DRAFT PERMIT

azdeq.gov

Permit No.	AZS000004
LTF No.	109587
Place ID No.	143363

AUTHORIZATION TO DISCHARGE STORMWATER FROM A MUNICIPAL SEPARATE STORM SEWER SYSTEM TO PROTECTED SURFACE WATERS UNDER THE ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Article 3.1, the Federal Water Pollution Control Act, (33 U.S.C. §1251 *et seq*., as amended), and Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Article 9, and amendments thereto, the

City of Mesa
Phase I Municipal Separate Storm Sewer System (MS4)
PO Box 1466 MS 9950
Mesa, AZ 85211

is authorized to discharge stormwater from the municipal separate storm sewer system (MS4) owned or operated by the City of Mesa to Water of the U.S. (WOTUS) and non-WOTUS protected surface waters in accordance with the terms and conditions set forth in this permit. State requirements for discharges to non-WOTUS protected surface waters are enforceable solely by the Arizona Department of Environmental Quality (ADEQ).

Annual Registration Fee [A.R.S. 49-255.01 and A.A.C. R18-14-104].

The annual registration fee for this permit is payable to ADEQ each year.

This permit shall become effective on _____.

This permit and the authorization to discharge shall expire on _____.

Signed _____.

_____
Josephine Maressa, Deputy Director
Water Quality Division
Arizona Department of Environmental Quality

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1.0 AUTHORIZATION

[40 CFR 122.26(a)(3)(i) incorporated by reference in A.A.C. R18-9-A905; A.R.S. 49-221(G)]

1.1 Applicability

This permit applies to the municipal separate storm sewer system (MS4) owned or operated by the City of Mesa, a Phase I MS4.

1.2 Authorized Discharges

Subject to the terms and conditions of this permit, the City of Mesa (Permittee) is authorized to discharge stormwater from MS4 outfalls owned or operated by the City of Mesa to all waters on the protected surface water list, including discharges to 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.

1.3 Limitations of Coverage

This permit does not authorize the following discharges:

A. Stormwater discharges associated with industrial activity as defined in 40 CFR 122.26(b)(14)(i)-(ix) and (xi);

B. Stormwater discharges associated with construction activity as defined in 40 CFR 122.26(b)(14)(x) or 40 CFR 122.26(b)(15); and

C. Non-stormwater discharges, except discharges associated with emergency firefighting activities and allowable non-stormwater discharges listed in Section 4.4.B.

2.0 LEGAL AUTHORITY

[40 CFR 122.26(d)(1)(ii) incorporated by reference in A.A.C. R18-9-A905]

The Permittee shall continue to develop, maintain, and enforce adequate legal authority to control the discharge of pollutants into and from its MS4 through a combination of ordinance, statute, permit, contract, or similar means.

2.1 Review Legal Authority

[40 CFR 122.26(d)(1)(ii) incorporated by reference in A.A.C. R18-9-A905]

Within 24 months of the effective date of this permit, the Permittee shall review, and if necessary revise and/or adopt relevant rules, memorandums of agreement or other regulatory mechanisms, to the extent allowable under state law that provides the Permittee adequate legal authority to control the discharge of pollutants into and from its MS4 to meet the requirements of this permit.

2.2 Maintain Adequate Legal Authority

[40 CFR 122.26(d)(2)(i) incorporated by reference in A.A.C. R18-9-A905]

To the extent allowable under state law, the Permittee shall maintain legal authority that must, at a minimum, authorize or enable the Permittee to:

A. Control through ordinance, permit, contract, order or similar means the contribution of pollutants to its MS4 by stormwater discharges associated with industrial activity and the quality of stormwater discharged from sites of industrial activity;

B. Control through ordinance, permit, contract, order or similar means the contribution of pollutants to its MS4 by stormwater discharges associated with construction activity and the quality of stormwater discharged from sites of construction activity;

C. Prohibit through ordinance, order or similar means, illicit discharges to the MS4;

D. Control through ordinance, order or similar means the discharge to its MS4 of spills, dumping or disposal of materials other than stormwater;

E. Require compliance with conditions in ordinances, permits, contracts or orders;

F. Carry out all inspection, surveillance and monitoring procedures necessary to determine compliance and noncompliance with permit conditions including the prohibition of illicit discharges to the MS4; and

G. Establish requirements for post-construction stormwater controls.

3.0 ARIZONA SURFACE WATER QUALITY STANDARDS (SWQS)

3.1 Protection of Water Quality from MS4 Discharges

[40 CFR 122.26(d)(2)(iv) incorporated by reference in A.A.C. R18-9-A905; A.R.S. 49-221]

A. The Permittee shall protect water quality by reducing the discharge of pollutants, to the maximum extent practicable, that cause or contribute to an excursion of any applicable surface water quality standard (SWQS) that is currently in effect as of the permit effective date including the narrative standards that are applicable to the protected surface water receiving discharges from the MS4. To do so, the Permittee shall fully implement the Stormwater Management Program (SWMP) as required in Part 4.0, any subsequent revisions, and all requirements of this permit.

[40 CFR 122.26(d)(2)(iii) incorporated by reference in A.A.C. R18-9-A905]

B. The Permittee shall analyze stormwater monitoring data at the identified monitoring locations, as required in Part 5.0 (Monitoring Requirements), by submitting Discharge Monitoring Reports (DMRs) with the stormwater monitoring data to compare with applicable SWQS at the respective outfall or field screening point to the protected surface water if applicable. A test result above a SWQS does not constitute a violation of this permit provided the Permittee is implementing applicable control measures to reduce the discharge of pollutants to the maximum extent practicable in the drainage area(s) where the elevated test result occurred and in compliance with the conditions of this permit.

[40 CFR 122.41(d) incorporated by reference in A.A.C. R18-9-A905(A)(3)(a)]

C. The Permittee shall evaluate the effectiveness of existing control measures on the pollutant(s) of concern for the applicable drainage area and modify existing control measures or implement additional control measures, as necessary, to reduce the discharge of pollutants to the maximum extent practicable. Section 3.2 details the triggering events and the requirements for an Action Plan to address SWQS excursions.

3.2 Action Plan for Results Above a SWQS

[40 CFR 122.26(d)(2)(iv), 40 CFR 122.44(d)(1) and 40 CFR 122.44(k) incorporated by reference in A.A.C. R18-9-A905]

A. The Permittee shall control discharge from the MS4 as necessary to not cause or contribute to a result above an applicable surface water quality standard (SWQS) in the protected surface water to the maximum extent practicable.

B. If monitoring at an outfall or field screening point yields at least two consecutive quantified tests with quantified results above a SWQS at the same location and for different sampling events, the Permittee must complete the Action Plan requirements in Sections 3.2.C or 3.2.D depending on the parameter. The Action Plan requirements can be satisfied by describing the Permittee's

existing control measures and/or best management practices implemented prior to the monitoring as well as any control measures and/or best management practices that the Permittee will implement following the test results.

C. Action Plan for Copper, Lead, or *E. coli*

1. Annual Reporting

The Permittee shall complete the Action Plan Report using the MS4 Action Plan Form provided by ADEQ. The Permittee shall submit the Action Plan Report as an attachment to the annual report for that reporting year in myDEQ. The Action Plan Report shall be specific to the outfall or field screening point and corresponding catchment area for which consecutive monitoring test results are above a SWQS for copper, lead, and/or *E. coli*. Qualifying actions may include, but are not limited to:

i. Employee training,

ii. Public education and outreach,

iii. Illicit discharge detection and elimination,

iv. Other non-structural best management practices (BMPs), or

v. Structural BMPs.

2. Completion of Action Plan Reporting

Submitting a complete MS4 Action Plan Form satisfies the reporting requirements for the duration of the permit term. However, if the Permittee modifies its planned actions to mitigate SWQS excursions, the Permittee shall attach an updated Action Plan Form to the subsequent Annual Report.

3. Additional Monitoring

If monitoring is performed more frequently than required in Table 3 (e.g. monitoring performed as part of source identification or to evaluate corrective action efficacy), test results must be reported on a DMR, provided the sample collection and analysis meets permit requirements for valid compliance monitoring. A data evaluation may be submitted with the complete MS4 Action Plan Form to supplement the requirement in Section 3.2.C.1.

D. Action Plan for All Other Parameters

1. Biannual Reporting

The Permittee shall complete the Action Plan Report using the MS4 Action Plan Form provided by ADEQ. The Permittee shall submit the Action Plan Report as an attachment to the DMR for the corresponding wet season as specified in Table 1. The Action Plan Report shall describe actions taken to address discharge of the parameter(s) specific to the outfall or field screening point and corresponding catchment area for which consecutive monitoring test results are above a SWQS. The Permittee shall report the following:

i. Cause or source of the elevated test results (if known),

ii. Updates to existing BMPs (if applicable),

iii. Corrective actions taken (if applicable),

iv. Updates to the SWMP in direct response to the elevated test results (if applicable), and

v. Resolution to consecutive test results above a SWQS (if applicable).

2. Completion of Action Plan Reporting

   Action Plan reporting requirements are satisfied once the Permittee obtains two consecutive test results at or below the applicable SWQS for a specific parameter and outfall/field screening point. To finalize this process, a completed Action Plan Form documenting these results must be submitted to ADEQ.

3. Additional Monitoring

   If monitoring is performed more frequently than required in Table 3 (e.g. monitoring performed as part of source identification or to evaluate corrective action efficacy), test results must be reported on a DMR, provided the sample collection and analysis meets permit requirements for valid compliance monitoring. A data evaluation may be submitted with the complete MS4 Action Plan Form to supplement the requirement in Section 3.2.D.1.

3.3 Discharges from the MS4 to WOTUS Outstanding Arizona Waters

[A.A.C. R18-11-112]

If a WOTUS protected surface water is classified as an Outstanding Arizona Water (OAW) during the permit term and has the potential to be impacted by discharges from the MS4, then this permit may be reopened and modified in accordance with A.A.C. R18-9-B906 and 40 CFR 122.62 to include additional conditions to ensure the OAW is adequately protected. The Stormwater Management Program (SWMP) shall be updated for annual reporting within twelve months of a new OAW listing to identify the OAW.

3.4 Discharges from the MS4 to Impaired Waters

[A.A.C. R18-11-604]

A. Discharges to Impaired Receiving Waters Without an Approved TMDL

   If a WOTUS protected surface water receiving discharge from this MS4 is listed as impaired or not-attaining on the Clean Water Act 303(d) list of the most current U.S. Environmental Protection Agency (U.S. EPA)-approved version of Arizona's biennial Integrated Report during the permit term, the Permittee shall evaluate and implement (if applicable) additional control measures to minimize the discharge of any 303(d) listed parameter(s) from the MS4 to that impaired or not-attaining protected surface water.

   1. Analytical Monitoring Requirement

      In addition to the monitoring requirements in Table 3 and Table 4, the Permittee shall monitor for the specific 303(d) listed parameter(s) at a representative field screening point or outfall discharging to the impaired or not-attaining water.

      a. Monitoring or discrete sample collection for the impaired parameter shall be conducted throughout the remainder of the permit term and the monitoring frequency for the impaired parameter shall be at least once per wet season to align with the Seasonal Monitoring requirements in Table 3. Monitoring shall be initiated within one year of EPA's approval of the receiving water listing as impaired or not-attaining.

      b. If the outfall or field screening point selected for monitoring is not listed in Table 2, the Permittee shall notify ADEQ within 30 days of the selection. This permit may be reopened and modified in accordance with A.A.C. R18-9-B906 and 40 CFR 122.62 to include an additional outfall or representative field screening point for analytical monitoring and any additional conditions necessary to ensure the impaired water is protected.

2. SWMP Updates

   The Stormwater Management Program (SWMP) shall be updated within twelve months of a new impairment listing to identify the impaired water and associated parameter(s). The SWMP update shall either outline specific Best Management Practices (BMPs) the Permittee is or will implement to control discharge of the listed parameter(s), if applicable, or outline why BMP implementation to address discharge of the listed parameter(s) is not applicable or practicable.

3. Effectiveness Tracking

   To ensure to the maximum extent practicable that the discharge from the MS4 does not cause or contribute to an excursion of a surface water quality standard, the SWMP shall include a section detailing how the Permittee will evaluate BMP effectiveness. The Permittee shall select and report on at least one of the following metrics annually, to be described in the SWMP and submitted as an attachment to the annual report, for each listed parameter:

   a. Number of illicit discharges detected and eliminated involving the 303(d) listed parameter(s);

   b. Total mass in metric units of sediment or the specific parameter removed via maintenance activities (e.g., street sweeping or catch basin cleaning);

   c. Pollutant removal efficiency of structural BMPs determined via paired influent/effluent sampling or validated modeling;

   d. Statistical trend analysis of receiving water pollutant concentrations collected at a consistent location selected by the Permittee over the permit term; or

   e. Other more suitable quantitative analysis upon written notification to azpdes@azdeq.gov and approval by ADEQ.

B. Discharge to a Receiving Water with an Approved TMDL

The SWMP shall be consistent with any requirements established for the MS4 by a Total Maximum Daily Load (TMDL) approved by the U.S. EPA, including any wasteload allocation (WLA). The WLA and TMDL requirements apply regardless of subsequent updates to the impairment status of the receiving water in the Integrated Report. This requirement applies if a TMDL is approved by the U.S. EPA during the permit term.

1. WLA Compliance and BMP Effectiveness

   If a WLA is established for discharge from the MS4 the SWMP shall be updated within twelve months of TMDL approval by the U.S. EPA to identify the BMPs the Permittee will use to meet the WLA. To evaluate the performance of these controls, the Permittee shall select and report on at least one of the effectiveness metrics listed in Sections 3.4.A.3 (a–e) annually. This WLA Compliance and BMP Effectiveness Report shall be included as an attachment to the annual report.

2. Analytical Monitoring for WLA

   Monitoring for a parameter with a WLA established for the MS4 shall be performed at a representative outfall or field screening point selected by the Permittee for discharge to the receiving water with a TMDL.

a. Monitoring for the TMDL parameter(s) shall be conducted throughout the permit term and the monitoring frequency shall be at least once per wet season to align with the Seasonal Monitoring requirements in Table 3.

[A.A.C. R18-9-B906 and A.A.C. R18-9-A905(A)(1)(j) incorporates by reference 40 CFR 122.62(a) and (b)]

b. If the outfall or representative field screening point selected for monitoring is not listed in Table 2, the Permittee shall notify ADEQ within 30 days of the selection. The permit may be reopened and modified to include additional conditions to ensure the receiving water with a TMDL is protected.

3.5 SWQS Excursion Notification

[A.A.C. R18-9-A905(A)(3)(a) incorporates by reference 40 CFR 122.41(h)]

A. If the permittee has credible, site specific information, that is not required to be reported in Section 6.1 (Discharge Monitoring Report), that a discharge from their MS4 to a protected surface water is causing or contributing to a receiving water impairment due to SWQS excursions, the Permittee shall notify ADEQ within 30 calendar days of becoming aware of the contributing pollutant discharge. All notifications in this section must be submitted to ADEQ at stormwatercompliance@azdeq.gov.

[A.A.C. R18-9-A905(A)(3)(a) incorporates by reference 40 CFR 122.41(d)]

B. If a discharge to a protected surface water containing pollutants above an applicable SWQS persists and the Permittee has not modified existing control measures or implemented additional control measures to reduce the discharge of pollutants to the maximum extent practicable, this permit may be reopened and modified as provided in A.A.C R18-9-B906 and 40 CFR 122.62.

4.0 STORMWATER MANAGEMENT PROGRAM (SWMP)

[40 CFR 122.26(d)(2)(iv) incorporated by reference in A.A.C. R18-9-A905]

4.1 Program Implementation

The Permittee shall continue to implement and maintain a Stormwater Management Program (SWMP) designed to reduce the discharge of pollutants, from the MS4 to protected surface waters, to the maximum extent practicable to protect water quality and satisfy applicable SWQS. The Permittee shall review the SWMP at least annually to modify or revise, as needed, existing elements and/or develop new elements to comply with requirements for authorized stormwater discharges from the MS4.

A. At a minimum, the Permittee must include the following information in its SWMP document within 24 months from the effective date of this Permit:

1. Ordinances, or other regulatory mechanisms, providing the legal authority necessary to implement and enforce the requirements of this Permit;

2. Reference to written procedures describing how the Permittee will implement provisions described in Sections 4.2-4.8.

B. The Permittee shall keep records demonstrating compliance with the requirements of this permit for at least three years from the date this permit coverage expires or the permit authorization is terminated. Refer to Section 8.11 for additional detail on records retention requirements.

4.2 Public Education and Outreach

[40 CFR 122.26(d)(2)(iv)(B)(6) incorporated by reference in A.A.C. R18-9-A905]

The Permittee shall implement on-going, planned outreach activities to educate the community (developers, contractors, homeowners, public, etc.) on stormwater management practices, impacts to stormwater discharges, and steps that can be taken to reduce stormwater pollution.

A. The Permittee shall provide outreach and education to the public on the stormwater program issues and requirements. The SWMP shall include details of the outreach strategy that shall be implemented during the permit term.

1. At a minimum, the Permittee shall provide public education and outreach to at least one target community group and focus its efforts on conveying relevant messages using one 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 effort on one or more target community group(s) and topic(s) most relevant to the MS4.

   a. *Qualifying Community Target Groups:*

      i. General Public that may impact the MS4,

      ii. Homeowners and Residential Renters Served by the MS4,

      iii. Representatives and/or members of Homeowners Associations (HOAs) Served by the MS4, and

      iv. Students, Faculty, Facility Maintenance Staff, and/or Administrators of Schools Served by the MS4.

   b. *Qualifying 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 how 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 the MS4;

      viii. Proper management and disposal of used oil; and

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

2. At a minimum, the Permittee shall provide business sector education and outreach to at least one professional target group and focus its efforts on conveying relevant messages

using one 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 or more target professional group(s) and topic(s) most relevant to the MS4.

a. *Qualifying Professional Target Groups:*

i. Professional Development Project Proponents that may impact the MS4 (e.g. property developers, development design professionals, and land use planners)

ii. Construction Site Operators that may impact the MS4 (e.g. site superintendents or project managers),

iii. Commercial or Industrial Businesses within the MS4 service area, or

iv. Other Professionals Associated with Stormwater Pollutant Sources that may impact the MS4 (e.g. landscape professionals, pressure washing professionals, or pool maintenance professionals).

b. *Qualifying Topics:*

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

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

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

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

v. 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;

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

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

B. Data Evaluation

The Permittee shall document actions that demonstrate how it encourages community members to reduce pollutant discharges to the MS4 to the maximum extent practicable. Qualifying activities may include, but are not limited to, investments, infrastructure improvements, trainings, accessibility, and/or community events and must be presented in both tables and graphs with a brief description of how the Permittee's progress, if any, compares to previous years. This evaluation shall be updated annually and submitted as an attachment to the annual report.

4.3 Public Involvement and Participation

[40 CFR 122.26(d)(iv) incorporated by reference in A.A.C. R18-9-A905]

The Permittee shall engage the public to effectively convey messages pertaining to stormwater pollution prevention, to undertake group activities that highlight stormwater pollution, and contribute volunteer community actions to restore and protect Arizona's protected surface waters. The SWMP shall include details of the public involvement and participation strategy.

A. The Permittee shall create and support opportunities for the public to participate in the implementation of stormwater pollution prevention efforts. Examples include but are not limited to:

1. Stream clean-ups,
2. Storm drain stenciling,
3. Volunteer monitoring,
4. Disposal of household hazardous waste,
5. Educational activities, and
6. Facilitation of Adopt-A-Wash, Adopt-A-Park, and Adopt-A-Street litter control activities.

B. 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. See Section 4.4 Illicit Discharge Detection and Elimination (IDDE).

C. The current SWMP and latest annual report shall be posted on the Permittee's website no later than October 30th each year of the permit term which is thirty days following the September 30th due date of the annual report.

4.4 Illicit Discharge Detection and Elimination (IDDE) Program

[40 CFR 122.26(d)(2)(iv)(B) incorporated by reference in A.A.C. R18-9-A905]

A. The Permittee shall implement a program to detect, investigate, and eliminate illicit non-stormwater discharges, including dumping and spills, into its MS4. Illicit discharge means any discharge to an MS4 that is not composed entirely of stormwater except discharges pursuant to a NPDES or AZPDES permit, discharges resulting from firefighting activities, and allowable non-stormwater discharges listed in Section 4.4.B.

1. The SWMP shall detail the components and implementation of the Permittee's program designed to prevent, detect, characterize, and eliminate illicit discharges into the MS4.
2. The program shall include procedures for addressing pollutants entering the MS4 from an interconnected MS4.

B. Allowable Non-stormwater Discharges

[40 CFR 122.26(d)(2)(iv)(B)(1) incorporated by reference in A.A.C. R18-9-A905]

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

1. Water line flushing,
2. Landscape irrigation,
3. Diverted stream flows,
4. Rising ground waters,
5. Uncontaminated groundwater infiltration (as defined at 40 CFR 35.2005(b)(20)) to separate storm sewers,
6. Uncontaminated pumped groundwater,
7. Discharges from potable water sources,

8. Foundation drains,
9. Air conditioning condensation,
10. Irrigation water,
11. Springs,
12. Water from crawl space pumps,
13. Footing drains,
14. Lawn watering,
15. Individual residential car washing,
16. Flows from riparian habitats and wetlands,
17. Dechlorinated swimming pool discharges,
18. Street wash water,
19. Discharges or flows from emergency firefighting activities, and
20. Discharges authorized by another NPDES or AZPDES permit.

C. MS4 Areawide Effective IDDE Program Inventory and Mapping

[40 CFR 122.26(d)(1)(iii)(B) incorporated by reference in A.A.C. R18-9-A905; Appendix A to 40 CFR 127]

1. The Permittee shall maintain and update (as necessary) an Effective IDDE Program Inventory that includes the following:
   a. The location of all known MS4 outfalls, or representative field screening points for outfalls, that meet the definition of an "Outfall" as defined under 40 CFR 122.26(b)(9) operated by the Permittee and that discharge within the Permittee's jurisdiction to a protected surface water;
   b. The location of drainage areas contributing to those outfalls;
   c. The location of all Interconnections with other MS4; and
   d. The name, where known to the permittee, of the protected surface water receiving discharge from each of identified outfall.
2. The Effective IDDE Program Inventory shall assign a unique identifier to each outfall as well as distinguish and clearly label the following categories:
   a. Major outfalls, or representative field screening points for outfalls, that meet the definition of a "Major Outfall" as defined under 40 CFR 122.26(b)(5) specifically identified as "Major Outfall;"
   b. Major outfalls, or representative field screening points for outfalls, identified by the Permittee as a "priority" major outfall, per Section 4.4.D.2, through consideration of discharge to an impaired water, Outstanding Arizona Water (OAW), or perennial water or through consideration of illicit discharge history; and
   c. Interconnections with other MS4 specifically identified as "Interconnection."

[40 CFR 122.44(d)(1); 40 CFR 122.26(d)(2)(iv); 40 CFR 122.41(h) incorporates by reference in A.A.C. R18-9-A905(A)]

3. A copy of the updated Effective IDDE Program Inventory must be submitted to ADEQ electronically as an attachment to the annual report for the second year of the permit term in myDEQ and made available for review by the permitting authority upon request as follows:

   a. Geospatial locations as latitude and longitude coordinate pairs in decimal degrees to at least four decimal places (e.g. 32.5312, -111.2146), as applicable, as well as identifiers specified in Section 4.4.C.2 above must be provided in an Excel Spreadsheet or as a Feature Service, Shapefile, or Feature Class file type; and

   b. If the inventory is revised the Permittee shall submit the updated inventory as an attachment to the annual report for that reporting permit year in myDEQ.

   c. All revised Effective IDDE Program Inventory submissions must incorporate the date of revision into the filename using the format YYYY-MM (e.g. 2027-01 for January 2027).

4. A maintained and updated map of the MS4 regulated area must be available for review by the permitting authority upon request.

[Appendix A to 40 CFR 127]

   a. Geospatial locations must be provided as latitude and longitude coordinate pairs in decimal degrees to at least four decimal places (e.g. 32.5312, -111.2146) in an Excel Spreadsheet or as a Feature Service, Shapefile, or Feature Class file type.

   b. A copy of the updated map must be submitted to ADEQ electronically as an attachment to the annual report for the second year of the permit term in myDEQ and made available for review by the permitting authority upon request. If the MS4 regulated area map is revised, the Permittee shall submit the updated map as a GIS-compatible attachment to the annual report for that reporting permit year in myDEQ.

   c. All revised map submissions must incorporate the date of revision into the filename using the format YYYY-MM (e.g. 2027-01 for January 2027).

D. IDDE Inspections and Screening

1. The Permittee shall continue with an ongoing program designed to detect and identify non-stormwater discharges into the Permittee's MS4. Inspections and screening for non-stormwater discharges into the MS4 may be conducted using the *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments, Center for Watershed Protection, October 2004* (available at www.cwp.org); or another method of equal or improved effectiveness.

2. The Permittee shall inspect the following "priority" major outfalls once each year of the permit term:

   a. All major outfalls that discharge to an impaired or an Outstanding Arizona Water (OAW) or other perennial water;

   b. All major outfalls that have been a source of illicit discharge in the past five years (unless the source has been eliminated or has been shown not to be significant source of pollutants); and

   c. All major outfalls identified as priority by the Permittee for illicit discharges.

3. The Permittee shall inspect approximately 20% of the remaining (i.e., non-priority) major outfalls each year of the permit term, inspecting all major outfalls at least once within the five-year term of this permit. To demonstrate adequate progress to meet the inspection requirement, the Permittee shall maintain a cumulative inspection rate that averages approximately 20% annually (e.g. 22% by the end of Year 1 or 78% by the end of Year 4), provided the final requirement is met by the end of the permit term. The Permittee shall document inspections, findings, and report evidence of non-stormwater flows, and follow-up actions taken by the Permittee.
4. The Permittee shall conduct ongoing dry weather field screening of major outfalls. Field screening includes:
    a. Visual inspection for flow, trash, suds, odors, etc.
    b. Field sampling, when significant flow is observed for chemical indicator parameters.
    c. Re-inspection and sampling within 24 hours, if flow is still present.

E. IDDE Investigation Timelines

1. The Permittee shall immediately respond to all reports of illicit discharges which constitute a threat to human health or the environment.
2. The Permittee shall investigate (or refer to the appropriate agency with authority to act) within five business days for at least 90% of all reports of illicit discharges to the Permittee's MS4 that may reach a protected surface water.

F. IDDE Elimination

1. The Permittee shall initiate corrective actions and/or enforcement mechanisms toward elimination of an illicit discharge detected within 60 calendar days of identification of the source. However, sources that are fully investigated and determined to not cause or contribute to an excursion of a SWQS are not subject to these timeframes. In this event, the Permittee shall maintain documentation of the investigation, sampling, and reasoning for determination that such discharges do not contain significant levels of pollutants.

G. IDDE Compliance Activities and Enforcement

1. The Permittee shall follow enforcement procedures that incorporate escalating actions for violations of municipal stormwater requirements, ordinance, or code identified during inspections. The escalated enforcement procedures shall focus on having at least 80% of all cases satisfactorily resolved by halting the illicit discharge within one calendar year from the original enforcement action.

H. Recordkeeping — IDDE Activities Summary

1. The Permittee shall track and maintain records of the activities conducted to meet the requirements of this Section.
2. The Permittee shall submit as part of each annual report an IDDE Activities Summary in tabular format submitted using the Microsoft Excel template file titled MesaMS4_IDDE_Activities_Template.xlsx provided by ADEQ.
    a. The file name shall be MesaMS4_IDDE_Activities_Year where the date reflects the year of the annual report submission. Report the year as four digits (YYYY).
    b. Example file name: MesaMS4_IDDE_Activities_2027 for the Year 1 annual report due on September 30, 2027

3. The required fields for table columns are:
    a. Date incident reported or discovered,
    b. Date of the beginning of your response,
    c. Date of the end of your response,
    d. AZPDES permit number for the MS4,
    e. Pollutant,
    f. Source,
    g. Location where the illicit discharge was verified (address or latitude and longitude),
    h. Outfall ID number and coordinates for the closest downgradient MS4 outfall that may discharge to a protected surface water (if the illicit discharge may reach the outfall),
    i. Did the discharge reach a protected surface water? (yes, no, or unknown), and
    j. Correction method(s).

4.5 Municipal Facilities Pollution Prevention and Good Housekeeping Practices

Some municipally-owned facilities that are included in this section may be permitted under the Industrial Stormwater Non-Mining Multi-Sector General Permit (MSGP) or another AZPDES permit. In those cases, the facility-specific permit coverage shall govern.

[40 CFR 122.26(d)(2)(iv)(A)]

A. Municipal Facilities Inventory

1. The Permittee shall continue to update and maintain at least annually a Municipal Facilities inventory, list, database, map, or other equivalent tracking system of facilities owned and operated by the Permittee that have the potential to discharge pollutants to the MS4. These include the following types of facilities that discharge to the MS4:
    a. Equipment storage and maintenance facilities;
    b. Fleet maintenance facilities (vehicle washing and maintenance, chemical handling, waste storage);
    c. Hazardous waste disposal facilities;
    d. Hazardous waste handling and transfer facilities;
    e. Landfills (active);
    f. Material and waste storage yards and processing facilities, including oil collection facilities;
    g. Publicly Owned Treatment Works (POTWs) and sludge handling areas;
    h. Recycling facilities;
    i. Street repair yards and street maintenance yards; and
    j. Other sites or sources that the Permittee determines may be significant sources of pollutants to the MS4.
2. The Permittee shall continue to use and refine, as needed, a system to review and prioritize the Municipal Facilities Inventory identified in Section 4.5.A.1 to inform inspection scheduling

required in Section 4.5.B and inform implementation of Good Housekeeping Measures required in Section 4.5.C, as applicable. The factors that shall be considered for purposes of inspection prioritization include:

a. Quantity, type, and location of materials used and/or stored at the facility;

b. Potential for exposure to stormwater; and

c. Potential to discharge a substantial pollutant load to the MS4 or to a protected surface water.

d. Facilities that are already covered under the MSGP or another AZPDES permit will be ranked as low priority for consideration under this permit.

3. The Permittee shall submit as part of each annual report the Municipal Facilities Inventory of facilities owned and operated by the Permittee in tabular format submitted as a Microsoft Excel file. The required fields for table columns are:

a. Facility name;

b. Facility location;

c. Facility prioritization ranking determined per Section 4.5.A.2; and

d. Date of most recent inspection per Section 4.5.B.1.

B. Municipal Facility Inspections

1. The Permittee shall ensure that all facilities identified in the Municipal Facilities Inventory required by Section 4.5.A.1 are inspected at least once within the five-year term of this permit.

2. To demonstrate adequate progress to meet the Section 4.5.B.1 requirement, the Permittee shall maintain a cumulative inspection rate that averages approximately 20% annually (e.g. 22% by the end of Year 1 or 78% by the end of Year 4), provided the final requirement is met by the end of the permit term.

C. Municipal Facility Good Housekeeping Measures

1. The Permittee shall implement practices, policies, and procedures to reduce stormwater impacts associated with runoff from all lands owned and operated by the Permittee. Lands owned and operated by the Permittee that discharge to the MS4 include, but are not limited to: parking lots, streets, roads, highways, buildings, parks, road right-of-way, maintenance yards, and stormwater treatment and flow control BMPs/facilities.

The following activities shall be addressed:

a. Pipe, culvert and ditch maintenance and cleaning;

b. Street cleaning;

c. Road repair and resurfacing;

d. Utility installation;

e. Maintaining roadside areas, including vegetation management;

f. Dust control;

g. Application of fertilizers, pesticides, and herbicides according to the instructions for their use, including reducing nutrients and pesticides using alternatives that minimize environmental impacts;

h. Sediment and erosion control;

i. Landscape maintenance and vegetation disposal;

j. Trash and pet waste management; and

k. Building exterior cleaning and maintenance.

D. Municipal Facility Activity Recordkeeping

1. The Permittee shall track and maintain records of the activities conducted to meet the requirements of this Section in accordance with the Arizona State Library Archives & Public Records approved retention schedules.

4.6 Industrial and Commercial Facilities (Non-municipally Owned)

[40 CFR 122.26(d)(2)(iv)(C)]

A. Industrial and Commercial Inventory

1. The Permittee shall maintain an inventory of private commercial and industrial sites that discharge stormwater pollutants to the MS4 in a database, list, map, or other equivalent tracking system. This inventory shall be updated at a minimum annually. Sites that do not expose commercial and industrial activities to stormwater are not required to be on this inventory. The Industrial and Commercial Inventory shall include the following types of facilities that discharge to the MS4:

   a. Industrial facilities identified in 40 CFR 122.26(d)(2)(iv)(C); and

   b. Other industrial and/or commercial sources that the Permittee determines may be significant sources of pollutants to the MS4.

2. Suspected Non-Filer Identification and Reporting for AZPDES MSGP

   The Permittee shall develop a mechanism to identify and document facilities that may be subject to the MSGP and are suspected by the MS4 to have not filed a timely NOI (does not apply to sites with waivers and No Discharge Certificates). See Section 6.4 for reporting requirements and Part 9.0 Definitions: Non-Filer for more information.

   a. Report suspected non-filers to stormwatercompliance@azdeq.gov on a monthly basis.

3. The Permittee shall systematically prioritize the facilities identified in Section 4.6.A.1 for purposes of inspection scheduling to ensure the most significant sources of pollution to the MS4 are given a higher ranking. The factors that shall be considered to prioritize the facilities for inspection include:

   a. Significant source of pollutants, and

   b. Violation history.

4. The Permittee shall submit as part of each annual report the inventory of non-municipally owned industrial and commercial facilities (Industrial and Commercial Inventory) in tabular format submitted as a Microsoft Excel file. The required fields for table columns are at minimum:

   a. Facility name;

   b. Facility location;

   c. Facility prioritization ranking determined per Section 4.6.A.3; and

d. Date of most recent inspection per Section 4.5.B.1.

B. Industrial and Commercial Facility Inspections

1. The Permittee shall ensure that all facilities identified in the Industrial and Commercial Inventory required by Section 4.6.A are inspected at least once within the five-year term of this permit.

2. To satisfy the Section 4.6.B.1 requirement, the Permittee shall inspect 90% of facilities identified in the Industrial and Commercial Inventory by the end of the permit term. To demonstrate adequate progress, the Permittee shall maintain a cumulative inspection rate that averages approximately 20% annually (e.g. 22% by the end of Year 1 or 78% by the end of Year 4), provided the final 90% requirement is met by the end of the permit term.

C. Industrial and Commercial Facility Compliance Activities and Enforcement

1. The Permittee shall implement an effective compliance and enforcement program that incorporates escalating actions for violation of municipal stormwater requirements, ordinance, or code. The Permittee shall achieve the following compliance benchmarks:

a. For violations requiring the highest level of enforcement (as defined in the Permittee's Escalated Enforcement Protocol), the Permittee shall reach a final resolution within the Permittee's legal authority for at least 90% of cases within one calendar year of the initial inspection.

b. The Permittee shall maintain an inventory of violations identified per the Permittee's Escalated Enforcement Protocol. Violations resolution shall be reported as an attachment to the annual report using the Microsoft Excel template file titled MesaMS4_Non_Municipal_EEP_Template.xlsx provided by ADEQ. The file name shall be MesaMS4_Non_Municipal_EEP_Year where the date reflects the year of the annual report submission. Report the year as four digits (YYYY). Example file name: MesaMS4_ Non_Municipal_EEP _2027 for the Year 1 annual report due on September 30, 2027.

c. The required fields for table columns are:

i. Violation unique identifier,

ii. Date of initial inspection identifying the violation or date of discovery,

iii. Highest level of enforcement (yes or no), and

iv. Date of final resolution.

D. Industrial and Commercial Facility Activity Reporting and Recordkeeping

1. The Permittee shall track and maintain records of the activities conducted to meet the requirements of this Section. Refer to Section 8.11 "Standard Conditions" for records retention requirements.

4.7 Construction Sites

[40 CFR 122.26(d)(2)(iv)(A)(2)]

A. Construction Project Inventory

1. The Permittee shall develop a comprehensive Construction Project Inventory of construction projects that will result in land disturbance of one acre or more (including those less than one acre, but are part of a larger common plan of development) that discharge to the MS4.

2. The Permittee shall annually update its Construction Project Inventory (e.g. private and municipal) of construction sites.

3. Suspected Non-Filer Identification and Reporting for AZPDES Construction General Permit (CGP)

   The Permittee shall develop a mechanism to identify and document facilities that may be subject to the CGP and are suspected by the MS4 to have not filed a timely NOI (does not apply to sites with waivers or No Discharge Certificates). See Section 6.4 for reporting requirements and Part 9.0 Definitions: Non-Filer for more information.

   a. Report suspected non-filers to stormwatercompliance@azdeq.gov on a monthly basis.

B. Construction Site Plan Review

1. For construction projects that will result in land disturbance of one acre or more (including those less than one acre, but are part of a larger common plan of development) that discharge to the MS4, the Permittee shall review at least 80% of plans for new development and redevelopment (such as grading and drainage plans) to ensure the minimum requirements for erosion control, sediment control, and stormwater pollution prevention are addressed in each plan.

C. Construction Site Inspections

1. The Permittee shall continue to use and refine, as needed, a system to review and prioritize the Construction Project Inventory identified in Section 4.7.A to inform inspection scheduling.

2. The Permittee shall inspect construction sites identified in the Construction Project Inventory in Section 4.7.A at least one time every three months for highest priority sites and at least one time every six months for lowest priority sites, based on the prioritization schedule requirements in Section 4.7.C.1.

3. The Permittee shall conduct follow-up actions of construction sites to ensure stormwater deficiencies/concerns/non-compliance identified as a result of a routine inspection were corrected.

D. Construction Site Stormwater Control Measures

1. The Permittee shall continue to require that plans include erosion and sediment controls protective of water quality which includes erosion and sediment control BMPs such as:

   a. Maximum fill and cut slopes;

   b. Maximum bench heights and widths;

   c. Types of allowable fill materials;

   d. Fill compaction and requirements;

   e. Setbacks of fill slopes from property boundaries;

   f. Treatment of fill slopes and other slopes to prevent erosion from stormwater runoff;

   g. Requirements for maximum fill/cut slopes for drainage channels;

   h. Terracing drainage requirements, including erosion controls;

   i. Subsurface drainage controls for stability; and

   j. Drainage way erosion control provisions.

E. Compliance Activities and Enforcement

1. The Permittee shall implement an effective compliance and enforcement program that incorporates escalating actions for violations of municipal stormwater requirements, ordinance, or code for construction site stormwater pollution management. The effective compliance and enforcement program that incorporates escalating actions for violation of municipal stormwater requirements, ordinance, or code. shall focus on having the highest level of enforcement action resolved for at least 90% of cases within one year of the initial inspection/violation.

4.8 Post-Construction

A. Post-Construction Controls

[40 CFR 122.26(d)(2)(iv)(D) and CWA Section 402(p)(3)(B)(iii)]

1. The Permittee shall implement a program to control stormwater discharges from areas of new development and redevelopment projects one acre or greater discharging to the MS4 after construction is complete. This program shall apply to applications for public and private development or redevelopment.

   a. The program shall require all applications for new development and redevelopment projects one acre or greater discharging to the MS4 have controls in place that will reduce stormwater pollution to the maximum extent practicable. Adequate post-construction BMPs, ordinances and policies are presumptively met if the Permittee follows the current "City of Mesa Engineering and Design Standards." The Permittee may also implement a program of equivalent efficacy, provided that such a program's adequacy is documented by the Permittee prior to discharge. This includes an update to the existing Standards Manual.

   b. The SWMP shall describe the site design strategies, control measures, and other practices deemed necessary by the Permittee to maintain or improve pre-development hydrology.

B. Compliance Activities and Enforcement

1. The Permittee shall continue to implement an inventory, inspection, maintenance, and tracking program for post-construction stormwater BMPs.

2. The Permittee shall continue to implement a post-construction program that includes inspection of sites identified in the Construction Project Inventory described in Section 4.7.A for post-construction controls in Section 4.8.A.1 following construction completion.

   a. Stormwater facilities and BMPs built after June 30, 2022 must meet the required standards in Section 4.8.A.1.a. Achievement of the BMP's design standard for detention, retention, or treatment shall constitute compliance.

   b. Data Evaluation

   The Permittee shall document its oversight of post-construction stormwater BMPs for proper completion and maintenance. This documentation must include compliance and enforcement data presented in tables and/or graphs. This evaluation shall be updated annually and submitted as an attachment to the annual report.

3. The Permittee shall document non-compliance with post-construction stormwater BMPs in Section 4.8.B.2 and follow-up actions taken by the Permittee to achieve compliance. The Permittee shall assign maintenance responsibility through enforceable means such as ordinances, policies, maintenance agreements, or easements.

5.0 MONITORING REQUIREMENTS

[40 CFR 122.44(i)]

5.1 Monitoring and Assessment

[40 CFR 122.26(d)(2)(iii)]

A. The Permittee shall conduct stormwater monitoring as required by Part 5.0 of this permit. Stormwater monitoring data shall be used, at a minimum, for the following purposes:

1. To characterize stormwater quality and identify stormwater pollutants;
2. To detect and eliminate illicit discharges; and
3. To evaluate the overall effectiveness of control measures and the SWMP as a whole in reducing the discharge of pollutants to the maximum extent practicable

5.2 Wet Weather Monitoring

[40 CFR 122.26(d)(2)(iii) and 40 CFR 122.21(g)(7)(ii)]

A. Qualifying Storm Event

1. A qualifying storm event is rainfall in the amount of 0.1 inches or more and resulting in a discharge. Stormwater samples shall be collected from qualifying storm events that are at least 72 hours (3 calendar days) after a previous qualifying storm event.
2. The Permittee shall conduct wet weather analytical monitoring for qualifying storm events. 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 extent practicable. Discrete samples shall be collected during the first 30 minutes of discharge. If collection during the first 30 minutes is not practicable, samples must be collected as soon as possible thereafter, but in no case shall discrete sample collection be performed more than 3 hours after the start of the discharge. Flow-proportional composite samples shall be collected within the first three hours following the beginning of discharge.

B. Storm Event Records

Each season the Permittee shall record qualifying storm events (0.1 inches or more and resulting in a discharge) occurring at each monitoring location until all samples required to be collected during that season are obtained from the outfall or field screening point.

1. Storm events monitoring shall be reported using the Microsoft Excel template file titled MesaMS4_Storm_Event_Record_Template.xlsx provided by ADEQ.
    a. The file name shall be MesaMS4_Storm_Event_Record_Year_Month where the date reflects the end of the wet season. Report the year as four digits (YYYY) and the month as two digits (mm).
    b. Example storm event record file names:
        i. MesaMS4_Storm_Event_Record__2026_10 for the June 1, 2026 – October 31, 2026 wet season
        ii. MesaMS4_Storm_Event_Record__2027_05 for the November 1, 2026 – May 31, 2027 wet season
2. The Permittee shall report the storm event data as an attachment with the DMR, including the following information:

a. Date of each qualifying storm event;

b. Amount of rainfall (in inches of rainfall) in the drainage area for each stormwater monitoring location identified in Table 2;

c. Total discharge flow (in gallons) for each stormwater monitoring location identified in Table 2

d. Indication if the stormwater sample was collected within the allowed timeframe specified in 5.2.A;

i. Discrete samples shall be collected during the first 30 minutes of discharge. If collection during the first 30 minutes is not practicable, samples must be collected as soon as possible thereafter, but in no case shall discrete sample collection be performed more than three hours after the start of the discharge.

ii. Flow-proportional composite samples shall be collected within the first three hours of discharge.

e. Indication of whether or not a stormwater sample was collected, and if not, indicate applicable NODI (No Discharge) code in myDEQ for explanation of what prevented sampling; and

f. Indication of whether the first flush (first 30 minutes of storm event discharge) was captured.

C. Stormwater Sampling

1. Sample Collection Location

The Permittee shall sample stormwater discharges from the MS4 to protected surface waters at the monitoring outfalls or field screening point specified in Table 2 prior to mixing with receiving waters or just prior to discharge.

2. Sample Collection Timing

Stormwater samples shall be collected from the first qualifying storm event of each wet season, and subsequent qualifying storm events, as necessary, to complete the monitoring requirements at each monitoring outfall or field screening point as required in Table 3 and Table 4. If sampling of subsequent storm events is necessary to complete the requisite monitoring, stormwater samples shall be collected from qualifying storm events that are at least 72 hours (3 calendar days) after a previous qualifying storm event. Wet seasons, for the purposes of monitoring, are defined in Table 1.

Each time samples are collected for a stormwater discharge from a monitoring outfall or field screening point, a DMR shall be submitted within 30 calendar days of receiving each certified laboratory report. More than one DMR may be submitted for samples collected during a wet season to complete the required monitoring of all parameters for all monitoring outfalls or field screening point.

Table 1. Stormwater Monitoring Wet Seasons.

Season Name	Start Date	End Date
Summer Wet Season	June 01	October 31
Winter Wet Season	November 01	May 31

D. Monitoring Frequency

1. Monitoring shall be performed as specified in Table 3 and Table 4 for all parameters listed at each monitoring outfall or field screening point listed in Table 2.

2. Seasonal Monitoring

   The Permittee shall sample stormwater discharges at least once every wet season (summer and winter) of the permit term to satisfy the Seasonal Monitoring requirement detailed in Table 3.

3. Characterization Monitoring

   The Permittee shall sample stormwater discharges one time during one winter wet season and one summer wet season within the first three years of the permit term to satisfy the Characterization Monitoring requirement detailed in Table 4.

   a. If the required Characterization Monitoring cannot be completed within the three-year period, the Permittee must submit a written request for an extension.

   b. An extension request must be submitted as an attachment to the third year DMR and shall include a justification for the delay. To request an extension email ADEQ at stormwatercompliance@azdeq.gov. The email shall include the permit number, LTF number, and identify the permittee as a Phase I MS4. The justification for the extension shall be included in the body of the email.

   c. If an extension is approved, Characterization Monitoring shall be completed within the five-year permit term.

E. Monitoring Locations

The Permittee shall monitor stormwater discharges as prescribed in this section at each of the monitoring outfalls or field screening point specified in Table 2.

Table 2. Required Stormwater Monitoring Outfalls and Field Screening Point.

Monitoring Point ID	Latitude	Longitude	Location in Decimal Degrees
SS-US60	33°23’15.7056” N	111° 41’ 39.5088” W	33.38769613, -111.694308
AS-US60	33° 23’ 12.5988” N	111° 51’ 27.7884” W	33.38683291, -111.857719
UN-EMF	33° 25’ 21.54” N	111° 43’ 28.6572” W	33.42265024, -111.724627
54-EMF	33° 24’ 40.4748” N	111° 42’ 53.7516” W	33.41124285, -111.714931
FF-ACES	33° 27’ 16.5708” N	111° 43’ 45.3” W	33.45460297, -111.72925

F. Adverse 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, including technical malfunctions, shall be reported to ADEQ with the DMRs. The Permittee shall continue to monitor subsequent storm events during the monitoring season and perform stormwater sampling of a qualifying storm event if another occurs during the same wet season. When adverse conditions prevent the collection of an analytical sample for required monitoring within the specified monitoring

timeframe, the permittee shall report a NODI code T - "Environmental Conditions – Monitoring Not Possible" on the DMR. The Permittee shall return to monitoring frequencies prescribed in Table 3 and Table 4 after adverse conditions abate. Required sampling during a monitoring period shall be performed once adverse conditions abate.

G. Stormwater Monitoring Requirements

The parameters in Table 3 shall be monitored at minimum. Any additional parameters may be monitored as determined by the Permittee. All parameters monitored must be reported to ADEQ through the DMRs.

Table 3. Seasonal Monitoring.

Seasonal Monitoring Required Every Wet Season (Two wet seasons per calendar year)			
Parameter	**Units**	**Monitoring Frequency (1)**	**Monitoring Type**
Conventional Parameters			
Average Flow Rate	Gallons per Minute (gpm)	1x/sampling event	Continuous Flow Meter
pH	S.U.	1x/ wet season	Discrete (2)
Hardness, Total as $CaCO_3$ (4)	mg/L	1x/ wet season	Composite (3)
Temperature	°C	1x/ wet season	Discrete
Total Suspended Solids (TSS)	mg/L	1x/ wet season	Composite
Microbiological			
Escherichia coli (*E. coli*)	cfu/100 mL or MPN	1x/ wet season	Discrete
Metals and Other Inorganics (5)			
Arsenic	µg/L	1x/ wet season	Composite
Chromium, Total (6)	µg/L	1x/ wet season	Composite
Chromium VI, Dissolved (6)	µg/L	1x/ wet season	Discrete
Copper (4)	µg/L	1x/ wet season	Composite
Lead (4)	µg/L	1x/ wet season	Composite
Selenium	µg/L	1x/ wet season	Composite
Zinc (4)	µg/L	1x/ wet season	Composite
Nutrients			
Nitrate plus Nitrite as N	mg/L	1x/ wet season	Composite
Ammonia as N	mg/L	1x/ wet season	Composite
Total Kjeldahl Nitrogen (TKN) as N	mg/L	1x/ wet season	Composite
Total Phosphorus	mg/L	1x/ wet season	Composite
Organic Pollutants			
Total Oil and Grease	mg/L	1x/ wet season	Discrete

Footnotes:

1. Monitoring for all parameters listed in Table 3 shall be performed once per wet season.
2. Discrete samples shall be collected manually. The Permittee shall attempt to include the "first flush" (first 30 minutes of stormwater discharge) of a qualifying storm event whenever possible to do so. Discrete samples shall be collected during the first 30 minutes of discharge. If collection during the first 30 minutes is not practicable, samples must be collected as soon as possible thereafter, but in no case shall discrete sample collection be performed more than 3 hours after the start of the discharge.

3. All composite samples shall be flow-proportional and may be collected with a continuous sampler or as a combination of multiple discrete samples (aliquots). Only one analysis of the composite of aliquots shall be performed. The Permittee shall attempt to include the "first flush" (first 30 minutes of stormwater discharge) of a qualifying storm event whenever possible to do so. Flow-proportional composite samples shall be collected within the first three hours of discharge.
4. Water quality standards for hardness-dependent metals are calculated using the hardness measurement for the stormwater discharge or the receiving water pursuant to A.A.C. R18-11 Appendix A. Either the stormwater discharge (effluent-dependent or ephemeral receiving water) or the receiving water (perennial receiving water) hardness must be sampled concurrently with discharge samples for these metals.
5. When analyzing for metals, the Permittee shall assume a 1:1 total to dissolved ratio for purposes of reporting and comparison with SWQS. Alternatively, the Permittee may test for dissolved metals, if appropriate field filtering is completed.
6. If a dissolved (or total) chromium test result for discharge to a protected receiving water with an aquatic and wildlife designated use exceeds the applicable surface water quality standard for chromium VI, the Permittee must sample for dissolved chromium VI for the remainder of the permit term for that monitoring outfall or field screening point until two consecutive test results meet the applicable water quality standard. See Section 5.3.C.4 for more information.

Table 4. Characterization Monitoring.

Characterization Monitoring (Summer and Winter)			
Parameter	**Units**	**Monitoring Frequency (1)**	**Type**
Metals and Other Inorganics (4)			
Antimony	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite (2)
Barium	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Beryllium	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Cadmium (5)	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Hardness, Total as $CaCO_3$ (5)	mg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Mercury	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete (3)
Nickel (5)	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Silver (5)	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Thallium	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Cyanide	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
Volatile Organic Compounds (VOCs)			
Acrolein	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
Acrylonitrile	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
Benzene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
Bromoform	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
Carbon tetrachloride	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
Chlorobenzene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
Chlorodibromomethane (Dibromochloromethane)	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete

Characterization Monitoring (Summer and Winter)			
Parameter	**Units**	**Monitoring Frequency (1)**	**Type**
Chloroethane (Ethyl Chloride)	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
2-chloroethylvinyl ether	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
Chloroform	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
Bromodichloromethane (Dichlorobromomethane)	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
1,2-dichlorobenzene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
1,3-dichlorobenzene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
1,4-dichlorobenzene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
1,1-dichloroethane	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
1,1-dichloroethylene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
1,2-dichloroethane	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
1,3-dichloropropylene (1,3-dichloropropene)	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
1,2-Dichloropropane	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
Ethylbenzene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
Bromomethane (Methyl bromide)	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
Chloromethane (Methyl chloride)	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
Methylene chloride (Dichloromethane)	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
Styrene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
1,1,2,2-tetrachloroethane	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
Tetrachloroethylene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
Toluene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
1,2-trans-dichloroethylene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
1,1,1-trichloroethane	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
1,1,2-trichloroethane	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
Trichloroethylene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
Vinyl chloride	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
Xylenes, Total	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Discrete
Semi-VOCs - Acid Extractable			
2-chlorophenol	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
2,4-dichlorophenol	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
2,4-dimethylphenol	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
4,6-dinitro-o-cresol (4,6-dinitro-2-methyl phenol or 2-methyl-4,6-dinitro phenol)	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
2,4-dinitrophenol	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
2-nitrophenol	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
4-nitrophenol	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
p-chloro-m-cresol (4-chloro-3-methyl phenol)	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite

Characterization Monitoring (Summer and Winter)			
Parameter	**Units**	**Monitoring Frequency (1)**	**Type**
Pentachlorophenol	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Phenol	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
2,4,6-trichlorophenol	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Semi-VOCs – Base/Neutrals			
Acenaphthene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Acenaphthylene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Anthracene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Benzo(a)anthracene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Benzo(a)pyrene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
3,4 Benzofluoranthene (Benzo(b)fluoranthene)	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Benzo(g,h,i)perylene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Benzo(k)fluoranthene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Bis (2-Chloroethyl) Ether	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Bis (2-Ethylhexyl) Phthalate	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
4-Bromophenyl Phenyl Ether	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Butyl benzyl phthalate	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Chrysene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Dibenz(a,h)anthracene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
3,3'-dichlorobenzidine	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Benzidine	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Diethyl phthalate	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Dimethyl phthalate	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Di-n-butyl phthalate	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
2,4-dinitrotoluene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
2,6-dinitrotoluene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Di-n-octyl phthalate	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
1,2-diphenylhydrazine	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Fluoranthene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Fluorene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Hexachlorobenzene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Hexachlorobutadiene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Hexachlorocyclopentadiene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Hexachloroethane	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Indeno(1,2,3-cd) pyrene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Isophorone	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Naphthalene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Nitrobenzene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
N-nitrosodimethylamine	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
N-nitrosodi-n-propylamine	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
N-nitrosodiphenylamine	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite

Characterization Monitoring (Summer and Winter)			
Parameter	**Units**	**Monitoring Frequency (1)**	**Type**
Phenanthrene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Pyrene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
1,2,4-trichlorobenzene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Pesticides, Herbicides, and Other Organics			
Aldrin	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Hexachlorocyclohexane alpha (Alpha-BHC)	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Hexachlorocyclohexane beta (Beta-BHC)	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Hexachlorocyclohexane gamma (Gamma-BHC or Lindane)	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Hexachlorocyclohexane delta (Delta-BHC)	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Carbaryl	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Chlorpyrifos	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Chlordane	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
4,4'-DDT	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
4,4'-DDE	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
4,4'-DDD	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Diazinon	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Dieldrin	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Alpha-endosulfan (Endosulfan I)	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Beta-endosulfan (Endosulfan (II)	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Endosulfan sulfate	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Endrin	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Endrin aldehyde	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Heptachlor	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Heptachlor epoxide	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
PCB-1242	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
PCB-1254	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
PCB-1221	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
PCB-1232	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
PCB-1248	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
PCB-1260	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
PCB-1016	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
2,3,7,8-TCDD (Dioxin)	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite
Toxaphene	µg/L	1x / Permit Term (1 Summer & 1 Winter Wet Season)	Composite

Footnotes:

1. Monitoring for all parameters listed in Table 4 shall be performed once per permit term for one summer wet season and one winter wet season resulting in two test results to report on DMRs for each monitoring point/parameter.

2. All composite samples shall be flow-proportional and may be collected with a continuous sampler or as a combination of multiple discrete samples (aliquots). Only one analysis of the composite of aliquots shall be performed. The Permittee shall attempt to include the "first flush" (first 30 minutes of stormwater discharge) of a qualifying storm event whenever possible to do so. Flow-proportional composite samples shall be collected within the first three hours of discharge.
3. Discrete samples shall be collected manually. The Permittee shall attempt to include the "first flush" (first 30 minutes of stormwater discharge) of a qualifying storm event whenever possible to do so. Discrete samples shall be collected during the first 30 minutes of discharge. If collection during the first 30 minutes is not practicable, samples must be collected as soon as possible thereafter, but in no case shall discrete sample collection be performed more than 3 hours after the start of the discharge.
4. When analyzing for metals, the Permittee shall assume a 1:1 total to dissolved ratio for purposes of reporting and comparison with SWQS. Alternatively, the Permittee may test for dissolved metals, if appropriate field filtering is completed.
5. Water quality standards for hardness-dependent metals are calculated using the hardness measurement for the stormwater discharge or the receiving water pursuant to A.A.C. R18-11 Appendix A. Either the stormwater discharge (effluent-dependent or ephemeral receiving water) or the receiving water (perennial receiving water) hardness must be sampled concurrently with discharge samples for these metals.

5.3 Sample Collection and Analysis

[40 CFR 136]

The Permittee is responsible for the quality and accuracy of all data required under this permit.

A. Quality Assurance (QA) Manual

The Permittee shall maintain QA Manual that describes the sample collection and analyzes processes. If the Permittee collects samples or conducts sample analysis in-house, the Permittee shall develop a QA Manual that addresses these activities. If a third party collects samples or conducts sample analysis on behalf of the Permittee, the Permittee shall obtain a copy of the applicable QA procedures. The QA Manual shall be available for review by ADEQ upon request. The QA Manual shall be updated within the first year of the permit term and as necessary thereafter to reflect current conditions, and shall describe the following:

1. Project management including:
    a. Roles and responsibilities of the participants;
    b. Qualifications of persons collecting samples;
    c. Purpose of sample collection and sample frequency;
    d. When and where samples will be collected;
    e. How samples will be collected;
    f. Matrix to be sampled;
    g. The analytes or compounds being measured;
    h. Applicable surface water quality standards that are established at the time this Permit becomes effective;

i. Laboratories that will perform analyses; and

j. Any field tests to be conducted (detail methods and specify equipment, including a description of any needed calibrations).

2. Sample collection procedures including:

a. Equipment used;

b. Type and number of samples to be collected including QA/QC (Quality Assurance/Quality Control) samples (i.e., background samples, duplicates, and equipment or field banks);

c. Types, sizes, and number of sample bottles needed;

d. Preservatives and holding times for the samples; and

e. Chain of custody procedures.

3. Specification of approved analytical method(s) including:

a. Limits of Detection (LOD) and Limits of Quantitation (LOQs);

b. Required quality control (QC) results to be reported (e.g., matrix spike recoveries, duplicate relative percent differences, blank contamination, laboratory control sample recoveries, surrogate spike recoveries, etc.) and acceptance criteria; and

c. Corrective actions to be taken by the Permittee or the laboratory as a result of problems identified during QC checks.

4. How the Permittee will perform data review; complete DMRs and records used to report results to ADEQ; resolve data quality issues; and identify limitations on the use of the data.

B. Sample Collection

Sample collection, preservation and handling shall be performed as described in 40 CFR 136, or by procedures referenced in A.R.S. Title 9, Chapter 14 of the Arizona Department of Health Services (ADHS) Laboratory Licensure rules. The Permittee shall outline the proper procedures in the QA Manual, and samples taken for this permit must conform to these procedures whether collection and handling is performed directly by the Permittee or contracted to a third party.

C. Analytical Requirements

[A.A.C. R18-11-111]

1. The Permittee shall use a laboratory that is licensed by the ADHS Office of Laboratory Licensure and Certifications that has demonstrated proficiency within the last 12 months under A.A.C. R9-14-609, for each parameter to be sampled under this permit. However, this requirement does not apply to parameters which require analysis at the time of sample collection in accordance with A.R.S. 36-495.02(A)(3). These parameters (flow, dissolved oxygen, pH, temperature, and total residual chlorine) may be performed by the Permittee (including contractors retained by City of Mesa) utilizing instrumentation appropriate for the analyses or measurements.

2. The Permittee shall use analytical methods prescribed in A.A.C. R9-14-610, 40 CFR 136.3, or an alternative analytical method approved under A.A.C. R9-14-610(C) and is sufficiently sensitive in accordance with 40 CFR 136.1(c).

a. The Permittee shall use approved analytical methods with a Limit of Quantitation (LOQ) that is lower than the most stringent surface water quality standard or limit applicable to

the receiving water for the stormwater discharge. If all methods have LOQs higher than the applicable water quality criteria, the Permittee shall use the approved analytical method with the lowest method detection limit (MDL) or minimum level (ML). If a published MDL or ML is not available see Part 9.0 Definitions: Minimum Level for other ways to determine ML.

b. An approved test method is sufficiently sensitive where:

i. The method ML is at or below the level of the applicable water quality criterion for the measured pollutant or pollutant parameter; or

ii. The method ML exceeds the applicable water quality criterion, but the amount of the pollutant or pollutant parameter in a facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter; or

iii. The method has the lowest ML of the analytical methods approved under 40 CFR part 136 or required under 40 CFR chapter I, subchapter N or O for the measured pollutant or pollutant parameter.

c. The permittee shall use (and ensure that the laboratory uses) a standard calibration curve when applicable to the method, where the lowest standard point is equal to or less than the LOQ.

3. For results to be considered valid, all analytical work, including those tests conducted by the permittee at the time of sampling, shall meet quality control standards specified in the approved methods.

4. Chromium VI Monitoring - If a dissolved chromium test result for discharge to a protected receiving water with an aquatic and wildlife designated use exceeds the applicable threshold value, the Permittee must sample at that monitoring outfall or field screening point for dissolved chromium VI for the remainder of the permit until two consecutive test results meet the applicable water quality standard. If the Permittee instead only samples for total chromium, the same threshold values apply for total chromium test results. If chromium test results remain at or below the applicable threshold value, analysis for chromium VI is not required and the Permittee may enter NODI 9 (Conditional Monitoring — Not Required This Period) on the DMR for the monitoring point. The threshold values are as follows: 16 ug/L for aquatic and wildlife (cold water), aquatic and wildlife (warm water), and aquatic and wildlife (effluent-dependent water); 34 ug/L for aquatic and wildlife (ephemeral). See Table 3 Seasonal Monitoring for additional detail.

6.0 REPORTING REQUIREMENTS

[40 CFR 122.41(l)(4); 40 CFR 127]

6.1 Discharge Monitoring Report (DMR)

Each time samples are collected for a stormwater discharge from a monitoring outfall or field screening point, a DMR shall be submitted within 30 calendar days of receiving each certified laboratory report. More than one DMR may be submitted to complete the required monitoring of all parameters for all monitoring outfalls or field screening point during a specified monitoring period. The Permittee shall electronically submit all Discharge Monitoring Reports (DMRs) and required attachments via the myDEQ portal. The reports produced during a monitoring period are required to be electronically submitted with the DMR and include, but are not limited to, the following:

A. Original copies of certified laboratory reports,

B. Original copies of bench sheets or similar documentation for field testing parameters,

C. Storm Event Records, and

D. For all field testing, or if the information below is not included on the laboratory reports, the permittee shall attach a bench sheet or similar documentation to each DMR that includes, for all analytical results during the reporting period the following:

1. The analytical result;
2. The number or title of the approved analytical method, preparation and analytical procedure utilized by the field personnel or laboratory, and the LOD and LOQ for the analytical method for the parameter; and
3. Any applicable data qualifiers using the most current revision of the Arizona Data Qualifiers.

Submission Deadlines for "No Data" DMR

If no sampling data is available for a monitoring outfall or field screening point, either due to a lack of discharge from a qualifying storm event or another valid exemption (such as adverse conditions), the DMR shall be submitted no later than the 30th day of the month following the end of the wet season as shown in Table 5.

Table 5. Submission Deadlines for Seasonal "No Data" DMR.

Wet Season	DMR Submission Deadline
Summer	November 30th
Winter	June 30th

6.2 Annual Report

The Permittee shall submit the annual report by September 30th each year of the permit term. The annual report must be completed and submitted using the myDEQ electronic portal provided by ADEQ. The reporting period for the annual report is July 1 through June 30.

6.3 Renewal Application

[A.A.C. R18-9-B904(B); 40 CFR 122.21(d)(2)]

The Permittee shall complete the Phase I MS4 renewal application supplied by ADEQ. The application must be submitted to ADEQ as an attachment to the 4th year annual report using the myDEQ electronic portal provided by ADEQ. This permit renewal application submission deadline satisfies the duty to reapply requirement at least 180 days before the permit expiration date. See Section 8.1 for the "duty to reapply" standard condition.

6.4 Suspected Non-filer Reporting

The Permittee shall report suspected AZPDES non-filers to ADEQ at stormwatercompliance@azdeq.gov on a monthly basis. This report shall include, at a minimum, the facility name and location of the suspected non-filer and the subject line must include "Non-filer – MS4 Permittee Name – AZPDES Permit Number." Non-filer reporting is not subject to the signatory

requirement specified in Section 7.2. See Part 9.0 Definitions: Non-Filer for more information. See Section 4.6.A.2 regarding non-filer reporting for the AZPDES MSGP and Section 4.7.A.3 regarding non-filer reporting for the AZPDES CGP.

7.0 EMPLOYEE TRAINING

[40 CFR 122.26(d)(2)(iv)(D)]

7.1 Training Schedule

A. New Employees

1. The Permittee shall provide training to new employees with direct stormwater responsibilities within one year of hire.
2. In the event there are no new employees in an annual reporting period, the Permittee shall document in the annual report that no new employees were hired during the annual reporting period.

B. Existing Employees

1. The Permittee shall provide refresher training to existing employees with direct stormwater responsibilities at least once every two years.
2. Follow-up training shall be provided as needed to address changes in procedures, techniques, requirements, or staffing.

C. Contractor Exception

1. Municipal employee training is not required for services subcontracted to a qualified contractor.

7.2 Employee Training Topics

At minimum, the topics specified in this section shall be covered in employee training at the cadence specified in Section 7.1.

A. Illicit Discharge Detection and Elimination (IDDE) and pollution awareness (Section 4.4) Training shall address the following:

1. Typical sources of illicit discharge, and
2. Standard operating procedures to address and track illicit discharge following detection or reporting.

B. Municipal Facilities Pollution Prevention and Good Housekeeping Practices (Section 4.5) Training shall address the following:

1. The importance of protecting water quality,
2. Pollutants and sources of pollutants expected at the facilities,
3. Operation and maintenance standards,
4. Inspection procedures,
5. Selecting appropriate BMPs,
6. Ways to perform job activities to prevent or minimize impacts to water quality, and
7. Procedures for reporting water quality concerns.

C. Industrial and Commercial Facilities (Non-Municipally Owned) (Section 4.6)

1. Typical sources and pathways of stormwater pollution discharge to the MS4 from non-municipally owned industrial and commercial facilities,
2. Effective control measures to decrease pollutant discharge to the MS4 from non-municipally owned industrial and commercial facilities, and
3. Standard operating procedures to inspect or otherwise address pollutant discharge to the MS4 from non-municipally owned industrial and commercial facilities.

D. Construction Sites (Section 4.7)

1. Typical sources and pathways of stormwater pollution discharge to the MS4 from construction projects,
2. Effective control measures to decrease pollutant discharge to the MS4 from construction projects, and
3. Standard operating procedures to inspect or otherwise address pollutant discharge to the MS4 from construction projects.
4. Site Plan Review Staff
   a. Grading and drainage design standards;
   b. Municipal ordinances related to stormwater and post-construction;
   c. Requirements for structural and non-structural management practices in new development and redevelopment; and
   d. Post-construction stormwater controls.

E. Post-Construction (Section 4.8)

Training for inspection staff shall include the following:

1. Municipal ordinances related to stormwater and post-construction;
2. Requirements for structural stormwater control practices in new development and redevelopment;
3. Maintenance responsibilities through agreements and policies;
4. Inspection procedures; and
5. Enforcement procedures.

8.0 STANDARD AZPDES PERMIT CONDITIONS AND NOTIFICATION

Standard permit conditions in Section 8.0 are consistent with the permit provisions required under 40 CFR 122.41 and A.A.C. R18-9-A905(A)(3).

8.1 Duty to Reapply

[A.A.C. R18-9-B904(B) incorporates by reference 40 CFR 122.41(b)]

The Permittee shall submit the information required for renewal (Appendix B) at least 180 days before the permit expiration date.

8.2 Signatory Requirements

[A.A.C. R18-9-905(A)(3)(a), incorporates 40 CFR 122.41(k) and (l), A.A.C. R18-9-A905(A)(1)(c), incorporates by reference 40 CFR 122.22]

All permit applications for a municipality, State, Federal, or other public agency shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (i) The chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

All applications, reports or information submitted to ADEQ shall be signed and certified.

The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six (6) months per violation, or by both.

All reporting required by this permit and other information requested by the Director shall be signed by a person described above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

A. The authorization is made in writing by a person described above;

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

C. The written authorization is submitted to the Director.

If an authorization under the paragraphs above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

Certification. Any person signing a document under paragraph (a) or (b) of this section 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*.

8.3 <u>Duty to Comply</u>

[A.A.C. R18-9-A905(A)(3)(a) incorporates by reference 40 CFR 122.41(a)]

The Permittee shall comply with all conditions of this permit and any standard and prohibition required under A.R.S. Title 49, Chapter 2, Article 3.1, A.R.S. 49-221, and A.A.C. Title 18, Chapter 9, Articles 9 and 10. 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, Articles 9 and 10, and is grounds for enforcement action, permit termination, revocation and reissuance, or modification, or denial of a permit renewal application.

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.

The Permittee shall comply with the standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Clean Water Act within the time provided in the regulation that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

Civil Penalties. A.R.S. § 49-262(C) provides that any person who violates any provision of A.R.S. Title 49, Chapter 2, Article 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.

Criminal Penalties. Any person who with criminal negligence or knowingly violates a condition of this permit, or violates a provision under A.R.S. Title 49, Chapter 2, Article 3.1, or A.A.C. Title 18, Chapter 9, Articles 9 and 10 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.

8.4 Need to Halt or Reduce Activity Not a Defense

[A.A.C. R18-9-A905(A)(3)(a) incorporates by reference 40 CFR 122.41(c)]

It shall not be a defense for the Permittee 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.

8.5 Duty to Mitigate

[A.A.C. R18-9-A905(A)(3)(a) incorporates by reference 40 CFR 122.41(d)]

The Permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

8.6 Proper Operation and Maintenance

[A.A.C. R18-9-A905(A)(3)(a) incorporates by reference 40 CFR 122.41(e)]

The Permittee 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 Permittee to achieve compliance with the conditions of this permit and the Permittee's SWMP. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the Permittee when the operation is necessary to achieve compliance with the conditions of the permit.

8.7 Permit Actions

[A.A.C. R18-9-A905(A)(3)(a) incorporates by reference 40 CFR 122.41(f)]

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

8.8 Property Rights

[A.A.C. R18-9-A905(A)(3)(a) incorporates by reference 40 CFR 122.41(g)]

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

8.9 Duty to Provide Information

[A.A.C. R18-9-A905(A)(3)(a) incorporates by reference 40 CFR 122.41(h)]

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

8.10 Inspection and Entry

[A.A.C. R18-9-A905(A)(3)(a) incorporates by reference 40 CFR 122.41(i)]

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

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

B. Have access to and copy, at reasonable times, any records that must be kept under the terms of this permit;

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

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

8.11 Monitoring and Records

[A.A.C. R18-9-A905(A)(3)(a) incorporates by reference 40 CFR 122.41(j)]

A. Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity.

B. The permittee must retain records of all monitoring information, all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for at least three years from the date this permit coverage expires or the permit authorization is terminated. This period may be extended by request of the Director at any time. Permittees must submit any such records to ADEQ upon request.

C. Records of monitoring information must include:

1. The date, exact place, and time of sampling or measurements;
2. The individual(s) who performed the sampling or measurements;
3. The date(s) analyses were performed;
4. The time(s) the analyses were initiated;

5. The individual(s) who performed the analyses;
6. References and written procedures, when available, for the analytical techniques or methods used;
7. The analytical techniques or methods used; and
8. The results of such analyses.

D. Monitoring must be conducted according to test procedures approved under 40 CFR 136, unless specific test procedures have been otherwise specified in this permit.

E. 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.

8.12 Reporting Requirements

[A.A.C. R18-9-A905(A)(3)(a) incorporates by reference 40 CFR 122.41(l)]

A. Anticipated Noncompliance

The Permittee shall give advance notice to ADEQ as soon as possible, but no fewer than 30 days, of any planned changes in the permitted facility or activity which may result in noncompliance with the permit requirements.

B. Transfers

This permit is not transferable to any person except after notice to ADEQ. ADEQ may require modification or revocation and reissuance of the permit to change the name of the Permittee and incorporate such other requirements as may be necessary under Arizona Revised Statutes and Clean Water Act.

C. Monitoring Reports

Monitoring results must be reported at the intervals specified elsewhere in this permit.

1. Monitoring results must be reported on a Discharge Monitoring Report (DMR) provided online by ADEQ.
2. If the Permittee 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 e-DMR, or submitted as a separate report.
3. Calculations for all limitations which require averaging of measurements must use an arithmetic mean and non-detected results must be incorporated in calculations as the limit of quantitation for the analysis.

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.

Within five (5) calendar days of the noncompliance event, the Permittee shall provide a written notification to ADEQ at stormwatercompliance@azdeq.gov. 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 Noncompliance

The Permittee shall report all instances of noncompliance not otherwise required to be reported under this subsection, with their next annual report.

F. Other Information

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to ADEQ, the Permittee shall promptly submit such facts or information.

8.13 <u>Bypass</u>

[A.A.C. R18-9-A905(A)(3)(a) incorporates by reference 40 CFR 122.41(m)]

Definitions:

Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

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 bypass. Severe property damage does not mean economic loss caused by delays in production.

A. Bypass not Exceeding Limitations:

The Permittee may allow any bypass to occur which does not cause effluent limitation to be exceeded, but only if it also is for essential maintenance to assure efficient operation.

Notice:

1. Anticipated bypass. If the Permittee 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.
2. Unanticipated bypass. The Permittee shall submit notice of an unanticipated bypass as required in Section 7.14.

B. Prohibition of bypass:

1. Bypass is prohibited, and ADEQ may take enforcement action against the Permittee for bypass, unless:
   a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
   b. 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 industry judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
   c. The Permittee submitted notices as required in subsection above.

2. ADEQ may approve an anticipated bypass after considering its adverse effects if the Department determines that it will meet the three conditions listed above.

8.14 Upset

[A.A.C. R18-9-A905(A)(3)(a) incorporates by reference 40 CFR 122.41(n)]

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.

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 below 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.

A. Conditions necessary for a demonstration of upset. An operator who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

   1. An upset occurred and that the operator can identify the cause(s) of the upset;
   2. The permitted facility was at the time being properly operated;
   3. The Permittee submitted notice of the upset as required; and
   4. The Permittee complied with any remedial measures required.

B. Burden of proof. In any enforcement proceeding, the Permittee, who is seeking to establish the occurrence of an upset, has the burden of proof.

8.15 Penalties for Violations of Permit Conditions

Any permit noncompliance constitutes a violation and is grounds for an enforcement action, permit termination, revocation and reissuance, revision, or denial of a permit renewal application.

A. Civil Penalties. A.R.S. § 49-262 provides that any operator 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 operator who with criminal negligence or knowingly violates a condition of this 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.

8.16 Severability

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

8.17 State or Tribal Law

[Pursuant to Clean Water Act Section 510]

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee 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.

9.0 DEFINITIONS

Aliquot means a portion of a discrete sample used to produce a composite sample for analysis

Analytical monitoring means monitoring conducted to provide quantitative results in accordance with A.A.C. R18-9-A905(B).

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "waters of the United States." 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. [40 CFR 122.2].

Clean Water Act (CWA) means the federal water pollution control act amendments of 1972 (P.L. 92-500; 86 Stat.816; 33 United States Code sections 1251 through 1376), as amended. [A.R.S. § 49-201(6)]

Composite sample is a sample that is formed by combining a series of individual, discrete samples of specific volumes at specified intervals. Composite samples characterize the quality of a stormwater discharge over a given period of time, such as the duration of a storm event. Although these intervals can be time-weighted or flow-weighted, this permit requires the collection of flow-proportional composite samples. This means that samples are collected and combined using aliquots in proportion to flow rather than time. Also see definitions for Flow-Proportional Composite Sample and Flow-Weighted Composite Sample.

Construction activity is 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), small construction activities in 40 CFR 122.26(b)(15)(i), and includes construction support activities.

Control Measure or Controls means **a**ny practice or method used to prevent or reduce the discharge of pollutants to protected surface waters. Structural controls refer to physical controls installed on site; non-structural controls refer to best management practices, such as good housekeeping See Best Management Practices definition above.

Construction Support Activity means a construction-related activity that exclusively supports the construction site and involves activities such as clearing, grading, excavating, and stockpiling of fill materials or pollutant-generating activities of its own, and can include activities associated with concrete or asphalt batch plants, equipment staging yards, materials storage areas, excavated material disposal areas, and borrow areas. These activities may or may not be contiguous with the construction site, but the acreage of the support area should be included in the total site acreage amount.

Discharge when used without qualification means the "discharge of a pollutant."

Discharge of a pollutant means any addition of any "pollutant" or combination of pollutants to protected surface waters from any "point source," or any addition of any pollutant or combination of pollutants to the 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 includes additions of pollutants into protected surface waters from surface runoff which is collected or channeled by man. See 40 CFR 122.2.

Discrete or Grab Sample means a discrete, individual sample collected from a single location within a short period of time (over a period of time not exceeding 15 minutes).

Excursion for the purposes of this permit, when the permitting authority determines that an MS4 stormwater discharge causes, has the reasonable potential to cause, or contributes to an in-stream concentration or pH measurement outside of the numeric SWQS, the permit must require the Permittee to control or abate the discharge of that pollutant through best management practices to the MEP. [40 CFR 122.44(d) and 40 CFR 122.44(k)]

Field Screening Point means any point source location that "releases" stormwater from the City's storm sewer system to another regulated MS4 operator's infrastructure, and in some cases private infrastructure, where the same release then either directly discharges to a water of the United States, or where the City determines there is a reasonable probability of the release discharging to a water of the United States. The field screening point with ID "FF-ACES" located at Falcon Field Airport along E. Fighter Aces Drive is also a designated compliance monitoring point to sample stormwater representative of discharge from the City of Mesa MS4.

Flow-Proportional Composite Sample means a sample that combines discrete samples collected over a period of time, based on the flow of the discharge being sampled. There are two (2) methods used to collect this type of sample. One collects a constant sample volume at time intervals that vary based on stream flow. The other collects discrete samples that are proportioned into aliquots of varying volumes based on stream flow, at constant time intervals (i.e. flow-weighted composite sample).

Flow-Weighted Composite Sample means a composite sample consisting of a mixture of aliquots from discrete samples collected at a constant time interval, where the volume of each aliquot is proportional to the flow rate of the discharge.

Hardness The sum of the calcium and magnesium concentrations, expressed as calcium carbonate (CaCO3) in milligrams per liter.

Illicit connection means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

Illicit discharge means 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 [40 CFR 122.26(b)(2)].

Impaired waters means a protected surface water for which credible scientific data exists that satisfies the requirements of A.R.S. § 49-232 and that, in the case of WOTUS, demonstrates that the water should be identified pursuant to 33 U.S.C. § 1313(d) and the regulations implementing that statute. A.R.S. § 49-231(1). [R18-11-601(7)].

Industrial activity means the 10 categories of industrial activities included in the definition of "Stormwater discharges associated with industrial activity" as defined in 40 CFR 122.26(b)(14)(i)-(ix) and (xi).

Large Municipal Separate Storm Sewer System (MS4) means a municipal separate storm sewer that is either:

A. Located in an incorporated place with a population of 250,000 or more as determined by the 1990 Decennial Census by the Bureau of the Census; or

B. Located in a county with an unincorporated urbanized area with a population of 250,000 or more, according to the 1990 Decennial Census by the Bureau of Census, but not a municipal separate storm sewer that is located in an incorporated place, township, or town within the county; or

C. Owned or operated by a municipality other than those described in (1) or (2) above, and that are designated by the Director under A.A.C. R18-9-A902(D) as part of the large municipal separate storm sewer system. [A.A.C. R18-9-A901(16)].

Limit of Detection (LOD) means an analyte- and matrix-specific estimate of the minimum amount of a substance that an analytical process can reliably detect. This may be laboratory dependent and is developed according to A.A.C. R9-14-615(C)(7).

Limit of Quantitation (LOQ) means the minimum levels, concentrations, or quantities of a target variable such as an analyte that can be reported with a specific degree of confidence.

Major municipal separate storm sewer outfall (or "major outfall") means a municipal separate storm sewer outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than a circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive stormwater from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more). [40 CFR 122.26(b)(5)]

Medium Municipal Separate Storm Sewer System (MS4) means a municipal separate storm sewer that is either:

A. Located in an incorporated area with a population of 100,000 or more but less than 250,000, as determined by the 1990 Decennial Census by the Bureau of the Census; or

B. Located in a county with an unincorporated urbanized area with a population of 100,000 or more but less than 250,000 as determined by the 1990 Decennial Census by the Bureau of the Census; or

C. Owned or operated by a municipality other than those described in subsections ~~(~~a) and (b) and that are designated by the director under A.A.C. R18-9-A902(D)(2) as part of the medium municipal separate storm sewer system. [A.A.C. R18-9-A901 (20)]

Method Detection Limit (MDL) an analyte and matrix-specific estimate of the minimum amount of a substance that the analytical process can reliably detect with a 99% confidence level. This may be laboratory dependent and is developed according to A.A.C. R9-14-615(C)(7).

Minimum Level (ML) The concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML may be obtained in several ways and are either:

A. Published in a method;

B. Sample concentrations equivalent to the lowest acceptable calibration point used by a laboratory; or

C. Calculated by multiplying the MDL in a method, or the MDL determined by a lab, by a factor of 3.

Municipal separate storm sewer means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that are:

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 (POTW) as defined at 40 CFR 122.2 and A.R.S. § 49-255.

Municipal separate storm sewer system (MS4) means 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)].

Non-filer means an entity that is required to obtain coverage under an AZPDES Construction General Permit (CGP) or Multi-Sector General Permit (MSGP) but has failed to submit a Notice of Intent (NOI), obtain a No Exposure Certificate (NEC), or otherwise secure permit coverage for discharges to Arizona protected surface waters or to a Municipal Separate Storm Sewer System (MS4) conveyance leading to Arizona protected surface waters. The non-filer designation does not apply to sites with waivers and No Discharge Certificates.

Non-WOTUS Protected Surface Water means a protected surface water that is not a WOTUS. [A.R.S. § 49-201(27)].

Not-Attaining Water means a Water of the U.S. that is assessed as impaired, but is not placed on the 303(d) List because a TMDL is prepared and implemented for the surface water; or 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 the impairment of the surface water is due to pollution but not a pollutant, for which a TMDL load allocation cannot be developed [R18-11-601(11)].

Outfall means a "point source" as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to a protected surface water and does not include open conveyances connecting two 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 [40 CFR 122.26(b)(9)].

Outstanding Arizona Water (OAW) means a WOTUS protected surface water. that has been designated by ADEQ as an outstanding state resource by the Director under A.A.C. R18-11-112. [A.A.C. R18-11-101(28)].

Perennial water means a surface water or portion of a surface water that flows continuously throughout the year [A.R.S. § 49-201(31)].

Permittee, for the purposes of this permit, a municipality is given authorization to discharge stormwater from a municipal separate storm sewer system.

Point source means any discernible, confined, and discrete conveyance, including 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 to WOTUS or protected surface water. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff. [40 CFR 122.2 and A.R.S. § 49-201(34)].

Pollutant means 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, and mining, industrial, municipal, and agricultural wastes or any other liquid, solid, gaseous, or hazardous substance. [40 CFR 122.2 and A.R.S. § 49-201(35)].

Protected Surface Waters means waters of the state listed on the Protected Surface Water List under Section 49-221, Subsection G and all WOTUS. [A.R.S. § 49-201(38)].

Stormwater means stormwater runoff, snow melt runoff, and surface runoff and drainage. [40 CFR 122.26(b)(13)]

Stormwater Discharge Associated with Construction Activity (CGP) means 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 (MSGP) means a discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the AZPDES program under Part 122. For the categories of industries identified in this section, the term includes, but is not limited to, stormwater discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at part 401 of this chapter); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater. For the purposes of this paragraph, material handling activities include storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, byproduct or waste product. The term excludes areas located at industrial sites that are separate from the facility's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with stormwater drained from the above described areas. Industrial facilities include those that are federally, State, or municipally owned or operated that meet the description of the facilities listed in 40 CFR 122.26(b)(14). The term also includes those facilities designated under the provisions of 40 CFR 122.26(a)(1)(v). See 40 CFR 122.26(b)(14).

Stormwater Management Program (SWMP) means a comprehensive program to manage the quality of stormwater discharged from the municipal separate storm sewer. Stormwater Management Program is also used to refer to the written document that describes the SWMP components.

Surface Water Quality Standard (SWQS) means a standard adopted for a protected surface water pursuant to A.R.S. § 49-221 and, in the case of WOTUS, pursuant to A.R.S. § 49-222. [A.R.S. § 49-231(2)].

Total Maximum Daily Load (TMDL) means 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 surface water quality standards. Each total maximum daily load shall include allocations for sources that contribute the pollutant to the water. Total maximum daily loads for WOTUS shall meet the requirements of section 303(d) of the Clean Water Act (33 United States Code, Section 1313(d)) and regulations implementing that statute to achieve applicable surface water quality standards. Total maximum daily loads for non-WOTUS protected surface waters shall not be subject to review, approval or enforcement by the United States Environmental Protection Agency. [A.R.S. § 49-231(4)]

Waste Load Allocation (WLA) is the portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water-quality based effluent limitation. [40 CFR 130.2(h)]

Waters of the United States (WOTUS) means those waters as defined in 40 CFR 122.2.

WOTUS Protected Surface Water means a protected surface water that is a WOTUS. [A.R.S. § 49-201(54)].