boundaries;
4. Listing of all known, ongoing discharges that cause or contribute to the exceedance of an applicable surface water quality standard;
5. Description of practices to achieve compliance with the permit. For each permit condition identify:
    a. The personnel, position or department responsible for implementing the measure; and
    b. The BMPs for each control measure or permit requirement.
6. Description of practices to achieve compliance with applicable TMDLs or waste load allocation, including measurable goal(s) for each BMP and

corresponding milestones and timeframes. Each goal shall have an associated measure of assessment;

7. Analytical monitoring program for impaired or not-attaining waters, and for Outstanding Arizona Waters to ensure compliance with permit limitations, wasteload allocation(s), and SWQS;
8. The analytical monitoring program shall include a Sampling and Analysis Plan (SAP) that includes the following minimum components: sample collection, equipment and containers, decontamination, calibration procedures, sample frequency (based on illicit discharge characteristics), document site conditions, field notes, sample preservation, tracking (chain-of-custody), and handling;
9. Protocol for annual program evaluation (Part 8.1). Update annually and maintain copies; and
10. Identification of personnel (department, position, etc.) responsible for program implementation.

4.2 Stormwater Management Plan Availability

The permittee shall retain a copy of the current SWMP required by this permit at the office or facility identified on the NOI and shall be available upon request by ADEQ or U.S. EPA, or their authorized representatives.

A copy of the most up-to-date SWMP shall be made available to the public during normal business hours and posted on the permittee's website.

5.0 WATER QUALITY STANDARDS

The permittee shall develop, implement and enforce a program to reduce the discharge of pollutants from the MS4 to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of federal and state laws.

5.1 Water Quality Based Effluent Limitations

Pursuant to Clean Water Act 402(p)(3)(B)(iii) and A.R.S 49-255.04, this permit includes provisions to ensure that discharges from the permittee's small MS4 do not cause or contribute to an exceedance of SWQS, in addition to requirements to reduce the discharge of pollutants to the maximum extent practicable.

To assure compliance with permit limitations, ADEQ may require the permittee to conduct analytical monitoring and will provide notice to the permittee in writing (see Part 7).

5.2 Surface Water Quality Standards (SWQS)

1. The permittee shall implement the six (6) Minimum Control Measures (MCMs) specified in Part 6 to the maximum extent practicable to protect water quality, and to satisfy water quality requirements of the Clean Water Act, including attainment of SWQS.
2. If the permittee discovers, or is otherwise notified by ADEQ or U.S. EPA, that a discharge from the MS4 is causing or contributing to an exceedance of an applicable surface water quality standard, the permittee shall expand or better tailor its BMPs within the scope of the six (6) minimum control measures in Part 6.0 to achieve progress toward attainment of SWQS. The requirements for discharges to non-WOTUS protected surface waters are state-only, and enforceable solely by ADEQ.

6.0 MINIMUM CONTROL MEASURES

The permittee shall reduce the discharge of pollutants to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate requirements of the Clean Water Act and A.R.S 49-255.04 by implementing the six (6) minimum control measures (MCMs) in parts 6.1 – 6.6 below.

1. Existing permittees shall continue to implement their existing SWMPs while making updates pursuant to this permit. This permit does not extend the compliance deadlines set forth in previous permits.
2. Implementation of one (1) or more of the minimum control measures described in Parts 6.1 – 6.6 or other permit requirements may be shared with another entity (including another interconnected MS4) or the other entity may fully implement the measure or requirement, if the following requirements are satisfied (See 40 CFR 122.35(a)):
   a. The other entity implements the control measure as specified in the SWMP;
   b. The particular control measure or component thereof undertaken by the other entity is at least as stringent as the corresponding permit requirements
   c. The other entity agrees to implement the control measure on the permittee's behalf. The SWMP shall specify that the permittee is relying on another entity to satisfy some of its permit obligations and specify what those obligations are;
   d. The permittee remains responsible for compliance with all permit obligations if the other entity fails to implement the control measures (or component thereof). The permittee may enter into a legally binding agreement with the other entity regarding the other entity's performance of control measures, but the permittee remains ultimately responsible for permit compliance.

6.1 Public Education and Outreach (40 CFR 122.34(b)(1))

The permittee shall identify and implement an educational program that focuses on the impacts of stormwater discharges to and from the MS4.

1. At a minimum, the permittee shall provide public education, outreach to at least one (1) target group, and focus its efforts on conveying relevant messages using one (1) or more appropriate topics listed below during each year of the permit term. Topics listed are not exclusive, and the permittee may focus its effort on one (1) or more target group(s) and topic(s) most relevant to the MS4.
   a. *Target Groups:*

      General Public, Residential Community, Homeowners, , Schools

b. *Topics:*

i. Post-construction ordinances and long-term maintenance requirements for permanent stormwater controls;

ii. Stormwater runoff issues and residential stormwater management practices;

iii. Potential water quality impacts of application of pesticides, herbicides and fertilizer and control measures to minimize runoff of pollutants in stormwater;

iv. 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;

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

vi. Spill prevention, proper handling and disposal of toxic and hazardous materials, and measures to contain and minimize discharges to the storm sewer system;

vii. Installation of catch basin markers or stenciling of storm sewer inlets to minimize illicit discharges and illegal dumping to storm sewer system;

viii. Proper management and disposal of used oil; or

ix. Community activities (monitoring programs, environmental protection organization activities, etc.).

2. At a minimum, the permittee shall provide business sector education/outreach to at least one (1) target group and focus its efforts on conveying relevant messages using one (1) or more appropriate topic(s) listed below during each year of the permit term. Topics listed are not exclusive, and the permittee may focus its efforts on one (1) or more target group(s) and topic(s) most relevant to the MS4.

1. *Target Groups:*

Development, Community/Home Owner Association, Construction Site Operators, Targeted Sources or Types of Businesses (industrial or commercial)

2. *Topics:*

i. Planning ordinances and grading and drainage design standards for stormwater management in new developments and significant redevelopments;

ii. Post-construction ordinances and long-term maintenance requirements for permanent stormwater controls;

iii. Municipal stormwater requirements and stormwater management practices for construction sites;

iv. Illicit discharges and proper management of non-stormwater discharges;

v. Spill prevention, proper handling of toxic and hazardous materials, and measures to contain and minimize discharges to the storm sewer system;

vi. Proper management and disposal of used oil and other hazardous or toxic materials, including practices to minimize exposure of materials/wastes to rainfall and minimize contamination of stormwater runoff;

vii. Stormwater management practices, pollution prevention plans, and facility maintenance procedures; or

viii. Water quality impacts associated with land development (including new construction and redevelopment).

3. The program shall focus on messages for specific audiences as well as show progress toward the defined educational goals of the program. The permittee shall identify methods that it will use to evaluate the effectiveness of the educational messages and the overall education program.
4. The permittee shall modify any ineffective messages or distribution techniques on an annual basis. See Part 8.1(3) for record keeping requirements.

6.2 Public Participation and Involvement (40 CFR 122.34(b)(2))

The permittee shall provide opportunities to engage the public to participate in the review and implementation of the permittee's SWMP.

1. All public involvement activities shall comply with state and local public notice requirements. The SWMP and all annual reports shall be available to the public. The current SWMP and annual report in subsequent years shall be posted no later than 30-days of the due date of the annual report. See 1.2(3) and (4).
2. The permittee shall annually provide the public an opportunity to participate in the review, revisions, updates, and implementation of the SWMP.
3. The permittee shall create opportunities for citizens to participate in the implementation of stormwater controls, for example, but not limited to:
   a. Stream clean-ups;
   b. Storm drain stenciling;

c. Volunteer monitoring;

d. Disposal of household hazardous waste;

e. Educational activities; and

f. Facilitation of Adopt-A-Wash, Adopt-A-Park, and Adopt-A-Street litter control activities.

4. The permittee shall provide and publicize a reporting system to facilitate and track public reporting of spills, discharges and/or dumping to the MS4 on a continuous basis.

5. The permittee shall document the details of the public involvement and participation program in the SWMP.

6.3 Illicit Discharge Detection and Elimination (IDDE) Program

(40 CFR 122.34(b)(3))

The permittee shall identify, develop, implement and enforce a program to detect and eliminate illicit discharges into the MS4. The IDDE program shall be recorded in a written document and maintained in the SWMP. The IDDE program shall include each of the elements listed in this section.

1. Storm Sewer Mapping

   The permittee shall prepare and maintain an up-to-date map of the MS4. At a minimum, the storm sewer map shall be sufficient in scope and detail to identify and isolate illicit discharges. The permittee is not required to submit storm sewer system mapping infrastructure to ADEQ unless specifically requested, and shall make mapping information available to ADEQ or EPA to assess permit compliance.

   The permittee shall develop a map that includes, at a minimum, the following:

   a. Storm sewer system including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains that are owned or operated by the permittee and convey stormwater to protected surface waters.

   b. The location of all outfalls; and

   c. The name and location of all protected surface waters that receive discharges from outfalls.

   Existing permittees shall review and update maps within one (1) year from the effective date of this permit, including areas annexed within the previous permit term.

   For existing permittees that have an increase of their "Urbanized Area" (UA) based on the 2020 Census, mapping shall be completed as following:

a. Within three (3) years from the effective date of the updated UAs from the Decennial Census;
b. At a minimum of 33% each year (permit years 1-3) and will be updated in the annual report; and
c. Supporting documentation should be maintained in the SWMP.

New permittees must include a mapping schedule in their NOI. The schedule must include how the permittee will conduct the mapping process, a timeline, and estimated completion dates.

2. Enforcement Procedures

a. The permittee shall prohibit non-stormwater discharges into the storm sewer system by implementing appropriate enforcement procedures and actions authorized by current ordinances, by-laws or other regulatory mechanisms. See Part 3.2 Enforcement Requirements for additional requirements on ordinances.

b. The written IDDE program shall include a reference or citation of the authority (ordinance or other regulatory mechanism) the permittee will use to implement all aspects of the IDDE program.

3. Statement of IDDE Program Responsibilities

The permittee shall establish a written statement that clearly identifies responsibilities with regard to eliminating illicit discharges. The statement shall identify the lead municipal agency or department responsible for implementing the IDDE Program as well as any other agencies or departments that may have responsibilities for aspects of the program. Where multiple departments and agencies have responsibilities to the IDDE program, specific areas of responsibility shall be defined and processes for coordination and data sharing shall be established and documented.

4. Illicit Discharge Detection and Elimination Reporting

The Permittee shall track and maintain records of the activities conducted to meet the requirements of Parts 6.1 – 6.6. The Permittee shall submit as part of each annual report a summary of IDDE activities in tabular format. The required fields are:

a. MS4 Name;

b. Date incident reported or discovered;

c. Date of the beginning of your response;

d. Date of the end of your response;

e. Did the discharge reach a protected surface water (yes, no, or unknown);

f. Incident location (address or latitude and longitude);

g. Pollutants;

h. Source; and

i. Correction method(s).

5. Eliminating Illicit Discharges

Illicit discharges to the MS4 are prohibited and constitute a violation of this permit, when the permittee is not fully implementing applicable permit requirements and the SWMP.

Upon detection of an illicit discharge, or receipt of a complaint regarding a discharge, the permittee shall eliminate the discharge as expeditiously as possible. The permittee shall identify and notify all responsible parties for any such discharge and require immediate cessation in accordance with its legal authorities. Where elimination of an illicit discharge is not immediately possible, the permittee shall establish an expeditious schedule for its elimination and report the dates of identification and schedules for removal in the permittee's annual reports. The permittee shall immediately commence actions necessary for elimination. In the interim, the permittee shall take all reasonable and prudent measures to minimize the discharge of pollutants to its MS4.

6. Non-Stormwater Discharges

The following categories of non-stormwater discharges or flows shall be addressed when such discharges are identified by the permittee as sources of pollutants to a protected surface water:

a. Water line flushing;

b. Landscape irrigation, including flood irrigation;

c. Diverted stream flows;

d. Rising ground waters;

e. Uncontaminated groundwater infiltration (as defined at 40 CFR 35.2005(b)(20)) to separate storm sewers;

f. Uncontaminated pumped groundwater;

g. Discharges from potable water sources;

h. Foundation drains;

i. Air conditioning condensation;

j. Irrigation water;

k. Springs;

l. Water from crawl space pumps;

m. Footing drains;

n. Lawn watering;

o. Individual residential car washing;

p. Flows from riparian habitats and wetlands;

q. Dechlorinated swimming pool discharges;

r. Street wash water;

s. Discharges or flows from emergency firefighting activities;

t. Discharges authorized by another NPDES or AZPDES permit.

7. Visual Monitoring

The permittee shall develop, implement, and maintain a visual monitoring program that includes both dry weather and wet weather stormwater discharges to identify, monitor, and eliminate illicit discharges; and to ensure compliance with effluent limitations in this permit. The ratio of dry weather and wet weather screenings conducted each year will be determined by the permittee.

a. The monitoring programs shall include written procedures for conducting visual monitoring of outfalls from the MS4. Monitoring procedures shall include, at a minimum, the following information/observations: outfall identification, personnel, time, date, weather conditions at time of inspection, estimated flowrate, apparent odor, color, clarity, debris, floatables, and other necessary information to characterize the screening.

b. The permittee shall visually monitor at least 20% of all outfalls each year including both dry and wet weather screenings. The ratio of dry weather and wet weather screenings conducted each year will be determined by the permittee. Re-inspection of outfalls may be included in the annual monitoring percentage. In the event an illicit discharge is discovered, the permittee shall implement measures to eliminate the illicit discharge (parts 6.3(1) - 6.3(6)); and

c. Follow-up Screening: The permittee shall establish a follow-up screening schedule for identified or suspected illicit discharges to ensure they do not recur.

d. In the event a Small MS4 has fewer than five (5) outfalls, a minimum of five (5) screening points, or combination of outfalls and screening points, shall be utilized for the visual monitoring requirement. Screening points shall be at locations where stormwater leaves the Small MS4's permitted area including locations where stormwater may discharge to another MS4 or other conveyance.

8. Indicators of IDDE Program Progress

   The permittee shall define or describe indicators for tracking program success. At a minimum, indicators shall include measures that demonstrate efforts to locate illicit discharges that were identified and removed. Such measures may include response time to inspection, an increase in public awareness, time from discovery to elimination, and other appropriate factors. The permittee shall evaluate the overall effectiveness of the program at least annually and incorporate improvements as necessary.

9. Staff Training

   The permittee shall, at a minimum, provide annual training to employees involved in the IDDE program (e.g., street workers, inspectors, solid waste personnel, etc.). The training shall include the IDDE program components and how to recognize illicit discharges.

10. AZPDES Non-Filers

    The permittee shall implement a program to identify illicit discharges to the MS4 identified in accordance with the IDDE program established in Section 6.3. The permittee shall report suspected non-filers to ADEQ within 30 days. The report provided to ADEQ shall include, at a minimum, the facility name and the location of the suspected non-filer. The reports shall be submitted to ADEQ at AZPDES@azdeq.gov. If more than one non-filer is identified within a 30-day period, the notifications may be combined into a single report.

6.4 Construction Activity Stormwater Runoff Control (40 CFR 122.34(b)(4))

The permittee shall develop, implement, maintain, and enforce a construction activity stormwater runoff control program to minimize or eliminate pollutant discharges to the MS4s from construction activities that will disturb one (1) or more acres of land, including sites less than one (1) acre that are part of a common plan of development or sale.

1. Construction Activity Stormwater Runoff Implementation

   The permittee shall assess existing legal authority, codes, and other relevant mechanisms and adopt, and implement measures to ensure compliance with construction activity runoff timeframe(s) specified in Part 3.1.

2. Construction Activity Stormwater Runoff Program Components

   The construction activity stormwater runoff control program shall include, at a minimum, the elements in paragraphs a. through h. of this part:

   a. An ordinance or other regulatory mechanism that requires the use of sediment and erosion control practices and allows the permittee, to the extent authorized by law, to impose sanctions ensuring compliance with the local program. See Part 3.2 Enforcement Requirements for additional requirements on ordinances.

b. 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.

c. Written procedures for site plan review shall include:

   1. A review of the site design;
   2. The planned operations at the location of the construction activity;
   3. Planned stormwater controls during each construction phase; and
   4. The planned controls to be used to manage runoff created after development. (see 6.5)

d. Written procedures for site inspections and enforcement of sediment and erosion control measures. The procedures shall clearly define who is responsible for site inspections as well as who has authority to implement enforcement procedures. The program shall allow the MS4, to the extent authorized by law, to impose sanctions ensuring compliance with the local program. These procedures and regulatory authorities shall be documented in the SWMP.

e. In developing procedures for site inspections and enforcement control measures, the permittee shall consider, at a minimum, the following:

   1. The phase of construction;
   2. Proximity to an impaired, not-attaining or OAW;
   3. Size of the construction activity (acreage disturbed); and
   4. History of non-compliance (site or operator).

f. Implement procedures for site inspections of public and private construction projects in accordance with the frequency specified below:

   1. Sites (1) one acre or larger that are within 1/4 mile of an impaired or not-attaining protected surface water, that is impaired for turbidity or Suspended Sediment Concentration (SSC), shall be inspected a minimum of once per week, and within 24 hours of the occurrence of each storm event of 0.5 inches or greater in a 24 hour period;
   2. Site inspection frequency for sites not subject to part f.1 (above) may follow section a or b below, or any combination thereof:
      a. Sites shall be inspected within one month of the start of construction. This inspection may count towards quarterly inspections.
         i. Sites shall be inspected quarterly; and
         ii. Sites shall be inspected upon completion of construction and prior to final approval or occupancy. This inspection may count towards quarterly inspections.

b. Sites meeting the below i - v requirements may reduce inspection frequency to every six months. The permittee must document which sites are inspected under this reduced frequency section:

   i. The nearest downstream receiving water is ephemeral;

   ii. The construction activity occurs on a site designed so that all stormwater generated by disturbed areas of the site exclusive of public rights-of-way is directed to one or more retention basins that are designed to retain the runoff from an extreme event. For the purposes of this subsection, "extreme event" means a rainfall event that meets or exceeds the local one hundred-year, two-hour storm event as calculated by an Arizona registered professional engineer using industry practices;

   iii. The owner or operator complies with erosion and sediment control measures;

   iv. The owner or operator maintains the capacity of the retention basins; and

   v. Construction conforms to the standards prescribed by this section.

Compliance during this permit term shall be determined by achieving at least 80% of scheduled inspections annually.

g. Based on construction activity inspection findings, the permittee shall take all necessary follow-up actions (i.e., re-inspection, enforcement) to ensure compliance in accordance with the permittee's enforcement response plan required under Part 3.3.

h. The permittee shall require construction operators to implement sediment and erosion control BMPs appropriate for the conditions at the construction site. Examples of appropriate sediment and erosion control measures for construction activities include local requirements to:

   1. Minimize the amount of disturbed area and protect natural resources;
   2. Stabilize sites when projects are complete or operations have temporarily ceased;
   3. Protect slopes on the site of the construction activity;
   4. Protect storm drain inlets and armor all newly-constructed outlets;
   5. Use perimeter controls at the site;
   6. Stabilize entrance(s) and exit(s) at the location of the construction activity to prevent off-site tracking; and
   7. Inspect stormwater controls at consistent intervals.

i. The permittee shall require construction operators to control wastes, including but not limited to: discarded building materials, paints, fertilizers, concrete washout, chemicals, litter, equipment leaks, and sanitary wastes.

3. Personnel Qualifications

   The permittee shall ensure staff who conduct activities related to implementing the construction stormwater program (permitting, plan review, construction activity inspections, enforcement, etc.) have the knowledge, skills, and abilities to proficiently carryout their assigned duties.

4. Construction Activity Operator Education and Public Involvement

   The permittee must develop and implement a program to provide education to construction activity operators on erosion and sediment control BMP requirements and establish procedures for receipt of, and consideration of, information submitted by the public.

6.5 Post-Construction Stormwater Management in New Development and Redevelopment (40 CFR 122.34(b)(5))

The permittee shall develop, implement, and enforce a program to address post-construction stormwater runoff from new development and redevelopment projects that disturb one (1) or more acres of land (or less than one (1) acre if part of a common plan of development) that discharge into the permittee's MS4.

1. The post-construction stormwater management program shall include a combination of structural and/or non-structural best management practices, as well as the components identified in this section.
2. An ordinance or regulatory mechanism shall be implemented to address runoff from new development and redevelopment projects. The regulatory mechanism shall specify that owners or operators of new development and redevelopment sites discharging to the MS4, design, install, and maintain post-construction stormwater controls that reduce or eliminate the discharge of pollutants from the site after construction activities are completed. See Part 3.2 Enforcement Requirements for additional requirements on ordinances.

   Permittees shall evaluate existing ordinance or other regulatory mechanism(s) to address post-construction stormwater runoff from new development and redevelopment projects. If it is determined existing ordinances or other regulatory mechanism(s) shall be modified, the permittee shall develop, adopt and implement a revised ordinance or other mechanism within the timeframes(s) specified in Part 3.1.

   The permittee's new development/redevelopment program shall have procedures to ensure any stormwater controls or management practices for new development and redevelopment will prevent or minimize impacts to water quality from stormwater runoff.

3. Site Plan Review

   The permittee shall design, implement, and maintain a site plan review process to evaluate and approve post-construction stormwater controls. See permit part 6.4(2)(c) for site plan review requirements.

4. Post-Construction Stormwater Control Inventory

   The permittee shall implement and maintain an inventory system of all post-construction structural stormwater control measures installed and implemented at new development and redeveloped sites, including both public and private sector sites located within the permit area that discharge into the MS4. The inventory must be searchable by property location (either on paper or electronic) and other relevant criteria (e.g., type: retention, detention, green stormwater infrastructure, permeable pavement, dry well, size: feet, acre, volume; and, purpose: sediment removal, metals treatment, oil and grease).

5. Operation and Maintenance of Post-Construction BMPs

   The permittee shall establish processes, procedures, and other such provisions necessary, such as routine inspections of post-construction BMPs to ensure the long-term operation and maintenance of post-construction stormwater BMPs.

6.6 Pollution Prevention and Good Housekeeping for Municipal Operations (40 CFR 122.34(b)(6))

The permittee shall develop, implement, and maintain an operations and maintenance program that includes a training component with the ultimate goal of preventing or reducing pollutant runoff and protecting water quality from municipal facilities and activities. The provisions in this part apply to facilities and activities that are not subject to separate AZPDES permitting.

1. At a minimum, the program shall include control measures for reducing or eliminating the discharge of pollutants from:
   a. streets, roads, highways;
   b. municipal parking lots;
   c. maintenance and storage yards;
   d. fleet or maintenance shops with outdoor storage areas;
   e. salt/sand storage locations and snow disposal areas operated by the permittee;
   f. waste transfer stations; and
   g. disposal of waste removed from the separate storm sewers and areas listed above (such as dredge spoil, accumulated sediments, floatables, and other debris).

2. Operation and Maintenance of Pollution Prevention and Good Housekeeping BMPs

   The permittee shall establish processes, procedures, and other such provisions necessary to ensure the long-term operation and maintenance of stormwater BMPs. At a minimum, the processes and procedures shall include:

   a. Development of an inventory of municipally-owned and operated facilities and activities that discharge;

   b. Prioritize municipal facilities based on their risk to discharge pollutants and develop and implement a site inspection schedule (example, more frequent inspections for higher risk facilities, less frequent inspections for lower risk facilities);

   c. Develop and implement an inspection schedule for municipally-owned or operated facilities and activities, based on priority, to ensure stormwater controls are effective and being properly maintained. Inspections shall be implemented with the following frequencies:

      i. High risk facilities shall be inspected at least once every quarter;

      ii. Medium risk facilities shall be inspected at least twice per year; and

      iii. Low risk facilities shall be inspected at least once per year.

   d. Based on inspection findings, update municipally-owned or operated facilities priority status and modify inspection frequency, as appropriate;

   e. Develop and implement stormwater controls at municipally-owned or operated facilities and discharge activities to reduce or eliminate the discharge of pollutants;

   f. Develop and implement an annual employee training program to incorporate pollution prevention and good housekeeping techniques into everyday operations and maintenance activities; and

   g. Develop maintenance activities, maintenance schedules, and long-term inspections procedures for structural and non-structural stormwater controls to reduce floatables, trash, and other pollutants discharged from the MS4.

   Existing permittees shall continue to implement established operation and maintenance programs while updating those programs, as necessary, to comply with the requirements of this permit.

7.0 MONITORING REQUIREMENTS

All MS4s are required to perform Stormwater Characterization Monitoring as set forth in this section. Additionally, MS4s that have stormwater discharges to impaired or not-attaining waters, OAWs, or waters with TMDLs shall monitor for the impairments, as outlined in this section.

Additionally, ADEQ may notify the MS4 in writing of any additional monitoring requirements to ensure protection of receiving water quality or to ensure permit compliance. Additional monitoring will be required if there is evidence that a pollutant is being discharged by the permittee that may be causing or contributing to exceedances of a water quality standard. Any such notice will provide an explanation of the reasons for the monitoring, locations, and parameters to be monitored, frequency and period of monitoring, sample types, and reporting requirements.

Analytical monitoring shall be conducted using approved test methods in accordance with A.A.C. R18-9-A905(B).

7.1 Monitoring and Assessment Program

1. The monitoring provisions of this section apply to all permittees that must conduct analytical monitoring. The permittee shall implement, and revise as necessary, a comprehensive monitoring and assessment program that includes a Sampling and Analysis Plan (see 7.3).

   A description of this program shall be included in the SWMP. The monitoring and assessment program shall be designed to meet the following objectives:

   a. Assess the impacts to impaired, not-attaining, or Outstanding Arizona Waters (OAWs) resulting from stormwater discharges from Small MS4 outfalls;

   b. Characterize stormwater discharges;

   c. Identify sources of elevated pollutant loads and specific pollutants; and

   d. Assess the overall health and evaluate long-term trends in water quality of impaired, not attaining, or OAWs.

2. The permittee shall identify outfall locations in the SWMP that:

   a. Discharge to impaired waters (Category 5);

   b. Discharge to not-attaining waters (Category 4);

   c. Discharges to OAWs listed in A.A.C. R18-11-112; and

   d. Are subject to additional monitoring required by ADEQ.

7.2 Stormwater Characterization Monitoring Requirements

1. Stormwater Sampling

   The permittee shall conduct stormwater characterization monitoring of discharges from the MS4 to protected surface waters at the outfalls identified by the permittee in Part 7.2(4). The permittee shall sample stormwater discharges from the MS4, as required in Appendix B, one (1) time within the first three and one-half (3.5) years of the effective date of the permit; new permittees shall sample stormwater discharges from the MS4 within the first three and one-half (3.5) years after obtaining permit coverage. This monitoring requirement shall provide discharge characterization data of stormwater discharges from the MS4.

2. Qualifying Storm Event

   The permittee shall conduct the required stormwater characterization monitoring for qualifying storm events. 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. The permittee shall design stormwater sampling procedures to include the "first flush" (first 30 minutes of storm event discharge) of a qualifying storm event, to the maximum extent practicable.

3. Storm Event Records

   The sampled qualifying storm event is 0.1 inches or more of rainfall and resulting in a discharge at the outfall. The permittee shall include the sampled qualifying storm event data in the DMR, including the following information:

   a. Date of the qualifying storm event; and

   b. Amount of rainfall (in inches) in the drainage area for each stormwater monitoring location identified in 7.2(4).

4. Monitoring Locations

   The permittee shall identify at least three (3) outfalls or locations within the MS4, representative of stormwater pollution from the MS4 for stormwater characterization monitoring. The identified outfalls for this one-time characterization monitoring must be reported in a discharge monitoring report (DMR), including the identification of the land use for the area served by the outfall from the following three uses: residential, commercial, industrial. The permittee's selected outfalls must be representative MS4 discharges and discharge to a protected surface water.

5. Adverse Climatic Conditions

   Sampling of a qualifying storm event is not required during adverse climatic conditions. Adverse climatic conditions which prohibit the collection of samples include weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, electrical storms, etc.). Information on the conditions that prevented sampling shall be reported to ADEQ with the DMRs. Where additional stormwater sampling is required, the

permittee shall continue to monitor subsequent storm events during the monitoring season and perform storm water sampling of a qualifying storm event if another occurs during the same wet season.

6. Stormwater Characterization DMR

All parameters listed in Appendix B shall be monitored. Any additional parameters may be monitored as determined by the permittee. All parameters monitored must be reported to ADEQ via the DMR provided in myDEQ.

ADEQ will provide an electronic DMR in myDEQ for each permittee to record their stormwater characterization monitoring.

a. This DMR shall be submitted within 30 days after receiving laboratory results from characterization monitoring.

b. For existing permittees, this DMR will be available from October 1, 2021 through March 30, 2024, allowing the entry of data and/or no discharge codes throughout the first three and one-half (3.5) years of permit coverage.

c. For new permittees, a DMR will be made available for the first three and one-half (3.5) years after obtaining permit coverage.

The permittee shall retain records of all stormwater monitoring information with the SWMP.

7.3 Sampling and Analysis Plan (SAP)

The permittee shall develop a written SAP for analytical monitoring of stormwater discharges, including but not limited to:

1. The name(s) and title of the person(s) who will perform the monitoring;
2. Locations of monitoring sites;
3. A map showing the segments or portions of the protected surface water that are most likely to be impacted by the discharge of pollutant(s);
4. Water quality parameters and pollutants to be sampled;
5. The citation and description of the sampling protocols to be used; and
6. Identification of the analytical methods and related method detection limits (if applicable) for each parameter required. The permittee shall use analytical methods with a Limit of Quantitation (LOQ) that is lower than the effluent limitations, Assessments Levels, Action Levels, or other water quality criteria, if any, specified in this permit. If all methods have LOQs higher than the applicable water quality criteria, the permittee shall use the approved analytical method with the lowest LOQ.

7.4 Discharges to Impaired or Not-Attaining Waters or Outstanding Arizona Waters

1. Discharges to impaired or not-attaining waters:

   a. If an outfall discharges to an impaired or not-attaining water, the permittee shall develop and implement a monitoring program for all pollutants for which the waterbody is listed.

   b. If the waterbody is listed for suspended solids, turbidity or sediment/sedimentation and the discharge occurs for more than 72 hours after the storm event, the permittee shall monitor for suspended sediment concentration (SSC). If the pollutant causing the impairment is expressed in the form of an indicator or surrogate pollutant, the permittee shall monitor for that indicator or surrogate pollutant.

   c. The permittee shall comply with all applicable waste load allocations established in approved TMDLs. In the event monitoring requirements (frequency, analytical parameters, etc.) are established in an approved TMDL, the permittee shall comply with the specifications in the approved TMDL.

2. Discharges to OAWs:

   a. The permittee shall perform analytical monitoring for the following parameters, if the MS4 has discharges to an OAW:

      1. Biochemical oxygen demand (BOD)
      2. Total suspended solids (nonfilterable) (TSS)
      3. pH
      4. Fecal coliform
      5. Oil and grease

   b. The permittee shall also sample for any pollutants for which the OAW is impaired or not-attaining.

   Note - this condition does not apply for discharges to OAWs that are non-WOTUS protected surface waters.

3. Discharges to a Lake:

   If the protected surface water is a lake that is impaired or not-attaining, a site-specific proposal for sampling the impact area shall be implemented and kept as part of the SWMP.

7.5 Monitoring Frequency and Deadlines

All MS4s that have discharges to impaired or not-attaining waters or OAWs shall perform analytical monitoring as per the frequencies and deadlines stated in this permit part.

1. The operator shall conduct analytical monitoring a minimum of one (1) time per wet season throughout the duration of permit coverage. Analytical monitoring is only required when stormwater or snowmelt discharges from an outfall in sufficient quantity to allow for sample collection and analysis.

   For the purposes of analytical monitoring, wet seasons are defined as follows:

   Summer wet season: June 1 – October 31
   Winter wet season: November 1 – May 31

2. The operator shall conduct analytical monitoring at outfalls observed or suspected to discharge the greatest amount of pollutants using Table 7 below:

Table 7 Minimum Number of Samples to Collect	
Number of Outfalls	Number of Samples
1 to 4	All
5 to 20	5
over 20	10

3. Calibration and Maintenance of Equipment and Monitoring Methods:

   a. All monitoring instruments and equipment (including operators' own field instruments for measuring pH and turbidity) shall be calibrated and maintained in accordance with manufacturers' recommendations. All laboratory analyses shall be conducted according to test procedures specified in 40 CFR Part 136. The permittee shall use analytical methods with a Limit of Quantitation (LOQ) that is lower than the effluent limitations, Assessments Levels, Action Levels, or other water quality criteria, if any, specified in this permit. If all methods have LOQs higher than the applicable water quality criteria, the Permittee shall use the approved analytical method with the lowest LOQ.

   b. All samples collected for analytical monitoring shall be analyzed by a laboratory that is licensed by the Arizona Department of Health Services (ADHS) Office of Laboratory Licensure and Certification. This requirement does not apply to parameters that require analysis at the time of sample collection as long as the testing methods used are approved by ADHS or ADEQ. These parameters may include flow, dissolved oxygen, pH, temperature, and total residual chlorine.

c. The permittee may conduct field analysis of turbidity if the permittee has sufficient capability (qualified and trained employees, properly calibrated and maintained field instruments, etc.) to properly perform the field analysis.

d. The permittee may conduct field analysis of E. coli if the permittee has sufficient capability (qualified and trained employees, properly calibrated and maintained field instruments, etc.) to properly perform the field analysis using Colilert or an equivalent.

7.6 Analytical Monitoring DMR

All permittees subject to analytical monitoring shall submit the results on the electronic Discharge Monitoring Report (DMR) in myDEQ. The permittee shall retain records of all stormwater monitoring information with the SWMP.

The DMR shall be submitted within 30 days after receiving laboratory results. In the event no samples are collected during a wet season, the DMR indicating "no data" using the appropriate No Discharge Information (NODI) code(s) shall be submitted no later than:

- June 30 (for winter sampling)
- November 30 (for summer sampling)

8.0 PROGRAM ASSESSMENT, RECORDKEEPING, AND REPORTING

8.1 Program Evaluation

1. The permittee shall annually self-evaluate its compliance with the terms and conditions of this permit. The permittee shall maintain the annual evaluation documentation as part of the SWMP.
2. The permittee shall evaluate the appropriateness of the selected BMPs in achieving the objectives of each control measure and the defined measurable goals. The permittee may change BMPs in accordance with the following provisions:
    a. Adding (but not subtracting) components or controls may be made at any time;
    b. Changes replacing an ineffective or infeasible BMP specifically identified in the SWMP with an alternative BMP may be made if the proposed changes meet the criteria of this Part, 8.1.
3. BMP modification documentation shall include the following information and all documentation shall be kept in the SWMP:
    a. An analysis of why the BMP is ineffective or infeasible;
    b. Expectations on the effectiveness of the replacement BMP; and
    c. An analysis of why the replacement BMP is expected to achieve the defined goals of the BMP to be replaced.
4. ADEQ may require the permittee to add, modify, repair, replace or change BMPs or other measures described in SWMP to address the following:
    a. Impacts to receiving water quality caused or contributed to by discharges from the MS4;
    b. To satisfy conditions of this permit;
    c. To include more stringent requirements necessary to comply with new state or federal legal requirements; or
    d. Attainment of SWQS.
5. Any changes requested by ADEQ will be in writing and will require the permittee to develop a schedule to implement the changes and will offer the permittee the opportunity to propose alternative program changes to meet the objective of the requested modification.

8.2 Recordkeeping

1. The permittee shall keep all records required by this permit for a period of three (3) years from the date the record is created. Records include

information used in the development of any written program required by this permit, any monitoring results, copies of reports, records of screening, follow-up and elimination of illicit discharges; maintenance records; inspection records; enforcement actions; and data used in the development of the NOI, SWMP, plans, and annual reports. This list provides examples of records that should be maintained, but is not all inclusive.

2. Records other than those required to be included in the discharge monitoring report (Part 8.3) and annual report (Part 8.4) shall be submitted upon request by ADEQ or U.S. EPA. Requirements for discharges to non-WOTUS protected surface waters are state-only and records need only be submitted to ADEQ.

3. The permittee shall make the records relating to this permit, including the written stormwater management program, available to the public. The public may view the records during normal business hours. The permittee may charge a reasonable fee for copying requests. The permittee is encouraged to satisfy this requirement by posting records online.

8.3 Annual Report

The permittee shall submit an annual report each year of the permit term to ADEQ. The reporting period is from July 1 through June 30 each year. The annual report is due to ADEQ on or before September 30 each year for the reporting period. Please see Appendix A for the annual report requirements.

9.0 STANDARD PERMIT CONDITIONS

Standard permit conditions in Part 9 are consistent with the general permit provisions required under 40 CFR 122.41 and A.A.C. R-18-9-A905(A)(3).

1. **Duty to Comply:** [A.A.C. R18-9-A905(A)(3)(a), which incorporates 40 CFR122.41(a)(1) and A.R.S. §§ 49-261, 262, 263.01, and 263.02.]

   a. The operator shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act, A.R.S. Title 49, Chapter 2, Article 3.1, and A.A.C. Title 18, Chapter 9, Article 9, and is grounds for enforcement action, permit termination, revocation and reissuance, or modification, or denial of a permit renewal application.

   b. The issuance of this permit does not waive any federal, state, county, or local regulations or permit requirements with which a person discharging under this permit is required to comply.

   c. The operator shall comply with any effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

2. **Duty to Reapply / Continuation of the Expired General Permit:** [A.A.C. R18-9-A905, which incorporates 40 CFR 122.41(b) and A.A.C. R18-9-C903]

   a. Upon reissuance of the general permit, the permittee shall file an NOI, within the timeframe specified in the new general permit, and shall obtain new written authorization to discharge from the Director.

   b. If the Director does not reissue the general permit before the expiration date, the current general permit will be administratively continued and remain in force and effect until the general permit is reissued.

   c. Any operator granted authorization to discharge under the general permit before the expiration date automatically remains covered by the continued general permit until the earlier of:

      i. Reissuance or replacement of the general permit, at which time the operator shall comply with the NOI conditions of the new general permit to maintain authorization to discharge; or

      ii. The date the operator has submitted a NOT; or

      iii. The date the Director has issued an individual permit for the discharge; or

      iv. The date the Director has issued a formal permit decision not to reissue the general permit, at which time the operator shall seek coverage under an alternative general permit or an individual permit, or cease discharge.

3. **Need to Halt or Reduce Activity Not a Defense:** [A.A.C. R18-9-A905(A)(3)(a), which incorporates 40 CFR 122.41(c)]

   It shall not be a defense for an operator in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

4. **Duty to Mitigate:** [A.A.C. R18-9-A905(A)(3)(a), which incorporates 40 CFR 122.41(d)]

   The operator shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment per A.R.S. § 49-255.01(E)(1)(d).

5. **Proper Operation and Maintenance:** [A.A.C. R18-9-A905(A)(3)(a), which incorporates 40 CFR 122.41(e)]

   The operator shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the operator to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures.

6. **Permit Actions:** [A.A.C. R18-9-A905(A)(3)(a), which incorporates 40 CFR 122.41(f)]

   This permit may be modified, revoked and reissued, or terminated for cause. Filing a request by the operator for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

7. **Property Rights:** [A.A.C. R18-9-A905(A)(3)(a), which incorporates 40 CFR 122.41(g)]

   This permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, nor any infringement of federal, state, Indian tribe, or local laws or regulations.

8. **Duty to Provide Information:** [A.A.C. R18-9-A905(A)(3)(a), which incorporates 40 CFR 122.41(h)]

   The operator shall furnish to ADEQ, within a reasonable time, any information, which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The operator shall also furnish to ADEQ upon request, copies of records required to be kept by this permit.

9. **Signatory Requirements:** [A.A.C. R18-9-A905(A)(3)(a), which incorporates 40 CFR 122.41(k) and (l); A.A.C. R18-9-A905(A)(1)(c), which incorporates 40 CFR 122.22]

a. All Notices of Intent (NOI) and Notices of Termination (NOT) shall be signed as follows:

   i. For a corporation*:* By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

   ii. For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or

   iii. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal (or state) agency includes: (1) The chief executive officer (or director) of the agency, or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

b. All NOTs, reports, plans, inspection reports, monitoring reports, and other information required by this permit shall be signed by a person described in Part 9.9(a), above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   i. The authorization is made in writing by a person described in Subsection 9(a) above;

   ii. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of manager, operator, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may be either a named individual or any individual occupying a named position); and

   iii. The signed and dated written authorization is included in the SWMP. A copy shall be submitted to ADEQ, upon request.

c. Certification. Any person signing documents under the terms of this permit shall make the following certification:

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

10. Inspection and Entry: [A.A.C. R18-9-A905(A)(3)(a), which incorporates 40 CFR 122.41(i)]

The operator shall allow the Director or an authorized representative upon the presentation of credentials and such other documents as may be required by law to:

a. Enter upon the operator's premises where a regulated facility or activity is located or conducted or where records shall be kept under the conditions of this permit;

b. Have access to and copy at reasonable times, any records that shall be kept under the conditions of this general permit;

c. Inspect at reasonable times any facility or equipment (including monitoring and control equipment), practices or operations regulated or required under this permit;

d. Sample or monitor at reasonable times any substances or parameters at any location, for the purposes of assuring permit compliance or as otherwise authorized by A.R.S. Title 49, Chapter 2, Article 3.1, and 18 A.A.C. 9, Articles 9.

11. Monitoring and Records: [A.A.C. R18-9-A905(A)(3)(a), which incorporates 40 CFR 122.41(j)]

a. Representative Samples/Measurements: Samples and measurements taken for the purpose of monitoring shall be representative of the volume and nature of the monitored activity.

b. Retention of Records: The operator shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date permit coverage ends. Operators shall submit any such records to the Director upon request. The operator shall retain the SWMP developed in accordance with Part 4 of this permit, for at least three (3) years after the last modification or amendment is made to the plan. The Director may

extend this retention period upon request by notifying the operator in writing at any time prior to the end of the standard three year retention period.

c. Records Contents: Records of monitoring information shall include:

i. The date, exact location, and time of sampling or measurements;
ii. The initials or name(s) of the individual(s) who performed the sampling or measurements;
iii. The date(s) analyses were performed;
iv. The time(s) analyses were initiated;
v. The initials or name(s) of the individual(s) who performed the analyses;
vi. References and written procedures, when available, for the analytical techniques or methods used;
vii. The analytical techniques or methods used; and
viii. The results of such analyses.

d. Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained in this permit is subject to the enforcement actions established under A.R.S. Title 49, Chapter 2, Article 4, which includes the possibility of fines and/or imprisonment.

12. Reporting Requirements: [A.A.C. R18-9-A905(A)(3)(a), which incorporates 40 CFR 122.41(l)]

a. Planned changes: The operator shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b) (incorporated by reference at A.A.C. R18-9-A905(A)(1)(e)); or

ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1) (incorporated by reference at A.A.C. R18-9-A905(A)(3)(b)).

b. Monitoring reports: Monitoring results shall be reported at the intervals specified elsewhere in this permit.

i. Monitoring results shall be reported on a Discharge Monitoring Report (DMR) or forms (paper or electronic) provided or specified by ADEQ.

ii. If the operator monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

iii. Calculations for all limitations which require averaging of measurements shall use an arithmetic mean and non-detected results shall be incorporated in calculations as the limit of quantitation for the analysis.

c. Anticipated noncompliance:

The operator shall give advance notice to the Director of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

d. Twenty-four hour reporting:

For *emergency noncompliance* which may endanger the environment or human health and reach a protected surface water, the permittee shall orally report the information to the ADEQ Spill Line at 602-771-2330, within 24 hours from the time the permittee becomes aware of the event.

For *non-emergency noncompliance*, the permittee shall provide a written notification to ADEQ at stormwatercompliance@azdeq.gov within five (5) calendar days of the noncompliance event. The permittee shall include in the written notification a description of the noncompliance and its cause; the period of noncompliance, including dates and times, and, if the noncompliance has not been corrected, the anticipated timeline it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

e. Other information: When the permittee becomes aware that it failed to submit any relevant facts or submitted incorrect information in a NOI or in any other report to ADEQ, the permittee shall promptly submit the facts or information to stormwatercompliance@azdeq.gov.

13. Reopener Clause: [A.A.C. R18-9-A905(A)(3)(d), which incorporates 40 CFR 122.44(c)]

The Department may elect to modify the permit prior to its expiration (rather than waiting for the new permit cycle) to comply with any new statutory or regulatory requirements, such as for effluent limitation guidelines, which may be promulgated in the course of the current permit cycle.

14. Other Environmental Laws:

No condition of this general permit releases the operator from any responsibility or requirements under other environmental statutes or regulations. For example, this permit does not authorize the "taking" of endangered or threatened species as prohibited by Section 9 of the Endangered Species Act, 16 U.S.C. 1538. Information regarding the location of endangered and threatened species and guidance on what activities constitute a "taking" are available from the U.S. Fish and Wildlife Service. The operator shall also comply with applicable State and Federal laws, including Spill Prevention Control and Countermeasures (SPCC), where applicable.

15. State or Tribal Law: [Pursuant to A.A.C. R18-9-A904(C)]

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the operator from any responsibilities, liabilities, or penalties established pursuant to any applicable State or Tribal law or regulation under authority preserved by Section 510 of the Clean Water Act.

16. Severability:

The provisions of this general permit are severable, and if any provision of this general permit, or the application of any provision of this general permit to any circumstance, is held invalid, the application of the provision to other circumstances, and the remainder of this general permit shall not be affected.

17. Requiring Coverage under an Individual Permit or an Alternative General Permit: [Pursuant to A.A.C. R18-9-C902 and R18-9-A909]

a. The Director may require a person authorized by this permit to apply for and/or obtain either an individual AZPDES permit or an alternative AZPDES general permit. Any interested person may petition the Department to take action under this section. The Department may require an operator authorized to discharge under this permit to apply for an individual permit in any of the following cases:

i. A change occurs in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source;

ii. Effluent limitation guidelines are promulgated for point sources covered by the general permit;

iii. An Arizona Water Quality Management Plan containing requirements applicable to the point sources is approved;

iv. Circumstances change after the time of the request to be covered so that the discharger is no longer appropriately controlled under the general permit, or either a temporary or permanent reduction or elimination of the authorized discharge is necessary;

v. If the Director determines that the discharge is a significant contributor of pollutants. When making this determination, the Director shall consider:

1. The location of the discharge with respect to protected surface waters;

2. The size of the discharge;

3. The quantity and nature of the pollutants discharged to protected surface waters; and

4. Any other relevant factors.

b. If an individual permit is required, the Director shall notify the discharger in writing of the decision. The notice shall include:

i. A brief statement of the reasons for the decision;

ii. An application form;

iii. A statement setting a deadline to file the application;

iv. A statement that on the effective date of issuance or denial of the individual permit, coverage under the general permit will automatically terminate;

v. The applicant's right to appeal the individual permit requirement with the Water Quality Appeals Board under A.R.S. § 49-323, the number of days the applicant has to file a protest challenging the individual permit requirement, and the name and telephone number of the Department contact person who can answer questions regarding the appeals process; and

vi. The applicant's right to request an informal settlement conference under A.R.S. 41-1092.03(A) and 41-1092.06.

c. The discharger shall apply for an individual permit within 90 days of receipt of the notice, unless the Director grants a later date. In no case shall the deadline be more than 180 days after the date of the notice.

d. If the discharger fails to submit the individual permit application within the time period established in Part 9.17(c) the applicability of the general permit to the discharger is automatically terminated at the end of the day specified by the Director for application submittal.

e. Coverage under the general permit shall continue until an individual permit is issued or denied unless the general permit coverage is terminated under Part 9.17(d).

18. Request for an Individual Permit: [Pursuant to A.A.C. R18-9-C902]

a. An operator may request an exclusion from coverage of a general permit by applying for an individual permit.

i. The operator shall submit an individual permit application under R18-9-B901(B) and include the reasons supporting the request no later than 90 days after publication of the general permit.

ii. The Director shall grant the request if the reasons cited by the operator are adequate to support the request.

b. If an individual permit is issued to a person otherwise subject to a general permit, the applicability of the general permit to the discharge is automatically terminated on the effective date of the individual permit.

19. Change of Operator: [A.A.C. R18-9-C904]

If a change of ownership or operator occurs for a facility operating under a general permit:

a. Permitted owner or operator: The operator shall provide the Department with a NOT by certified mail within 30 days after the new owner or operator assumes responsibility for the facility.

i. The NOT shall include all requirements for termination specified in the general permit for which the NOT is submitted.

ii. An operator shall comply with the permit conditions specified in the general permit for which the NOT is submitted until the NOT is received by the Department.

b. New owner or operator:

i. The new owner or operator shall complete and file a NOI with the Department within the time period specified in the general permit before taking over operational control of, or initiation of activities at, the facility.

ii. If the previous operator was required to implement a stormwater pollution prevention plan, the new owner shall develop a new stormwater pollution prevention plan, or may modify, certify, and implement the old stormwater pollution prevention plan if the old stormwater pollution prevention plan complies with the requirements of the current general permit.

iii. The operator shall provide the Department with a NOT if a permitted facility ceases operation, ceases to discharge, or changes operator status. In the case of a construction activity, the operator shall submit a NOT to the Department when:

1. The facility ceases construction operations and the discharge is no longer associated with construction or construction-related activities,
2. The construction is complete and final site stabilization is achieved, or
3. The operator's status changes.

20. Bypass: [A.A.C. R18-9-A905(A)(3)(a), which incorporates 40 CFR 122.41(m)]

a. Definitions:

i. Bypass means the intentional diversion of waste streams from any portion of a treatment facility;

ii. Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypass not exceeding limitations: The operator may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions Part 9.20(c) and 20(d).

c. Notice:

i. Anticipated bypass. If the operator knows in advance of the need for a bypass, if possible prior notice shall be submitted at least ten days before the date of the bypass.

ii. Unanticipated bypass. The operator shall submit notice of an unanticipated bypass as required in Part 9.12(d).

d. Prohibition of bypass:

i. Bypass is prohibited, and ADEQ may take enforcement action against the operator for bypass, unless:

1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

3. The operator submitted notices as required under Part 9.20(c).

ii. ADEQ may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in this Part 9.20(d).

21. Upset: [A.R.S. §§ 49-255(8) and 255.01(E), A.A.C. R18-9-A905(A)(3)(a), which incorporates 40 CFR 122.41(n)]

a. Definition: Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the operator. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Effect of an upset: An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Part 9.21(c) are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset: An operator who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

i. An upset occurred and that the operator can identify the cause(s) of the upset;

ii. The permitted facility was at the time being properly operated;

iii. The operator submitted notice of the upset as required in Part 9.12(d)(iii); and

iv. The operator complied with any remedial measures required under Part 9.4.

d. Burden of proof: in any enforcement proceeding, the operator, who is seeking to establish the occurrence of an upset, has the burden of proof.

22. Penalties for Violations of Permit Conditions

Any permit noncompliance constitutes a violation and is grounds for an enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application.

a. Civil Penalties: A.R.S. § 49-262 provides that any person who violates any provision of A.R.S. Title 49, Chapter 2, Article 2, 3 or 3.1 or a rule, permit, discharge limitation or order issued or adopted under A.R.S. Title 49, Chapter 2, Article 3.1 is subject to a civil penalty not to exceed $25,000 per day per violation.

b. Criminal Penalties: Any person who violates a condition of this general permit, or violates a provision under A.R.S. Title 49, Chapter 2, Article 3.1, or A.A.C. Title 18, Chapter 2, Article 9 is subject to the enforcement actions established under A.R.S. Title 49, Chapter 2, Article 4, which may include the possibility of fines and/or imprisonment.

10.0 DEFINITIONS

Analytical monitoring – monitoring conducted to provide quantitative results in accordance with A.A.C. R18-9-A905(B).

Best management practices (BMPs) **–** schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "surface waters" BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. Also called Controls or Control Measures.

Common plan of development – a contiguous area where multiple separate and distinct land disturbing activities may be taking place at different times, on different schedules, but under one plan. A 'plan' is broadly defined to include design, permit application, advertisement or physical demarcation indicating that land-disturbing activities may occur.

Construction activity – earth-disturbing activities such as, clearing, grading, excavating, stockpiling of fill material and other similar activities. This definition encompasses both large construction activities defined in 40 CFR 122.26 (b)(14)(x) and small construction activities in 40 CFR 122.26 (b)(15)(i) and includes construction support activities.

Controls or **Control Measures** or **Measures -** See Best Management Practices.

CWA or **The Act** - Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92-500, as amended Pub. L. 95 217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et seq.

Department – the Arizona Department of Environmental Quality.

Director – the Director of ADEQ

Discharge –means the "discharge of a pollutant."

Discharge of a pollutant – means:

a. Any addition of any "pollutant" or combination of pollutants to protected surface waters from any "point source," or

b. Any addition of any pollutant or combination of pollutants to the protected surface waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft, which is being used as a means of transportation.

This definition includes additions of pollutants into protected surface waters from:

a. Surface runoff which is collected or channeled by man;

b. Discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and

c. Discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works.

This term does not include an addition of pollutants by any "indirect discharger."

Discharge point – the location where stormwater flows exit the MS4 or other regulated activities, such as construction sites and industrial sites.

Effluent limitations – any limitation or condition on quantities, discharge rates, or concentration of pollutants, which are discharged from a point source.

Effluent Limitations Guideline (ELG) – defined in 40 CFR § 122.2 as a regulation published by the Administrator under section 304(b) of CWA to adopt or revise effluent limitations.

Existing permittees - Small MS4 operators who had coverage under ADEQ's 2016 Small MS4 General Permit.

Facility - any "point source" or any other facility (including land or appurtenances thereto) that is subject to regulation under the AZPDES/NPDES program.

Field Screening Point - location(s) where municipal stormwater leaves a Small MS4 operator's permitted area and goes to a protected surface water by way of a discrete and channelized conveyance (such as another municipal storm sewer system).

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

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

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.

Maximum Extent Practicable (MEP) – the technology-based discharge standard for municipal separate storm sewer systems to reduce pollutants in storm water discharges. A discussion of MEP as it applies to small MS4s is found at 40 CFR 122.34. CWA section 402(p)(3)(B)(iii) requires that a municipal permit "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system design, and engineering methods, and other provisions such as the Administrator or the State determines appropriate for the control of such pollutants.

Measurable goal - a quantitative measure of progress in implementing a component of a storm water management program.

Minimize – to reduce and/or eliminate to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal separate storm sewer – a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

a. Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the Clean Water Act (33 U.S.C. 1288) that discharges to protected surface waters;

b. Designed or used for collecting or conveying stormwater;

c. Which is not a combined sewer; and

d. Which is not part of a Publicly Owned Treatment Works.

Municipal separate storm sewer system (MS4) – all separate storm sewers defined as "large," "medium," or "small" municipal separate storm sewer systems or any municipal separate storm sewers on a system-wide or jurisdiction-wide basis as determined by the Director under A.A.C. R18-9-C902(A)(1)(g)(i) through (iv). [A.A.C. R18-9-A901(23)]. This also includes similar systems owned or operated by separate storm sewer municipal jurisdictions not required to obtain stormwater discharge authorization.

New permittees - Small MS4 operators who did not have permit coverage under ADEQ's 2016 Small MS4 General Permit.

Not-Attaining Water - a protected surface water is assessed as impaired, but is not placed on the 303(d) List or equivalent for non-WOTUS protected state waters because:

a. A TMDL is prepared and implemented for the surface water;

b. An action, which meets the requirements of R18-11-604(D)(2)(h), is occurring and is expected to bring the surface water to attaining before the next 303(d) List submission; or

c. The impairment of the surface water is due to pollution but not a pollutant, for which a TMDL load allocation cannot be developed.

Non-traditional MS4 - systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings. 40 CFR 122.26(a)(16)(iii).

Notice of Intent (NOI) – the application to operate under this general permit.

Notice of Termination (NOT) – the application to terminate coverage under this general permit.

Outfall – a *point source* as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to protected surface waters. An outfall does not include open conveyances connecting two (2) municipal separate storm sewers, or pipes, tunnels or other conveyances, which connect segments of the same stream or other protected surface waters and are used to convey protected surface waters.

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

Owner or operator - the owner or operator of any "facility or activity" subject to regulation under the NPDES program.

Permittee – refers to any person (defined below) authorized by this NPDES permit to discharge to protected surface waters.

Person – an individual, employee, officer, managing body, trust, firm, joint stock company, consortium, public or private corporation, including a government corporation, partnership, association or state, a political subdivision of this state, a commission, the U.S. government or any federal facility, interstate body, or other entity.

Point source – any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.

Pollutant – sediment, fluids, contaminants, toxic wastes, toxic pollutants, dredged spoil, solid waste, substances and chemicals, pesticides, herbicides, fertilizers and other agricultural chemicals, incinerator residue, sewage, garbage, sewage sludge, munitions, petroleum products, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt (e.g., overburden material), and mining, industrial, municipal and agricultural wastes or any other liquid, solid, gaseous or hazardous substances. [A.R.S. § 49-201(29)]

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

Receiving water - as used in this permit means a Protected Surface Water that receives discharges from the MS4.

Stormwater – stormwater runoff, snow melt runoff, and surface runoff and drainage. See 40 CFR 122.26(b)(13) as incorporated by AAC R18-9-A905.

Stormwater discharge associated with construction activity – a discharge of pollutants in stormwater runoff from areas where soil disturbing activities (e.g., clearing, grading, or excavating), construction materials, or equipment storage or

maintenance (e.g., fill piles, borrow areas, concrete truck washout, fueling), or other industrial stormwater directly related to the construction process (e.g., concrete or asphalt batch plants) are located. See 40 CFR 122.26(b)(14)(x) and 40 CFR 122.26(b)(15).

Stormwater discharge associated with industrial activity - a discharge from any conveyance which is used for collecting and conveying stormwater and which is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant (See 40 CFR §122.26(b)(14) for specifics of this definition).

Stormwater Management Program (SWMP) - a comprehensive program to manage the quality of stormwater discharged from the municipal separate storm sewer system. For the purposes of this permit, the Stormwater Management Program is considered a single document, but may actually consist of separate programs (e.g. "chapters") for each permittee.

Stormwater Pollution Prevention Plan (SWPPP) – 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).

Surface Water Quality Standards - means a standard adopted for a protected surface water pursuant to Section 49-221 and, in the case of WOTUS, pursuant to Section 49-222.

Total Maximum Daily Load (TMDL) – 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. Total Maximum Daily Loads for Waters of the U.S. shall meet the requirements of section 303(d) of the Clean Water Act (33 USC 1313(d) and regulations implementing that statute to achieve applicable surface water quality standards."

Turbidity – a condition of water quality characterized by the presence of suspended solids and/or organic material; expressed as Nephelometric turbidity units (NTU).

Waste load allocation (WLA) – The maximum load of pollutants each discharger of waste is allowed to release into a particular waterway. Discharge limits are usually required for each specific water quality criterion being, or expected to be, violated. WLAs constitute a type of water quality-based effluent limitation. (See 40 C.F.R. § 130.2(h))

Waters of the U.S. means waters of the State that are also navigable waters as defined by Section 502(7) of the Clean Water Act.

Wetland – an area that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil

conditions. A wetland includes a swamp, marsh, bog, Cienega, tinaja, and similar areas. [A.A.C. R18-11-101(49)]

Appendix A: Annual Report Requirements

4.0 Stormwater Management Program:

1. Did the permittee assess and evaluate the SWMP as part of preparing the annual report, per Permit Section 4.0?

6.0 Minimum Control Measures:

2. Did the permittee have another entity implement control measures on behalf of the MS4 per Permit Section 6.0(2)? If yes, identify the entity and give a brief explanation of their involvement.

6.1 MCM1 Public Education and Outreach:

3. Did the permittee provide outreach and education to the public on the stormwater program issues and requirements, per Permit Section 6.1(1)?
    a. Identify the target group and topic used for outreach and education.
    b. Identify the message used for each target group and topic.
    c. Identify how the message was conveyed to each target group.
    d. Identify measures/methods used to assess the effectiveness of the message used for each target group.
4. Did the permittee provide outreach and education to the public on the stormwater program issues and requirements, per Permit Section 6.1(2)?
    a. Identify the target group and topic used for outreach and education.
    b. Identify the message used for each target group and topic.
    c. Identify how the message was conveyed to each target group.
    d. Identify measures/methods used to assess the effectiveness of the message used for each target group.

6.2 MCM2: Public Participation and Involvement:

5. Did the permittee post the SWMP and Annual Report on their website, per Permit Section 6.2(1)?

6. Did the permittee provide and publicize a reporting system to facilitate and track public reporting of spills, discharges and/or dumping to the MS4 on a continuous basis, per Permit Section 6.2(4)?

6.3 MCM3: IDDE:

7. Provide a narrative description of the status of the storm sewer mapping, per Permit Section 6.3(1). What is the date of the most recent storm sewer system map showing the location of all outfalls?

8. Did the permittee establish an ordinance or other regulatory mechanism for enforcement procedures of the IDDE Program per Permit Section 6.3(2)? What is the citation of the ordinance or other regulatory mechanism to prohibit non-stormwater discharges into the permittee's MS4?

9. Did the permittee establish or update the "Statement of IDDE Program Responsibilities," per Permit Section 6.3(3)?

10. The permittee shall submit one (1) copy of their 6.3(4) summary of IDDE activities in a tabular format.

11. Did the permittee visually monitor at least 20% of all outfalls this permit year, per Permit Section 6.3(7)?

12. Did the permittee identify indicators of IDDE Program progress or success per Permit Section 6.3(8)?

13. Did the permittee provide annual staff training, per Permit Section 6.3(9)?

    a. Approximately how many staff attended?

    b. What was the topic?

6.4 MCM4: Construction Activity Stormwater Runoff Control:

14. Did the permittee establish an ordinance or other regulatory mechanism for enforcement procedures of the Construction Activity Stormwater Runoff Control Program per Permit Section 6.4(2)(a)? What is the citation of the ordinance or other regulatory mechanism to require erosion and sediment controls, including sanctions to ensure compliance?

15. Did the permittee implement a construction site inventory, per Permit Section 6.4(2)(b)?

16. Did the permittee develop written procedures for site plan review, per Permit Section 6.4(2)(c)?

17. Did the permittee implement written procedures for site inspections and enforcement control measures, per Permit Section 6.4(2)(f)?

a. How many construction site inspections were done in the permit year?

b. How many follow-up actions were necessary (re-inspection, enforcement actions)?

18. Did the permittee develop and implement an educational program focused on erosion and sediment control for Construction Operators, per Permit Section 6.4(2)(h)?

19. Did the permittee develop and implement a program requiring construction operators to control wastes from their sites, per Permit Section 6.4(2)(i)?

20. Did the permittee implement procedures to receive and act on information submitted by the public (complaints), per Permit Section 6.4(4)?

6.5 MCM5: Post Construction:

21. Did the permittee implement a program that includes a combination of structural and non-structural BMPs, per Permit Section 6.5(1)?

22. Did the permittee establish an ordinance or other regulatory mechanism for enforcement procedures of the Post-Construction Stormwater Management per Permit Section 6.5(2)? What is the citation for the ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects?

23. Did the permittee implement a program to prevent or minimize impacts to water quality from stormwater runoff of new development and redevelopment sites, per Permit Section 6.5(2)?

24. Did the permittee implement procedures for site plan review, per Permit Section 6.5(3)?

25. Did the permittee implement an inventory of post construction site structural stormwater control measures installed within the MS4, per Permit Section 6.5(4)?

26. Did the permittee implement a program to ensure the long-term operation and maintenance of post construction BMPs, per Permit Section 6.5(5)?

6.6 MCM6: Pollution Prevention and Good Housekeeping:

27. Did the permittee implement a program to reduce or eliminate discharges of pollutants from municipal streets, facilities, yards, etc., per Permit Section 6.6(1)?

28. Did the permittee implement a program to ensure the long-term operation and maintenance of stormwater BMPs, per Permit Section 6.6(2)?

29. Did the permittee develop an inventory of facilities, prioritized based on their risk of discharging non-stormwater, per Permit Section 6.6(2)(a)?

30. Did the permittee implement an inspection schedule for prioritized facilities, per Permit Section 6.6(2)(c)?

31. Did the permittee implement an annual training program for staff that incorporates pollution prevention and good housekeeping techniques, per Permit Section 6.6(2)(f)?

    a. Approximately how many staff attended?

    b. What was the topic?

32. Did the permittee develop maintenance activities, schedules and long-term inspections to reduce floatables, trash and other pollutants from the MS4, per Permit Section 6.6(2)(g)?

33. Does the permittee discharge to a non-attaining or impaired water, or an Outstanding Arizona Water (OAW)?

Appendix B: Stormwater Characterization Monitoring Requirements

All permittees shall conduct stormwater characterization monitoring for the parameters listed in Table 7.0 below, as required by Parts 7.1, 7.2, and 7.3 of this permit.

Table B: Analytical Wet Weather Characterization Monitoring

Parameter	Units	Monitoring Frequency	Monitoring Type
Metals			
Antimony	µg/L	1x during first 42 months of permit term	Discrete
Barium	µg/L	1x during first 42 months of permit term	Discrete
Beryllium	µg/L	1x during first 42 months of permit term	Discrete
Cadmium	µg/L	1x during first 42 months of permit term	Discrete
Nickel	µg/L	1x during first 42 months of permit term	Discrete
Mercury	µg/L	1x during first 42 months of permit term	Discrete
Silver	µg/L	1x during first 42 months of permit term	Discrete
Thallium	µg/L	1x during first 42 months of permit term	Discrete
Inorganics			
Cyanide	µg/L	1x during first 42 months of permit term	Discrete
Volatile Organic Compounds (VOCs)			
Acrolein	µg/L	1x during first 42 months of permit term	Discrete
Acrylonitrile	µg/L	1x during first 42 months of permit term	Discrete
Benzene	µg/L	1x during first 42 months of permit term	Discrete
Carbon tetrachloride	µg/L	1x during first 42 months of permit term	Discrete
Chlorobenzene	µg/L	1x during first 42 months of permit term	Discrete

Parameter	Units	Monitoring Frequency	Monitoring Type
Dibromochloromethane	µg/L	1x during first 42 months of permit term	Discrete
Chloroethane	µg/L	1x during first 42 months of permit term	Discrete
2-chloroethylvinyl ether	µg/L	1x during first 42 months of permit term	Discrete
Chloroform	µg/L	1x during first 42 months of permit term	Discrete
Bromodichloromethane	µg/L	1x during first 42 months of permit term	Discrete
1,2-dichlorobenzene	µg/L	1x during first 42 months of permit term	Discrete
1,3-dichlorobenzene	µg/L	1x during first 42 months of permit term	Discrete
1,4-dichlorobenzene	µg/L	1x during first 42 months of permit term	Discrete
1,1-dichloroethane	µg/L	1x during first 42 months of permit term	Discrete
1,2-dichloroethane	µg/L	1x during first 42 months of permit term	Discrete
1,3-dichloropropylene	µg/L	1x during first 42 months of permit term	Discrete
Ethylbenzene	µg/L	1x during first 42 months of permit term	Discrete
Bromomethane	µg/L	1x during first 42 months of permit term	Discrete
Chloromethane	µg/L	1x during first 42 months of permit term	Discrete
Methylene chloride	µg/L	1x during first 42 months of permit term	Discrete
1,1,2,2-tetrachloroethane	µg/L	1x during first 42 months of permit term	Discrete
Tetrachloroethylene	µg/L	1x during first 42 months of permit term	Discrete
Toluene	µg/L	1x during first 42 months of permit term	Discrete
1,2-trans-dichloroethylene	µg/L	1x during first 42 months of permit term	Discrete
1,1,1-trichloroethane	µg/L	1x during first 42 months of permit term	Discrete

Parameter	Units	Monitoring Frequency	Monitoring Type
1,1,2-trichloroethane	µg/L	1x during first 42 months of permit term	Discrete
Trichloroethylene	µg/L	1x during first 42 months of permit term	Discrete
Vinyl chloride	µg/L	1x during first 42 months of permit term	Discrete
Xylene	µg/L	1x during first 42 months of permit term	Discrete
Semi-VOCs - Acid Extractable			
2-chlorophenol	µg/L	1x during first 42 months of permit term	Discrete
2,4-dichlorophenol	µg/L	1x during first 42 months of permit term	Discrete
2,4-dimethylphenol	µg/L	1x during first 42 months of permit term	Discrete
4,6-dinitro-o-cresol	µg/L	1x during first 42 months of permit term	Discrete
2,4-dinitrophenol	µg/L	1x during first 42 months of permit term	Discrete
2-nitrophenol	µg/L	1x during first 42 months of permit term	Discrete
4-nitrophenol	µg/L	1x during first 42 months of permit term	Discrete
p-chloro-m-cresol	µg/L	1x during first 42 months of permit term	Discrete
Pentachlorophenol	µg/L	1x during first 42 months of permit term	Discrete
Phenol	µg/L	1x during first 42 months of permit term	Discrete
2,4,6-trichlorophenol	µg/L	1x during first 42 months of permit term	Discrete
Semi-VOCs – Base/Neutrals			
Acenaphthene	µg/L	1x during first 42 months of permit term	Discrete
Acenaphthylene	µg/L	1x during first 42 months of permit term	Discrete
Anthracene	µg/L	1x during first 42 months of permit term	Discrete
Benz(a)anthracene	µg/L	1x during first 42 months of permit term	Discrete

Parameter	Units	Monitoring Frequency	Monitoring Type
Benzo(a)pyrene	µg/L	1x during first 42 months of permit term	Discrete
Benzo(b)fluoranthene	µg/L	1x during first 42 months of permit term	Discrete
Benzo(g,h,i)perylene	µg/L	1x during first 42 months of permit term	Discrete
Benzo(k)fluoranthene	µg/L	1x during first 42 months of permit term	Discrete
Chrysene	µg/L	1x during first 42 months of permit term	Discrete
Dibenzo(a,h)anthracene	µg/L	1x during first 42 months of permit term	Discrete
3,3'-dichlorobenzidine	µg/L	1x during first 42 months of permit term	Discrete
Diethyl phthalate	µg/L	1x during first 42 months of permit term	Discrete
Dimethyl phthalate	µg/L	1x during first 42 months of permit term	Discrete
Di-n-butyl phthalate	µg/L	1x during first 42 months of permit term	Discrete
2,4-dinitrotoluene	µg/L	1x during first 42 months of permit term	Discrete
2,6-dinitrotoluene	µg/L	1x during first 42 months of permit term	Discrete
Di-n-octyl phthalate	µg/L	1x during first 42 months of permit term	Discrete
1,2-diphenylhydrazine (as azobenzene)	µg/L	1x during first 42 months of permit term	Discrete
Fluoranthene	µg/L	1x during first 42 months of permit term	Discrete
Fluorene	µg/L	1x during first 42 months of permit term	Discrete
Hexachlorobenzene	µg/L	1x during first 42 months of permit term	Discrete
Hexachlorobutadiene	µg/L	1x during first 42 months of permit term	Discrete
Hexachlorocyclopentadiene	µg/L	1x during first 42 months of permit term	Discrete
Hexachloroethane	µg/L	1x during first 42 months of permit term	Discrete

Parameter	Units	Monitoring Frequency	Monitoring Type
Indeno(1,2,3-cd)pyrene	µg/L	1x during first 42 months of permit term	Discrete
Isophorone	µg/L	1x during first 42 months of permit term	Discrete
Naphthalene	µg/L	1x during first 42 months of permit term	Discrete
Nitrobenzene	µg/L	1x during first 42 months of permit term	Discrete
N-nitrosodimethylamine	µg/L	1x during first 42 months of permit term	Discrete
N-nitrosodi-n-propylamine	µg/L	1x during first 42 months of permit term	Discrete
N-nitrosodiphenylamine	µg/L	1x during first 42 months of permit term	Discrete
Phenanthrene	µg/L	1x during first 42 months of permit term	Discrete
Pyrene	µg/L	1x during first 42 months of permit term	Discrete
1,2,4-trichlorobenzene	µg/L	1x during first 42 months of permit term	Discrete
PCB / Pesticides			
Aldrin	µg/L	1x during first 42 months of permit term	Discrete
Alpha-BHC	µg/L	1x during first 42 months of permit term	Discrete
Beta-BHC	µg/L	1x during first 42 months of permit term	Discrete
Gamma-BHC	µg/L	1x during first 42 months of permit term	Discrete
Delta-BHC	µg/L	1x during first 42 months of permit term	Discrete
Chlordane	µg/L	1x during first 42 months of permit term	Discrete
4,4'-DDT	µg/L	1x during first 42 months of permit term	Discrete
4,4'-DDE	µg/L	1x during first 42 months of permit term	Discrete
4,4'-DDD	µg/L	1x during first 42 months of permit term	Discrete

Parameter	Units	Monitoring Frequency	Monitoring Type
Dieldrin	µg/L	1x during first 42 months of permit term	Discrete
Alpha-endosulfan	µg/L	1x during first 42 months of permit term	Discrete
Beta-endosulfan	µg/L	1x during first 42 months of permit term	Discrete
Endosulfan sulfate	µg/L	1x during first 42 months of permit term	Discrete
Endrin	µg/L	1x during first 42 months of permit term	Discrete
Endrin aldehyde	µg/L	1x during first 42 months of permit term	Discrete
Heptachlor	µg/L	1x during first 42 months of permit term	Discrete
Heptachlor epoxide	µg/L	1x during first 42 months of permit term	Discrete
PCB-1242	µg/L	1x during first 42 months of permit term	Discrete
PCB-1254	µg/L	1x during first 42 months of permit term	Discrete
PCB-1221	µg/L	1x during first 42 months of permit term	Discrete
PCB-1232	µg/L	1x during first 42 months of permit term	Discrete
PCB-1248	µg/L	1x during first 42 months of permit term	Discrete
PCB-1260	µg/L	1x during first 42 months of permit term	Discrete
PCB-1016	µg/L	1x during first 42 months of permit term	Discrete
Toxaphene	µg/L	1x during first 42 months of permit term	Discrete

Notes:

1. The permittee shall include any additional parameters in stormwater sampling as specified by Part 5.0 Water Quality Standards of this permit.
2. The permittee shall collect discrete samples and shall attempt to include the "first flush" (first 30 minutes of stormwater discharge) of a qualifying storm event whenever possible to do so. Auto Sampling equipment may be used, if available.
3. When analyzing for metals, the permittee shall assume a 1:1 total dissolved ratio

for purposes of reporting and comparison with SWQS. Alternatively, the permittee may test for dissolved metals, if appropriate field filtering is completed. Hardness data must also be collected and used to calculate the corresponding SWQS for certain metals as indicated by SWQS rules.

Appendix C: Total Maximum Daily Load (TMDL) Requirements

The following requirements are included in this permit based on applicable TMDL requirements in accordance with Part 1.3(5). See permit Parts 7.4 – 7.8 for specific analytical monitoring requirements.

Gila River

Name of TMDL	**Gila River – Centennial Wash to Gillespie Dam**
Document(s) for TMDL	**middlegila_centennial_tmdl_final.pdf** may be downloaded at https://www.azdeq.gov, search words "Middle Gila Watershed"
Location of Original 303(d) Listings	15070101-008
Area Where TMDL Requirements Apply	TMDL coverage includes areas served by an MS4 draining to the Gila River
Parameter(s)	Total Boron and Total Selenium
EPA Approval Date	November 2015
MS4 Permittee(s)	Town of Buckeye, Maricopa County

Town of Buckeye and Maricopa County:

The Town of Buckeye and Maricopa County shall analytically monitor stormwater discharges from MS4 outfalls to the Gila River, from Centennial Wash to Gillespie Dam. Analytical monitoring shall be submitted per permit part 7.0. Concentration-based waste load allocations (WLAs) for this TMDL are 1,000 g/L Total Boron and 2.0 g/L Total Selenium.

If the WLA are exceeded the permittee shall propose to ADEQ an action plan, including a schedule for implementation, and submit it to ADEQ at AZPDES@azdeq.gov within 60 calendar days of becoming aware of the WLA exceedance. ADEQ shall provide a review and approval within 30 calendar days. The permittee shall then incorporate the action plan into their SWMP. Repeat exceedances for the same parameter of the WLA does not require submittal of another action plan.

Granite Creek:

Name of TMDL	**Upper Granite Creek Watershed**
Document(s) for TMDL	**tmdl_granitecreek_final.pdf** may be downloaded at https://www.azdeq.gov, search words "Verde Watershed"
Location of Original 303(d) Listings	AZ15060202-059A
Area Where TMDL Requirements Apply	TMDL coverage includes areas served by an MS4 draining to Granite Creek
Parameter(s)	E. coli
EPA Approval Date	November 2015
MS4 Permittee(s)	City of Prescott, Yavapai County

City of Prescott and Yavapai County

The City of Prescott and Yavapai County shall analytically monitor stormwater discharges from MS4 outfalls to Granite Creek. Analytical monitoring shall be submitted as per permit part 7.0. Concentration-based WLAs for this TMDL are 235 cfu/100 ml (single sample maximum).

If the WLA are exceeded the permittee shall propose to ADEQ an action plan, including a schedule for implementation, and submit it to ADEQ at AZPDES@azdeq.gov within 60 calendar days of becoming aware of the WLA exceedance. ADEQ shall provide a review and approval within 30 calendar days. The permittee shall then incorporate the action plan into their SWMP. Repeat exceedances for the same parameter of the WLA does not require submittal of another action plan.

Oak Creek

Name of TMDL	**Oak Creek and Spring Creek**	
Document(s) for TMDL	**Verderiver_oakcreek_2010tmdl.pdf** may be downloaded at https://www.azdeq.gov, search words "Verde Watershed"	
Location of Original 303(d) Listings	Oak Creek-Headwaters to West Fork Oak Creek	15060202-019
	Oak Creek-West Fork to Slide Rock State Park	15060202-18A
	Oak Creek-At Slide Rock State Park	15060202-18B
	Oak Creek-Below Slide Rock S.P. to Dry Creek	15060202-18C
	Oak Creek-Dry Creek to Spring Creek	15060202-017
	Spring Creek-Coffee Creek to Oak Creek	15060202-022
Area Where TMDL Requirements Apply	TMDL coverage includes areas served by an MS4 draining to any of the reaches of Oak Creek or Spring Creek listed above.	
Parameter(s)	E. coli	
EPA Approval Date	August 2010	
MS4 Permittee(s)	City of Sedona, Coconino County, Yavapai County	

City of Sedona

The City of Sedona shall analytically monitor stormwater discharges from MS4 outfalls to Oak Creek. Analytical monitoring shall be submitted as per permit part 7.0. The City shall implement the WLAs listed in the Oak Creek and Spring Creek E. coli TMDL, 6.1.3.

If the WLA is exceeded the permittee shall propose to ADEQ an action plan, including a schedule for implementation, and submit it to ADEQ at AZPDES@azdeq.gov within 60 calendar days of becoming aware of the WLA exceedance. ADEQ shall provide a review and approval within 30 calendar days. The permittee shall then incorporate the action plan into their SWMP. Repeat exceedances for the same parameter of the WLA does not require submittal of another action plan.

Coconino County and Yavapai County

Coconino County and Yavapai County shall analytically monitor stormwater discharges from MS4 outfalls to Oak Creek. Analytical monitoring shall be submitted as per permit

part 7.0. Concentration-based WLAs for this TMDL are 235 cfu/100 ml (single sample maximum).

If the WLA is exceeded the permittee shall propose to ADEQ an action plan, including a schedule for implementation, and submit it to ADEQ at AZPDES@azdeq.gov within 60 calendar days of becoming aware of the WLA exceedance. ADEQ shall provide a review and approval within 30 calendar days. The permittee shall then incorporate the action plan into their SWMP. Repeat exceedances for the same parameter of the WLA does not require submittal of another action plan.

San Pedro

Name of TMDL	San Pedro River (Aravaipa Creek to Gila River)	
Document(s) for TMDL	sanpedro_ecoli_tmdl.pdf may be downloaded at https://www.azdeq.gov, search words "San Pedro Watershed"	
Location of Original 303(d) Listings	San Pedro River, Aravaipa Creek to Gila River	15050203-001
Area Where TMDL Requirements Apply	TMDL coverage includes areas served by an MS4 draining to any of the reaches of the San Pedro River	
Parameter(s)	E. coli	
EPA Approval Date	August 2013	
MS4 Permittee(s)	City of Sierra Vista, Cochise County	

City of Sierra Vista and Cochise County

The City of Nogales and Cochise County shall analytically monitor stormwater discharges from MS4 outfalls to the San Pedro River. Analytical monitoring shall be submitted as per permit part 7.0. Concentration-based WLAs for this TMDL are 235 cfu/100 ml (single sample maximum).

If the WLA is exceeded the permittee shall propose to ADEQ an action plan, including a schedule for implementation, and submit it to ADEQ at AZPDES@azdeq.gov within 60 calendar days of becoming aware of the WLA exceedance. ADEQ shall provide a review and approval within 30 calendar days. The permittee shall then incorporate the action plan into their SWMP. Repeat exceedances for the same parameter of the WLA does not require submittal of another action plan.

Santa Cruz

Name of TMDL	Upper Santa Cruz River Subwatershed Clean Water Plan for E. coli	
Document(s) for TMDL	Uscr_cwp_final_021020.pdf may be downloaded at https://www.azdeq.gov, search words "Santa Cruz Watershed"	
Location of Original 303(d) Listings	Santa Cruz River, Nogales IOW Outfall to Josephine Canyon	15050301-009
	Santa Cruz River, Josephine Canyon to the Tubac Bridge	15050301-008A
	Santa Cruz River, Tubac Bridge to Sopori Wash	15050301-008B
	Nogales Wash, US/Mexico Border to Potrero Creek	15050301-011
	Potrero Creek, Below I-19 to the Santa Cruz River	15050301-500B
Area Where TMDL Requirements Apply	TMDL coverage includes areas served by an MS4 draining to any of the reaches of Santa Cruz River, Nogales Wash and Potrero Creek as listed above.	
Parameter(s)	E. coli	
EPA Approval Date	February 2020	
MS4 Permittee(s)	City of Nogales	

City of Nogales

The City of Nogales shall analytically monitor stormwater discharges from MS4 outfalls to Nogales Wash and Potrero Creek. Analytical monitoring shall be submitted as per permit part 7.0. Concentration-based WLAs for this TMDL are 235 cfu/100 ml (single sample maximum).

If the WLA is exceeded the permittee shall propose to ADEQ an action plan, including a schedule for implementation, and submit it to ADEQ at AZPDES@azdeq.gov within 60 calendar days of becoming aware of the WLA exceedance. ADEQ shall provide a review and approval within 30 calendar days. The permittee shall then incorporate the action plan into their SWMP. Repeat exceedances for the same parameter of the WLA does not require submittal of another action plan.

Watson Lake

Name of TMDL	**Watson Lake TMDL**
Document(s) for TMDL	**tmdl_watsonlake_final.pdf** may be downloaded at https://www.azdeq.gov, search words "Verde Watershed"
Location of Original 303(d) Listings	AZL15060202-1590
Area Where TMDL Requirements Apply	TMDL coverage includes areas served by an MS4 draining to Watson Lake
Parameter(s)	Nutrients (Nitrogen, Phosphorus)
EPA Approval Date	February 2015
MS4 Permittee(s)	City of Prescott, Yavapai County

City of Prescott and Yavapai County

The City of Prescott and Yavapai County shall analytically monitor stormwater discharges from MS4 outfalls to Watson Lake. Analytical monitoring shall be submitted as per permit part 7.0. Concentration-based WLAs for this TMDL are equal to 1.0 mg/L total nitrogen and 0.10 mg/L TP.

If the WLA are exceeded the permittee shall propose to ADEQ an action plan, including a schedule for implementation, and submit it to ADEQ at AZPDES@azdeq.gov within 60 calendar days of becoming aware of the WLA exceedance. ADEQ shall provide a review and approval within 30 calendar days. The permittee shall then incorporate the action plan into their SWMP. Repeat exceedances for the same parameter of the WLA does not require submittal of another action plan.