

ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES)

FACT SHEET

This document provides pertinent information concerning the reissuance of the Arizona Pollutant Discharge Elimination System (AZPDES) individual stormwater permit listed below. The Arizona Department of Transportation (ADOT) is the owner and operator of a statewide Municipal Separate Storm Sewer System (MS4), numerous construction sites, and several industrial facilities and thus is regulated under the AZPDES permitting program. The conditions contained in the permit are intended to maintain the Water Quality Standards listed in Arizona Administrative Code (A.A.C.) R18-11-101 *et. seq.* The permit will be issued for a period of five (5) years.

Permittee: Arizona Department of Transportation (ADOT)

Permittee's Mailing Address: Environmental Planning Group
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AZPDES Permit No.: AZS000018

LTF Number: 80682

I. BACKGROUND

The Water Quality Act of 1987 added Section 402(p) of the Clean Water Act, which required the U.S. Environmental Protection Agency (EPA) to develop a phased approach to regulate stormwater discharges under the National Pollutant Discharge Elimination System (NPDES) program. EPA published the final regulations on the first phase of the NPDES stormwater program on November 16, 1990. These regulations, commonly known as the Phase I stormwater regulations, established permit application requirements for discharges from municipal separate storm sewer systems (MS4s) serving a population of 100,000 or more. The term “municipal separate storm sewer” is defined at 40 CFR §122.26(b)(8). MS4s include any publicly-owned conveyance or system of conveyances used for collecting and conveying stormwater that discharges to waters of the United States. Such a system may include roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains. The term “municipality” is defined at 40 CFR §122.2 and applies to ADOT as a public body that has jurisdiction over disposal of sewage, industrial wastes or other wastes

The Phase I stormwater regulations require an operator of a medium or large MS4 to obtain a NPDES permit for stormwater discharges from the MS4’s separate storm sewer system. The term “large MS4” is defined at 40 CFR §122.26(b)(4) as a municipal separate storm sewer system serving a population of 100,000 or more but less than 250,000. As ADOT is a large MS4, it applied for an individual MS4 stormwater permit, and EPA issued ADOT a Phase I MS4 stormwater permit on September 30, 1999. ADOT’s MS4 permit was expanded and renewed on September 19, 2008 (2008 permit). That permit was one of the outcomes of a January 30, 2004 ADEQ Consent Order that addressed ADOT’s non-compliance with the stormwater regulations under the Clean Water Act as well as the state’s Aquifer Protection Program and drywell regulations. The 2008 stormwater permit’s coverage included all stormwater discharges associated with construction, industrial and municipal activities under ADOT’s control throughout the state.

The Arizona Department of Environmental Quality (ADEQ) received authorization to administer the NPDES program in Arizona on December 5, 2002. The Arizona Pollutant Discharge Elimination System (AZPDES) program applies throughout Arizona except for Indian Country. Where there is no approved tribal program, EPA remains responsible, consistent with its trust authority for implementing and enforcing the NPDES program in Indian Country. This fact sheet provides rationale and information on the renewal of the Phase I MS4 stormwater permit being issued to the Arizona Department of Transportation. Both the permit and fact sheet cite federal regulations where specific regulatory language can be referenced. NPDES regulations have been incorporated by reference in the State AZPDES rules in the Arizona Administrative Code (A.A.C. R18-9-A905).

The Arizona Department of Transportation's fourth year annual report submitted under its 2015 permit served as ADOT's renewal permit application. ADEQ received ADOT's fourth year annual report in September 2019.

II. STATUS OF PERMIT

ADEQ issued the Phase I MS4 stormwater permit to ADOT on July 17, 2015, with an effective date of August 17, 2015. In September 2019 ADOT submitted the fourth year annual report to ADEQ for renewal of their MS4 permit. The stormwater permit for ADOT MS4 expired on August 16, 2020. The permit is administratively continued until the new permit is issued, in accordance with A.A.C. R18-9-B904(C).

ADEQ's development of the permit included discussions with ADOT and EPA, a review of information, including the associated audit report, the existing MS4 permit (AZS000018), the existing fact sheet and other reference materials as appropriate.

III. SUMMARY OF PERMIT CHANGES

This permit has been written to include and expand on specific permit conditions (including the Stormwater Management Program) and clarifying reporting requirements.

Current Permit	2021 Permit	Reason for Change
SWMP: Public Education and Outreach and Public Involvement and Participation	SWMP: Evaluation of target groups and changes adopted in response to targeted behaviors. Host an annual public SWMP workshop to create opportunity for citizens to participate in development and implementation of the Permittee's SWMP.	These requirements provide clarity on how the Permittee should respond to public outreach behaviors and provide involvement opportunities.
SWMP: Illicit Discharge Detection and Elimination (IDDE)	SWMP: Inspections and screening for non-stormwater discharges into the MS4 may be conducted using the <i>Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments</i> or another method of equal or improved effectiveness.	To establish clear policies and procedures for tracing and eliminating illicit discharges and to ensure that individual incidents are addressed consistently. New language will provide clarity and certainty for implementing the IDDE program.
SWMP: Post Construction requirement to establish standards	SWMP: Implement specific Post Construction measurable standard that the MS4 requires	For the renewal permit ADEQ is incorporating the post-construction standard that the MS4 has implemented and incorporated in policies.
SWMP: Post Construction	SWMP: Post Construction, a retrofit planning requirement to address pollution-generating MS4 infrastructure through potential retrofitting.	Retrofit plan moved from maintenance of roadways to post construction section, planning requirement to determine feasibility.
Monitoring Requirements: No discharge characterization requirement	Monitoring Requirements: Discharge characterization monitoring during year 4 of the permit term	Analytical characterization monitoring has been added for year 4 of the permit term and includes all other priority pollutants with SWQS not being monitored throughout the permit term. The characterization data will be used during the next renewal application to re-evaluate the MS4's pollutant of concerns and identify potential changes in stormwater quality during the permit term.

Annual Report Paper Form submittal, largely narrative	Annual Report electronic submittal	Electronic reporting rule deadline is December 21, 2025 for annual report requirement.. ADEQ is collecting information that is measurable and enforceable.
Non-filer reporting	Non-filer reporting submit electronically to AZPDES@azdeq.gov and submit within 5 days of identifying a non-filer	Identification of non-filers should be reported as soon as possible to allow ADEQ to follow up on these facilities. Electronic reporting available with the AZPDES inbox.
Submit Discharge Monitoring Reports (DMRs) with annual report in paper form	Submit Discharge Monitoring Reports (DMRs) electronically through myDEQ	Electronic reporting rule deadline was December 21, 2016 for DMRs and myDEQ is now available.

IV. SUMMARY OF PERMIT CONDITIONS

1.0 Authorization

The permit only authorizes stormwater discharges from ADOT’s storm sewer system, certain non-stormwater discharges and discharges from their maintenance facilities to the MS4 and to Waters of the U.S.

2.0 Legal Authority

Conditions for the Permittee to establish the legal authority to carry out the permit requirements are specified in Section 2.0 of this permit. Adequate legal authority is required to implement and enforce most parts of the SWMP (See 40 CFR 122.26(d)(2)(i) and 40 CFR 122.34(b)(3)(ii)(B), (b)(4)(ii)(A), and (b)(5)(ii)(B)). The permit requires ADOT to establish and otherwise maintain the legal authority to carry out the terms and conditions of this permit to control the release of pollutants to, and the discharge of pollutants from, the storm sewer system, to the extent allowable under State law. Without adequate legal authority the MS4 would be unable to perform many vital SWMP functions such as performing inspections, allowing discharges to its MS4 via encroachment permits (including control measures to connect to ADOT’s MS4), prohibiting illicit discharges and developing interagency agreements. In addition, ADOT would not be able to penalize and/or recover remediation costs from violators.

Non-traditional MS4s (such as a DOT, military base, or university) cannot pass “ordinances” nor do they have enforcement authority like a typical municipality. Therefore, ADOT must rely upon the attorney general’s office of the state of

Arizona for enforcement against violators, including, when necessary, imposition of monetary penalties. Nevertheless, ADOT must have the legal authority to develop, implement, and enforce the stormwater program. ADOT does this through the contracts they require of highway construction operators. Those contracts include specific stormwater requirements that ensure the stormwater permit's requirements are met. Another component is the issuance of encroachment permits.

3.0 Arizona Surface Water Quality Standards (SWQS)

The Permittee is required to protect water quality by ensuring, to the maximum extent practicable, that no discharge causes or contributes to an exceedance of any water quality standard applicable to a surface water receiving discharges from the MS4. To do so, the Permittee is to fully implement and maintain the provisions of their SWMP and all other requirements of this permit. Arizona Surface Water Quality Standards (WQS) that apply to the surface waters receiving discharges from ADOT are specified in A.A.C. Title 18, Chapter 11, Article 1. Additionally, there is a prohibition on non-stormwater discharges if there is a potential to reach a 303(d) listed impaired water or outstanding Arizona water.

Under 3.1.C, the Permittee shall notify ADEQ of monitoring results that show pollutants higher than SWQS for two consecutive sampling events at the same location or if the Permittee has site specific knowledge that the discharge from their MS4 caused or contributed to a SWQS exceedance in the receiving water. If the cause of the exceedance cannot be addressed by implementing Permit conditions, e.g. application of illicit discharge screening measures or focused public outreach and education, then a plan must be created and submitted to ADEQ for review and approval. It is anticipated that this plan requirement would apply only in unique circumstances where the Permit simply cannot address the particular pollution problem, e.g. an illicit discharge of PCB-laden transformer oil that seriously contaminates MS4 infrastructure and the receiving water.

If ADOT discharges into any waterbody that has a completed TMDL, those discharges must conform to the TMDL documents if they address any activities that ADOT is conducting or pollutants that ADOT may release. If the TMDL documents are non-specific, ADOT is to address pollutants of concern for which the waterbody is impaired and employ control measures to minimize those pollutants in the appropriate stormwater pollution prevention documents. ADOT will be required to meet surface water quality standards for *E.coli* in its MS4 discharges to the reaches of Oak Creek and the San Pedro River. In addition, Granite Creek and Watson Lake have TMDLs completed. ADOT is assigned waste load allocations be met for *E.coli* in the Granite Creek TMDL and phosphorus and total nitrogen in the Watson Lake TMDL. State highway (SR 85)

transits the TMDL watershed for the Gila River impairment. As an MS4, ADOT is required to meet a concentration-based WLA equivalent to the applicable surface water quality standards for boron and selenium in its MS4 discharges to the reach of the Gila River. The Little Colorado River TMDL has requirements for MS4s. Several state highways that transit the TMDL watershed, including Highways 77, 277, 260, 180, and 61. ADOT is required to meet the concentration-based WLA in the TMDL. EPA approved the Upper Santa Cruz River Subwatershed Clean Water Plan for *E. coli* in 2020. Several Arizona highways are located in the project area (I-19, Highway 289, Highway 189, Highway 82, and Highway 83). While not expected to be a significant source of bacteria, the ADOT MS4 permit was assigned a concentration-based WLA in the TMDL that is applicable throughout the project area (load-based calculations were not performed because highways are not expected to be a consistent or significant source of *E. coli* loading).

In watersheds with a TMDL, where ADOT is not assigned a waste load allocation, and for those receiving waters without a TMDL yet assigned, ADOT's stormwater discharges must meet applicable surface water quality standards at the point of discharge.

4.0 Stormwater Management Program (SWMP)

4.1 **Program Implementation**

CWA § 402(p)(3)(B)(iii) requires that a municipal permit require controls to reduce the discharge of pollutants to the "maximum extent practicable" (MEP), including management practices, control techniques and system design, and engineering methods, and other provisions that ADEQ determines appropriate for the control of such pollutants. ADOT complies with MEP through implementation of its SWMP, a comprehensive document that describes a program for controlling pollutants in stormwater runoff from the storm sewer system in conjunction with the permit.

The Phase I stormwater regulations (40 CFR 122.26(d)(2)(iv)) identified the following general components of a SWMP:

1. Measures to reduce pollutants from commercial and residential areas;
2. Measures to control illicit connections and illegal dumping to the storm sewer system;
3. Measures to reduce pollutants from industrial facilities; and
4. Measures to reduce pollutants from construction sites.

The Phase I regulations on SWMP requirements are specified in 40 CFR 122.26(d) and are incorporated by reference into the state rules. The term SWMP may refer to the written document or the implemented program. (See 40 CFR 122.26(d)(2)(iv), 122.34(a)).

4.2 Training

The current permit language is re-written such that ADOT has the flexibility it needs to incorporate appropriate stormwater training into any job-specific training program. Documentation requirement for the SWMP and Annual Report remain unchanged from the previous permit.

4.3 Enforcement Response Plan

ADOT must have an established, escalating enforcement policy that clearly describes the action to be taken for common violations. The policy must describe the procedures to ensure compliance with local ordinances and standards, including the sanctions and enforcement mechanisms that will be used to ensure compliance (see 40 CFR 122.26(d)(2)(i)). ADOT's authority is critical in this area in order to initiate a range of enforcement actions to address the variability and severity of noncompliance. Enforcement responses to individual violations must consider criteria such as magnitude and duration of the violation, effect of the violation on the receiving water, compliance history of the operator, and good faith of the operator in compliance efforts. Particularly for construction sites, enforcement actions must be timely in order to be effective.

4.4 Public Education and Outreach

The public education and outreach program must be tailored and targeted to reduce transportation-related pollutants and improve water quality. These community-wide and targeted issues must then guide the development of the comprehensive outreach program, including the creation of appropriate messages and educational materials.

The underlying principle of any public education and outreach effort is to change behaviors. As with employee/ contractor training, the goal is to *reduce* or *eliminate* behaviors and practices that cause or contribute to adverse impacts to stormwater quality. The Permittee must develop a process to assess how well its public education and outreach programs are changing public awareness and behaviors and to determine what changes are necessary to make its public education program more effective. This assessment of public education programs is typically

conducted via online surveys, but other assessment methods that quantify results can be used. The Permittee is encouraged to use a variety of assessment methods to evaluate the effectiveness of different public education activities. The permit requires that the first evaluation assessment be conducted before the final year of the Permittee's coverage under this permit, before the next permit is issued.

4.5 Public Involvement and Participation

This permit requires the involvement of the public, which includes an annual public SWMP workshop to solicit feedback on the stormwater program, and opportunities for citizens to participate in implementation of the stormwater program. Public participation in implementation of the stormwater program can include many different activities such as stream clean-ups, storm drain markings, and volunteer monitoring. Permittees are encouraged to work together with other entities that have an impact on stormwater (for example, schools, homeowner associations, DOTs, other MS4 permittees). Permittees are also encouraged to use existing processes in order to implement these public involvement requirements.

4.6 Illicit Discharge Detection and Elimination (IDDE)

The Clean Water Act, section 402(p)(3)(B)(ii) requires MS4 permits to "effectively prohibit non stormwater discharges into the storm sewers." The permit implements this requirement by requiring the development of procedures to investigate and eliminate illicit discharges in a timely manner. ADOT must develop clear procedures for conducting the investigation of illicit discharges. Additionally, a reporting format is introduced to standardize how illicit discharges are reported in the annual report.

Tracing the origin of a suspected illicit discharge or connection requires an up-to-date map of the storm drain system. Mapping is critical in order to isolate the potential source of the non-stormwater discharges and the areas of potential impact. Ideally, the information should be available as a geographic information system (GIS) layer in a geo-locational database; however, paper maps are sufficient provided that they have the necessary reference information.

During the 2015 permit term, ADOT completed mapping for the Interstate 8, 10, 17, 19, and 40 corridors. For this permit term, ADOT will complete their mapping for US 60, SR 77, SR 85, SR 260, US 95, SR 69, SR 87, and SR 89.

4.7 Pollution Prevention and Good Housekeeping Practices for Facilities

Transportation-owned or operated facilities serve as hubs of activity for a variety of staff from many different departments. Some municipalities will have one property at which all activities take place (e.g., the municipal maintenance yard), whereas others will have several specialized facilities such as those listed above. A comprehensive list and map of such facilities will help staff responsible for stormwater compliance build a better awareness of their locations within the MS4 service area and their potential to contribute stormwater pollutants. The facility inventory will also serve as a basis for setting up periodic facility assessments and developing, where necessary, facility stormwater pollution prevention plans. SWPPPs are necessary only for heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the Permittee not covered by an MSGP per 4.7.C.1. ADOT's administrative complexes and rest areas are excluded from permit requirements.

4.8 Measures to Control Discharges from Highway Operations and Maintenance

The permit requires a program to address roadway and storm sewer system maintenance, cleaning and repair, vegetation management, erosion abatement and winter storm policies. Specific requirements include repairs, maintenance, and cleaning for roadways used for stormwater conveyance and ADOT's storm sewer system. Maintenance from roadways includes inspections, proper waste disposal, and good housekeeping measures.

4.9 Construction Sites

MS4 permits must address construction-related requirements (and often more specific state requirements) found in the following Federal regulations – Phase I MS4 Regulations 40 CFR 122.26(d)(2)(iv)(D).

Stormwater discharges from construction sites generally include sediment and other pollutants such as phosphorus and nitrogen, turbidity, pesticides, petroleum derivatives, construction chemicals, and solid wastes that may become mobilized when land surfaces are disturbed. The permit requires the Permittee to require construction site operators at defined sites to meet certain minimum stormwater requirements relating to erosion and sediment control and pollution prevention, and to meet other restrictions imposed on them by the State, or local regulations.

These minimum requirements clearly specify the expectations for addressing erosion control, sediment control, and pollution prevention control measures at construction sites.

4.10 Post-Construction

Developed land changes the hydrology of sites, leading to higher stormwater discharge volumes and higher pollutant loads. The purpose of implementing a post-construction standard is to maintain or restore stable hydrology in receiving waters thereby protecting water quality by having post-construction hydrology mimic the natural hydrology of the area. The applicable post-construction standards are documented in the 2016 ADOT Post-Construction Best Management Practices Manual.

It is clear that we cannot protect the nation's waters without also addressing degradation caused by stormwater discharges from existing developed sites. For that reason stormwater programs must include substantive retrofit provisions. It is possible and reasonable to significantly improve water quality in many urban receiving waters. This requires more than just a new development and redeveloped sites program, however, which at best can only hold the line. To actually improve the quality of receiving waters it is necessary to mitigate discharges from existing developed sites, which generally means implementation of measures to bring about the retrofit of the stormwater control measures at existing sites to retain most stormwater on site. Municipal projects, such as traffic calming sites could also include stormwater retrofit components, such as curb bump outs that include bioretention features, rain gardens, and curb cuts. Information on retrofit options and the development of a retrofit plan can be found in the Center for Watershed Protection's guidance on Urban Stormwater Retrofit Practices (available at www.cwp.org as Manual No. 3 under the Urban Subwatershed Restoration Manual Series).

5.0 Monitoring Requirements

Monitoring conditions were developed to meet the following objectives:

- To characterize stormwater quality and identify stormwater pollutants;
- To detect and eliminate illicit discharges; and
- To evaluate the effectiveness of specific control measures and the SWMP as a whole, in minimizing the discharge of pollutants.

ADEQ has removed the term 'measurable storm' event and clarified it as a 'qualifying storm event' for the purposes of wet weather monitoring. Another monitoring condition retained in this permit requires that stormwater samples

include whenever possible the “first flush” (first 30 minutes of stormwater discharge) of a qualifying storm event to identify initial pollutants that may shock surface waters, as well as assess the effectiveness of structural controls, such as retention basins, in managing the first flush of pollutants. The first flush may also be effective in detecting non-stormwater discharges to the stormwater system because such pollutants may be flushed out of the system during the initial portion of the discharge. This permit requires the Permittee to maintain monitoring records, including the volume, duration, and flow rate of stormwater discharge.

By characterizing past stormwater quality data and analyzing the potential for pollutants in the future, the reduced list of parameters allows the Permittee to focus on the pollutants of concern and implement the proper control measures to reduce pollutants to the maximum extent practicable.

6.0 Reporting Requirements

6.1 **Discharge Monitoring Reports (DMRs)**

This permit requires the Permittee to conduct wet weather sampling throughout the permit term. For this permit discharge monitoring records (DMRs) through myDEQ will be available for the Permittee to submit their monitoring results. The reports will be electronically submitted along with the following:

1. Original copies of laboratory reports
2. Bench sheets or similar documentation for field testing parameters
3. Reports for SWQS exceedances

6.2 **Annual Report**

The requirement for submitting an annual report on the status of the stormwater management program is retained from the 2015 permit. Similarly, this permit requires that the Permittee submit an annual report that summarizes the progress of the SWMP and findings of monitoring events for each year of the permit term. This permit has included an updated Annual Report that simplifies and clarifies the information required to be reported for compliance purposes. An annual report form is included in Appendix A of the permit and will be available electronically through myDEQ during the permit term. The reporting period for the annual report will be July 1 – June 30.

6.3 **Renewal Application**

This permit requires that a renewal application is submitted at least 180 days prior to expiration of the permit. Information required in Appendix B will serve as the Permittee’s renewal application. All information listed in

Appendix B will be submitted to ADEQ at AZPDES@azdeq.gov to ensure the Permittee meets renewal application requirements specified in A.A.C. R18-9-B904(B).

6.4 Non-filers

The non-filer reporting condition is retained in this permit for the MS4 to report any identified construction activities occurring without an AZPDES permit to discharge stormwater associated with those activities (e.g., CGP non-filers). The determination that an operator is lacking AZPDES permit coverage will be based on inspection of the site or facility, or other information available to the Permittee, such as public complaints, business licenses, building permits, and other city records. The Permittee has no obligation to enforce the state requirement to obtain permit coverage, but general information about the construction project or industrial facility is to be collected and provided to ADEQ within 5 days of identification. This reporting can be accomplished by e-mail to the AZPDES@azdeq.gov inbox.

7.0 Standard AZPDES Permit Conditions & Notification

In accordance with 40 CFR 122.41, conditions applicable to all NPDES permits are included in Section 7.0 of this permit. Other standard conditions are specified in this permit in accordance with 40 CFR 122.21, 122.22, 122.64, Arizona Revised Statutes, and the Clean Water Act.

V. ADMINISTRATIVE INFORMATION

Public Notice (A.A.C. R18-9-A907)

The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft AZPDES permit or other significant action with respect to an AZPDES permit or application. The basic intent of this requirement is to ensure that all interested parties have an opportunity to comment on significant actions of the permitting agency with respect to a permit application or permit. This permit will be public noticed in a local newspaper after a pre-notice review by the applicant and other affected agencies.

Public Comment Period (A.A.C. R18-9-A908)

Rules require that permits be public noticed in a newspaper of general circulation within the area affected by the facility or activity and provide a minimum of 30 calendar days for interested parties to respond in writing to ADEQ. After the closing of the public comment period, ADEQ is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.

Public Hearing (A.A.C. R18-9-A908(B))

A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. A public hearing will be held if the Director determines there is a significant amount of interest expressed during the 30-day public comment period, or if significant new issues arise that were not considered during the permitting process.

EPA Review (A.A.C. R18-9-A908(C))

A copy of this draft permit and any revisions made to this draft as a result of public comments received will be sent to EPA Region 9 for review. If EPA objects to a provision of the draft, ADEQ will not issue the permit until the objection is resolved.

VI. ADDITIONAL INFORMATION

Additional information relating to this proposed permit may be obtained from:

Arizona Department of Environmental Quality
Water Quality Division – Surface Water Permits Unit
Attn: Devin McAllister
1110 West Washington Street
Phoenix, Arizona 85007

Or by contacting Devin McAllister at (602) 771 – 4374 or by e-mail at mcallister.devin@azdeq.gov.