



ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM

AUTHORIZATION TO DISCHARGE STORMWATER FROM A MUNICIPAL SEPARATE STORM SEWER SYSTEM TO PROTECTED SURFACE WATERS

This permit provides authorization to discharge under the Arizona Pollutant Discharge Elimination System (AZPDES) program, in compliance with the provisions of the Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Article 3.1, the Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Article 9, and amendments thereto; and the Clean Water Act as amended (33 U.S.C. 1251 *et seq.*). The Permittee, the

City of Tempe

P.O. Box 5002 Mail Stop 3801

Tempe, Arizona 85280-5002

is authorized to discharge stormwater from the municipal separate storm sewer system (MS4) owned or operated by the City of Tempe to 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).

This permit becomes effective on July 1, 2021.

This permit was modified on

This permit and the authorization to discharge expires at midnight on June 30, 2026.

Arizona Department of Environmental Quality

Trevor Baggione, Director
Water Quality Division

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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 Tempe, a medium MS4.

1.2 Authorized Discharges

Subject to the terms and conditions of this permit, the City of Tempe is authorized to discharge stormwater from MS4 outfalls owned or operated by the City of Tempe to all waters on the protected surface water list, including discharges to waters of the U.S. (WOTUS) and non-WOTUS protected surface waters. The requirements of discharges to non-WOTUS protected surface waters are state-only, and enforceable solely by ADEQ.

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.

2.0 LEGAL AUTHORITY

[40 CFR 122.26(d)(1)(ii)]

The City of Tempe 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)]

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

2.2 Maintain Adequate Legal Authority

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

To be considered adequate, this legal authority must, at a minimum, authorize or enable the City of Tempe 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 discharges 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 on 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), and A.A.C. R18-11-107.01(E); A.R.S. 49-221]

- A. The City of Tempe shall protect water quality by reducing the discharge of pollutants, to the maximum extent practicable (MEP), that cause or contribute to an exceedance of any applicable surface water quality standard (SWQS) this is established at the time the permit becomes effective including the narrative standards that are applicable to the protected surface water receiving discharges from the MS4. To do so, the City of Tempe shall fully implement the Stormwater Management Program (SWMP), any subsequent revisions, and all requirements of this permit.

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

- B. The City of Tempe shall analyze stormwater monitoring data at the monitoring locations, as required in Section 5.0 (Monitoring Requirements), by submitting Discharge Monitoring Reports (DMRs) with analytical data to compare to the applicable SWQS at the respective monitoring location to the protected surface water. An exceedance of a SWQS is not considered a violation of this permit as long as the City of Tempe is implementing applicable control measures to reduce the discharge of pollutants to the MEP in the drainage area(s) where such exceedances have occurred
- C. The City of Tempe 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 MEP.
- D. If, despite full implementation of the SWMP and other requirements of this permit to reduce the discharge of pollutants, the City of Tempe determines that a discharge at a monitoring location contains a pollutant above a SWQS, then the City of Tempe shall report this information in the annual report. The information in the annual report shall include, at a minimum, the information specified in Section 6.0 (Reporting Requirements) of this permit.

3.2 SWQS Exceedances Notification and Planning

- A. If the City of Tempe 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 is causing or contributing to a SWQS exceedance, the City of Tempe shall notify ADEQ within 30 calendar days of becoming aware of the exceedance.
- B. If implementation of Permit requirements does not address the exceedance and the exceedance is not a routine or ubiquitous stormwater pollutant, the City of Tempe shall propose to ADEQ an action plan, including a schedule for implementation, and submit it to ADEQ within 60 calendar days of becoming aware of the SWQS exceedance. ADEQ shall provide a review and approval within 30 calendar days.
- C. All notifications in this section are to be via AZPDES@azdeq.gov.
- D. If a discharge containing pollutants above an applicable SWQS persists and the City of Tempe has not modified existing control measures or implemented additional control measures to reduce the discharge of pollutants to the MEP, this permit may be reopened and modified as provided in A.A.C R18-9-B906 and 40 CFR 122.62.

3.3 Discharges from the MS4 to Outstanding Arizona Waters (OAWs)

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

At the time of permit issuance, no waters of the U.S. receiving discharges from the City of Tempe's MS4 have been classified as an OAW. However, if a water of the U.S. is classified as an 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.

3.4 Discharges from the MS4 to Impaired Waters

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

At the time of permit issuance, no protected surface waters receiving discharges from the City of Tempe's MS4 have been listed on the most current version of Arizona's 303(d) list and not-attaining waters listed in the 305(b) Assessment Report.

- A. If applicable during the permit term, the City of Tempe shall develop and implement control measures to minimize the discharge of any listed parameter(s) from the MS4 to protected surface waters listed on the most current version of Arizona's 303(d) list and not-attaining waters listed in the 305(b) Assessment Report. In addition to the monitoring requirements in Table 1, the City of Tempe shall monitor for any 303(d) listed parameter throughout the permit term at a representative outfall discharging to the impaired water.
- B. If a total maximum daily load (TMDL) has been established by ADEQ the stormwater management program (SWMP) shall be consistent with the requirements of the TMDL, including any wasteload allocation in the TMDL. The SWMP must identify Best Management Practices (BMPs) the City of Tempe will use to meet wasteload allocations and include monitoring for associated parameter(s).
- C. If a TMDL has not been established then the SWMP shall include a section describing how the program will control the discharge of 303(d) listed pollutants and ensure to the maximum extent practicable that discharges from the MS4 will not cause or contribute to exceedances of surface water quality standards. The SWMP must also identify BMPs the City of Tempe will use to control discharges and include monitoring of their effectiveness.

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 City of Tempe shall continue to implement and maintain a Stormwater Management Program (SWMP) designated to reduce the discharge of pollutants, from the MS4, to the maximum extent practicable (MEP) to protect water quality and satisfy applicable SWQS. The City of Tempe 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 City of Tempe must include the following information in its SWMP document:
 - 1. Ordinances, or other regulatory mechanisms, providing the legal authority necessary to implement and enforce the requirements of this Permit; and
 - 2. Written procedures describing how the City of Tempe will implement provisions described in Sections 4.2-4.8.
- B. The City of Tempe shall keep records demonstrating compliance with the requirements of the Permit for a minimum of three (3) years.

4.2 Public Education and Outreach

[40 CFR 122.26(d)(2)(iv)(B)(6)]

The City of Tempe 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 City of Tempe 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 the entire permit term.
 - 1. At a minimum, the City of Tempe shall provide public education and outreach to at least one (1) target group and focus its efforts on conveying relevant messages using one (1) or more appropriate topic(s) listed below during each year of the permit term. Topics listed are not exclusive, and the City of Tempe may focus its efforts

on one (1) or more target group(s) and topic(s) most relevant to the MS4.

a. Target Groups:

- i. General Public, Residential Community, Homeowners Associations, Schools

b. Topics:

- i. Post-construction ordinances and long-term maintenance requirements for permanent stormwater controls
- ii. Stormwater runoff issues and residential stormwater management practices
- iii. Potential water quality impacts of application of pesticides, herbicides and fertilizer and control measures to minimize runoff of pollutants in stormwater
- iv. Potential impacts of animal waste on water quality and the need to clean up and properly dispose of pet waste to minimize runoff of pollutants in stormwater
- v. Illicit discharges and illegal dumping, proper management of non-stormwater discharges, and to provide information on reporting spills, dumping, and illicit discharges
- vi. Spill prevention, proper handling and disposal of toxic and hazardous materials, and measures to contain and minimize discharges to the storm sewer system
- vii. Installation of catch basin markers or stenciling of storm sewer inlets to minimize illicit discharges and illegal dumping to storm sewer system
- viii. Proper management and disposal of used oil
- ix. Community activities (monitoring programs, environmental protection organization activities, etc.)

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

-
- a. Target Groups:
 - i. Development Community, Construction Site Operators, Targeted Sources or Types of Businesses (industrial or commercial)
 - b. 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
 - vii. Water quality impacts associated with land development (including new construction and redevelopment)
3. The City of Tempe shall evaluate and measure the understanding and adoption of the targeted behaviors for at least one target audience in at least one subject area. No later than the end of year four (4), the City of Tempe shall use the results of the evaluation to direct future education and outreach resources most effectively, as well as to evaluate changes in adoption of the targeted behaviors. The City of Tempe may meet this requirement individually or as a member of a regional group.
- a. The 4th year annual report shall include an evaluation of the target audience in a subject area and any changes adopted in response to targeted behaviors in order to be more effective. If a member of a regional group, the City of Tempe may not submit the same exact evaluation report as other members of the regional group. The evaluation report must be tailored to the City of Tempe.

4.3 Public Involvement and Participation

[40 CFR 122.26(d)(iv)]

The City of Tempe shall engage the public to effectively message stormwater pollution prevention, to undertake group activities that highlight storm drain pollution, and contribute volunteer community actions to restore and protect Arizona's protected surface waters. The SWMP shall include details of the public involvement/participation strategy.

- A. The City of Tempe shall host an annual public SWMP workshop to inform and engage interested members of the public with the development and implementation of all parts of the City of Tempe's SWMP.
- B. The City of Tempe shall create opportunities for citizens to participate in the implementation of stormwater controls (for example, stream clean-ups, storm drain stenciling, volunteer monitoring, disposal of household hazardous waste, educational activities, and facilitation of Adopt-A-Wash, Adopt-A-Park, and Adopt-A-Street litter control activities).
- C. The City of Tempe 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.
- D. No later than one (1) year from the permit's effective date, the current SWMP and latest annual report shall be posted on the City of Tempe's website. The current SWMP and annual report in subsequent years shall be posted no later than thirty (30) days of the due date of the annual report.

4.4 Illicit Discharge Detection and Elimination (IDDE)

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

- A. The City of Tempe must continue to implement a program to detect, investigate, and eliminate non-stormwater discharges including dumping and spills, into its system. Illicit discharge means any discharge to a MS4 that is not composed entirely of storm water except discharges pursuant to a NPDES or AZPDES permit, discharges resulting from emergency firefighting activities, and allowable non-stormwater discharges listed in 4.4.B.
 - 1. The SWMP shall detail the components and implementation of the City of Tempe'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)]

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

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
20. Discharges authorized by another NPDES or AZPDES permit

C. MS4 Mapping

1. The City of Tempe shall maintain an inventory of all known MS4 outfalls, interconnections with other MS4s, and those major outfalls identified by the City of Tempe as priority for illicit discharges or other non-stormwater flows.
 - a. When identifying these priority major outfalls, the City of Tempe must consider at a minimum:

- i. History of illicit discharges, and any cause for prioritization identified by the City of Tempe.
 - b. A copy of the storm sewer system map must be available for review by the permitting authority upon request.
2. The City of Tempe's MS4 map must include the location of all known MS4 outfalls and drainage areas contributing to those outfalls that are operated by the City of Tempe, and that discharge within the City of Tempe's jurisdiction to a protected surface water.
3. The City of Tempe's MS4 map must include the location (and name, where known to the City of Tempe) of all protected surface waters receiving discharges from those outfalls. Each mapped outfall must be given a unique identifier, which must be noted on the map. The City of Tempe shall implement this MS4 Mapping Section no later than one (1) year from the effective date of this Permit. The City of Tempe shall maintain and update annually, thereafter.

D. Employee Training

1. The City of Tempe shall provide training for new employees with direct stormwater responsibilities at least one (1) time per year.
 - a. In the event there are no new employees in a given period, the City of Tempe shall sufficiently document in the annual report that no new employees were hired during said period.
2. The City of Tempe shall provide refresher training for existing employees with direct stormwater responsibility at least once every two (2) years.
3. The City of Tempe shall provide stormwater pollution awareness training within one (1) year of the effective date of this permit and present the training to select groups or staff with stormwater responsibilities at least once every two (2) years thereafter.

E. Inspections and Screening

1. The City of Tempe shall continue to implement an ongoing program designed to detect and identify non-stormwater discharges into the City of Tempe'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 City of Tempe shall inspect the following “priority” major outfalls or field screening points (if applicable) 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 (5) 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 City of Tempe for illicit discharges.
3. The City of Tempe shall inspect approximately 20% of the remaining (i.e., non-priority) major outfalls and field screening points (if applicable) each year of the permit term, inspecting all major outfalls at least once within the five (5) year permit term. The City of Tempe shall document inspections, findings, and report evidence of non-stormwater flows, and follow-up actions taken by the City of Tempe.
4. The City of Tempe shall conduct ongoing dry weather field screening of major outfalls and field screening points (if applicable). 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.

F. Investigation Timelines

1. The City of Tempe shall immediately respond to all reports of illicit discharges which constitute a threat to human health or the environment.
2. The City of Tempe shall investigate (or refer to the appropriate agency with authority to act) within five (5) business days at least 90% of all reports of illicit discharges to the City of Tempe’s MS4.

G. Elimination

1. The City of Tempe shall initiate corrective actions and/or enforcement mechanisms to eliminate any 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 SWQS, are not subject to these timeframes. In this event, the City of Tempe shall maintain documentation of the investigation, sampling, and reasoning for determination that such discharges do not contain significant levels of pollutants.

H. Compliance Activities and Enforcement

1. The City of Tempe shall implement and follow enforcement procedures that incorporate escalating actions for violations of municipal stormwater requirements, ordinance, or code identified during inspections. At least 80% of all cases shall be satisfactorily resolved by halting the illicit discharge within one (1) calendar year from the original enforcement action.

I. Recordkeeping

1. The City of Tempe shall track and maintain records of the activities conducted to meet the requirements of this Section. The City of Tempe shall implement this recordkeeping Section no later than one (1) year from the effective date of this Permit.
2. The City of Tempe shall submit as part of each annual report a summary of IDDE activities in tabular format. The required fields are:
 - a. City of Tempe AZPDES Number
 - b. Date incident reported or discovered
 - c. Date of the beginning of your response
 - d. Date of the end of your response
 - e. Did the discharge reach a protected surface water, yes or no?
 - f. Incident location (address or latitude and longitude)
 - g. Pollutants
 - h. Source
 - i. Correction method(s)

4.5 Municipal Facilities Pollution Prevention and Good Housekeeping Practices

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

A. Employee Training

1. The City of Tempe shall provide new employee training at least one (1) time per year to employees with direct stormwater responsibilities and shall provide refresher training for existing employees directly involved in these activities at least once every two (2) years. (Municipal employee training will not be required for services subcontracted to a qualified contractor).

- a. The training program shall address the importance of protecting water quality, pollutants and sources of pollutants expected at the facilities, operation and maintenance standards, inspection procedures, selecting appropriate BMPs, ways to perform job activities to prevent or minimize impacts to water quality, and procedures for reporting water quality concerns. Follow-up training shall be provided as needed to address changes in procedures, techniques, requirements, or staffing.
- b. In the event there are no new employees in a given period, the City of Tempe shall sufficiently document in the annual report that no new employees were hired during said period.

B. Inventory

1. The City of Tempe shall continue to update and maintain at least annually an inventory, database, list, map, or other equivalent tracking system of facilities owned and operated by the City of Tempe that have 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;
 - f. Material and waste storage yards and processing facilities, including oil collection facilities;
 - g. POTWs and sludge handling areas;
 - h. Recycling facilities;
 - i. Street repair yards and street maintenance yards;
 - j. Other sites or sources that the City of Tempe determines may be significant sources of pollutants to the MS4

Some municipally-owned facilities that are included in the Section may be permitted under the MSGP or another AZPDES permit. In those cases, the specific permit shall govern.

2. The City of Tempe shall continue to use a system to review and prioritize the municipal facility inventory identified in 4.5.B.1. The

factors that shall be considered for purposes of prioritization include:

- a. Quantity and location of materials used and/or stored at the facility
- b. Potential for exposure to stormwater
- c. Potential to discharge a substantial pollutant load to the MS4 or to a protected surface water.

Facilities that are already covered under the MSGP or another AZPDES permit, or have a No Exposure Certification (NEC) will be ranked as low priority for consideration under this permit.

C. Inspections

1. The City of Tempe shall annually inspect approximately 20% of all facilities identified in 4.5.B.1. The City of Tempe may count follow up compliance inspections at the same site towards the average 20% annual inspection rate.

D. Good Housekeeping Measures

1. The City of Tempe shall implement practices, policies, and procedures to reduce stormwater impacts associated with runoff from all lands owned and operated by the City of Tempe. Lands owned and operated by the City of Tempe include, but are not limited to: parking lots, streets, roads, highways, buildings, parks, open space, 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
- k. Building exterior cleaning and maintenance

E. Recordkeeping

1. The City of Tempe shall track and maintain records of the activities conducted to meet the requirements of this Section.

4.6 Industrial and Commercial Facilities (Non-municipally Owned)

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

A. Employee Training

1. The City of Tempe shall provide new employee training at least one (1) time per year to employees with direct stormwater responsibilities and shall provide refresher training for existing employees directly involved in these activities at least once every two (2) years. (Municipal employee training will not be required for services subcontracted to a qualified contractor).
 - a. In the event there are no new employees in a given period, the City of Tempe shall sufficiently document in the annual report that no new employees were hired during said period.

B. Inventory

1. The City of Tempe shall continue to update and maintain at least annually an inventory, database, list, map, or other equivalent tracking system of private, commercial, and industrial sites that discharge stormwater pollutants to the MS4. Such sites that do not expose commercial and industrial activities to stormwater are not required to be on this inventory. The 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)
 - b. Other industrial and/or commercial sources that the City of Tempe determines may contribute significant pollutant loading to the MS4
2. The City of Tempe shall develop a mechanism to identify and document facilities subject to the MSGP that did not file a timely NOI (does not apply to sites with waivers and No Discharge Certificates). This system of non-filer notification shall also contain a means of communication with operators of these facilities to inform them of their responsibility to comply.

- a. Report non-filers to AZPDES@azdeq.gov within thirty (30) business days of identification..

3. The City of Tempe shall continue to use a system to review and prioritize the industrial and commercial facilities inventory identified in 4.6.B.1. The factors that shall be considered for purposes of prioritization include:

- a. Significant source of pollutants
- b. Violation history

C. Inspections

1. The City of Tempe shall annually inspect approximately 20% of all facilities identified in 4.6.B.1. The City of Tempe may count follow up compliance inspections at the same site toward the average 20% annual inspection rate.

D. Compliance Activities and Enforcement

1. The City of Tempe shall continue to implement an effective compliance and enforcement program that incorporates escalating actions for violations of municipal stormwater requirements, ordinance, or code. The escalated enforcement protocol shall focus on having at least 80% of cases the highest level of enforcement action resolved within one (1) calendar year of the initial inspection/violation.

E. Recordkeeping

1. The City of Tempe shall track and maintain records of the activities conducted to meet the requirements of this Section.

4.7 Construction Sites

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

A. Employee Training

1. The City of Tempe shall provide training at least one (1) time per year for new employees with stormwater responsibilities and shall provide refresher training for existing employees directly involved in these activities at least once every two (2) years. (Municipal employee training will not be required for services subcontracted to a qualified contractor)
 - a. In the event there are no new employees in a given period, the City of Tempe shall sufficiently document in the annual report that no new employees were hired during said period.

B. Plan Review

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

1. For construction projects that will result in land disturbance of one (1) acre or more (including those less than one (1) acre, but are part of a larger common plan of development) that discharge to the MS4 the City of Tempe shall review at least 80% of plans for new development and redevelopment (such as grading and drainage plans).

C. Inventory

1. The City of Tempe shall develop and update a comprehensive inventory based on sites identified in 4.7.B.1 within one (1) year. The City of Tempe shall maintain and update annually, thereafter.
2. The City of Tempe shall develop a mechanism to identify and document facilities subject to the CGP that did not file a timely NOI (does not apply to sites with waivers or No Discharge Certificates). This system of non-filer notification shall also contain a means of communication with operators of these facilities to inform them of their responsibility to comply.
 - a. Report non-filers to AZPDES@azdeq.gov in thirty (30) business days of identification

D. Construction Site Prioritization

1. Within one (1) year of the effective date of this Permit, the City of Tempe shall create an inspection prioritization schedule for construction sites identified in 4.7.C.1.

E. Inspections

1. Within one (1) year of the effective date of this Permit, the City of Tempe shall inspect construction sites identified in 4.7.C.1 at least one (1) time every three (3) months for highest priority sites and at least one (1) time every six (6) months for lowest priority sites, based on the prioritization schedule requirements in 4.7.D.
2. The City of Tempe 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.

F. Stormwater Control Measures

1. The City of Tempe 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;
 - j. Drainage way erosion control provisions.

G. Compliance Activities and Enforcement

1. The City of Tempe shall implement an effective compliance and enforcement program that incorporates escalating actions for violations of municipal stormwater requirements, ordinance, or code. The escalated enforcement protocol shall focus on having the highest level of enforcement action resolved within one (1) year of the initial inspection/violation.

4.8 Post-Construction

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

A. Employee Training

1. The City of Tempe shall provide new employee training with direct stormwater responsibilities at least one (1) time per year and shall provide refresher training for existing employees directly involved in these activities at least once every two (2) years. (Municipal employee training will not be required for services subcontracted to a qualified contractor). Training shall include the following:
 - a. Site Plan Review Staff with Stormwater Responsibilities:
 - i. Grading and drainage design standards;

- ii. Municipal ordinances related to stormwater and post-construction;
 - iii. Requirements for structural and non-structural management practices in new development and redevelopment; and
 - iv. Post-construction stormwater controls.
- b. Inspection Staff with Stormwater Responsibilities:
- i. Municipal ordinances related to stormwater and post-construction;
 - ii. Requirements for structural stormwater control practices in new development and redevelopment;
 - iii. Maintenance responsibilities through agreements and policies;
 - iv. Inspection procedures; and
 - v. Enforcement procedures.

In the event there are no new employees in a given period, the City of Tempe shall document in the annual report that no new employees were hired during said period.

B. Post-Construction Controls

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

1. The City of Tempe shall continue to 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 one (1) year after issuance of this Permit.
 - 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 City of Tempe follows the City of Tempe Engineering Design Criteria Manual, 2015. The City of Tempe may also implement a program of equivalent efficacy, provided that such a program's adequacy is documented by the City of Tempe prior to discharge.
2. Within the first year of the permit term, the City of Tempe shall evaluate and document three (3) areas contributing to SWQS

exceedances within the MS4 on which the City of Tempe will perform a retrofit feasibility assessment. The three (3) areas can be the MS4 areas draining to wet weather monitoring locations which are representative of residential, commercial, and industrial land uses or three (3) areas with equivalent land uses.

- a. The City of Tempe shall propose the three (3) areas with supporting documentation to ADEQ for review and approval with the first year annual report.
3. Upon approval by ADEQ of the three (3) areas, the City of Tempe shall develop a feasibility assessment to retrofit existing developed sites discharging to the MS4 in areas approved by ADEQ per 4.8.B.2 that are impacting water quality in protected surface waters. The retrofit feasibility assessment shall be developed by the end of the fourth year of the permit term and submitted with the fourth annual report. The retrofit feasibility assessment shall include, at a minimum:
- a. An inventory of potential retrofit locations within the areas designated by 4.8.B.2, which considers, at a minimum:
 - i. Locations contributing to MS4 discharges at concentrations higher than SWQS;
 - ii. Locations contributing pollutants to an impaired or not-attaining waterbody or Outstanding Arizona Water; and
 - iii. Locations with significant erosion contributing pollutants to protected surface waters.
 - b. A ranking of inventoried locations to prioritize potential retrofitting which includes, at a minimum, an evaluation of:
 - i. Stormwater pollutant control measures, feasibility, cost effectiveness, impervious area potentially treated, maintenance requirements, landowner cooperation, and expected improvement to water quality.

C. Compliance Activities and Enforcement

1. During the permit term (2020), the City of Tempe shall develop and implement an inventory, inspection, maintenance, and tracking program for post-construction stormwater BMPs.
2. The City of Tempe shall inspect 90% of sites discharging to the MS4 that received city permits within one (1) year after construction

completion to determine the compliance of their post-construction stormwater controls with the requirements of 4.8.B.1.a.

- a. Stormwater facilities/BMPs built under the 2020 permit must meet the required standards in 4.8.B.1.a. Achievement of 80% of the BMP's design standard for detention, retention, or treatment shall constitute compliance.
- 3. The City of Tempe shall document non-compliance with post-construction stormwater BMPs in 4.8.C.2 and follow-up actions taken by the City of Tempe to achieve compliance. The City of Tempe shall assign maintenance responsibility through enforceable means such as ordinances, policies, maintenance agreements, or easements.

5.0 MONITORING REQUIREMENTS

5.1 Monitoring and Assessment

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

- A. The City of Tempe shall conduct stormwater monitoring as required by Section 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)]

- A. Qualifying Storm Event

The City of Tempe shall conduct wet weather analytical monitoring for qualifying storm events. A qualifying storm event is rainfall in the amount of 0.1 inches or more and a resulting discharge. Stormwater samples shall be collected from qualifying storm events and at least 72 hours (3 calendar days) after a previous qualifying storm event.

B. Storm Event Records

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

1. The City of Tempe 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) in the drainage area for each stormwater monitoring location identified in 5.2.D; and
 - c. Indication of whether or not a stormwater sample was collected, and if not, indicate applicable NODI (No Discharge) code in myDEQ for explanation that prevented sampling.

C. Stormwater Sampling

The City of Tempe shall sample stormwater discharges from the MS4 to protected surface waters at the outfalls identified by the City of Tempe in Part 5.2.D. 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 location (outfall) as required in Part 5.3.E Table 1. Wet seasons, for the purposes of monitoring, shall be defined as follows:

Summer wet season: June 1 – October 31

Winter wet season: November 1 – May 31

Stormwater samples shall be collected at the frequencies specified (once each wet season). Sampling shall be conducted over the first three (3) hours of the discharge, or for the entire discharge period if the discharge lasts less than three (3) hours. The City of Tempe 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.

In addition to Table 1, the City of Tempe shall sample stormwater discharges from the MS4 as required in Part 5.3.E Table 2, one (1) time per wet season during year four (4) of the permit term. This monitoring requirement shall provide discharge characterization data of stormwater discharges from the MS4.

D. Monitoring Locations

The City of Tempe shall identify at least five (5) outfalls or monitoring locations within the MS4 representative of stormwater pollution from the MS4 for wet weather monitoring. The identified outfalls for analytical monitoring must be reported in the annual report and remain the same for the entire permit term. The City of Tempe’s selected outfalls must be representative of the following land use activities of the drainage area contributing to the system and discharge to a protected surface water. The outfalls may be a mixture of the following land use activities:

1. Residential
2. Commercial
3. Industrial

E. Sampling Waiver

Sampling of a qualifying storm event is not required during adverse climatic conditions. Adverse climatic conditions which prohibit the collection of samples include weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, electrical storms, etc.). Information on the conditions that prevented sampling shall be reported to ADEQ with the DMRs. The City of Tempe shall continue to monitor subsequent storm events during the monitoring season and perform storm water sampling of a qualifying storm event if another occurs during the same wet season.

F. Stormwater Monitoring Requirements

The following parameters shall be monitored. Any additional parameters may be monitored as determined by the City of Tempe. All parameters monitored must be reported to ADEQ through the Discharge Monitoring Reports (DMRs). Monitoring requirements for this section should also follow Section 7.11 requirements.

Table 1. Analytical Wet Weather Monitoring

Parameter ¹	Units	Monitoring Frequency	Monitoring Type ²
Conventional Parameters			
Average Flow Rate	---	1x/sampling event	Flow-proportional composite
pH	S.U.	1x/ wet season	Discrete

Parameter ¹	Units	Monitoring Frequency	Monitoring Type ²
Hardness	mg/L	1x/ wet season	Flow-proportional composite
Temperature	°C	1x/ wet season	Discrete
Total Suspended Solids (TSS)	mg/L	1x/ wet season	Flow-proportional composite
Microbiological			
<i>Escherichia coli</i> (<i>E. coli</i>)	cfu/100 mL or MPN	1x/ wet season	Discrete
Metals ³			
Arsenic	µg/L	1x/ wet season	Flow-proportional composite
Chromium, Total	µg/L	1x/ wet season	Flow-proportional composite
Copper	µg/L	1x/ wet season	Flow-proportional composite
Lead	µg/L	1x/ wet season	Flow-proportional composite
Selenium	µg/L	1x/ wet season	Flow-proportional composite
Zinc	µg/L	1x/ wet season	Flow-proportional composite
Nutrients			
Nitrate plus Nitrite as N	mg/L	1x/ wet season	Flow-proportional composite
Ammonia as N	mg/L	1x/ wet season	Flow-proportional composite
Total Kjeldahl Nitrogen (TKN) as N	mg/L	1x/ wet season	Flow-proportional composite
Total Phosphorus	mg/L	1x/ wet season	Flow-proportional composite
Organic Toxic Pollutants			
Total Oil and Grease	mg/L	1x/ wet season	Discrete

Footnotes:

1. The City of Tempe shall include any additional parameters in stormwater sampling as specified by Section 3.0 ARIZONA SURFACE WATER QUALITY STANDARDS (SWQS).
2. Discrete samples shall be collected manually. Flow-proportional composite samples shall be collected for all other parameters specified. A flow-proportional composite sample may be collected with a continuous sampler or as a combination of multiple discrete samples (aliquots). Only one (1) analysis of the composite of aliquots is required. Regardless of the sample type, the City of Tempe shall attempt to include the "first flush" (first 30 minutes of stormwater discharge) of a qualifying storm event whenever possible to do so.
3. When analyzing for metals, the City of Tempe shall assume a 1:1 total to dissolved ratio for purposes of reporting and comparison with SWQS. Alternatively, the City of Tempe may test for dissolved metals, if appropriate field filtering is completed. Hardness data must also be collected and used to calculate the corresponding SWQS for certain metals as indicated by SWQS rules.

Table 2 Analytical Wet Weather Characterization Monitoring in Year 4

Parameter	Units	Monitoring Frequency	Monitoring Type
Metals			
Antimony	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Cadmium	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Barium	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Beryllium	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Mercury	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Nickel	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Silver	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Thallium	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Inorganics			

Parameter	Units	Monitoring Frequency	Monitoring Type
Cyanide, Total	µg/L	1x /wet season during year 4 of the permit term	Discrete
Volatile Organic Compounds (VOCs)			
Acrolein	µg/L	1x /wet season during year 4 of the permit term	Discrete
Acrylonitrile	µg/L	1x /wet season during year 4 of the permit term	Discrete
Benzene	µg/L	1x /wet season during year 4 of the permit term	Discrete
Carbon tetrachloride	µg/L	1x /wet season during year 4 of the permit term	Discrete
Chlorobenzene	µg/L	1x /wet season during year 4 of the permit term	Discrete
Dibromochloromethane	µg/L	1x /wet season during year 4 of the permit term	Discrete
Chloroethane	µg/L	1x /wet season during year 4 of the permit term	Discrete
2-chloroethylvinyl ether	µg/L	1x /wet season during year 4 of the permit term	Discrete
Chloroform	µg/L	1x /wet season during year 4 of the permit term	Discrete
Bromodichloromethane	µg/L	1x /wet season during year 4 of the permit term	Discrete
1,2-dichlorobenzene	µg/L	1x /wet season during year 4 of the permit term	Discrete

Parameter	Units	Monitoring Frequency	Monitoring Type
1,3-dichlorobenzene	µg/L	1x /wet season during year 4 of the permit term	Discrete
1,4-dichlorobenzene	µg/L	1x /wet season during year 4 of the permit term	Discrete
1,1-dichloroethane	µg/L	1x /wet season during year 4 of the permit term	Discrete
1,2-dichloroethane	µg/L	1x /wet season during year 4 of the permit term	Discrete
1,3-dichloropropylene	µg/L	1x /wet season during year 4 of the permit term	Discrete
Ethylbenzene	µg/L	1x /wet season during year 4 of the permit term	Discrete
Bromomethane	µg/L	1x /wet season during year 4 of the permit term	Discrete
Chloromethane	µg/L	1x /wet season during year 4 of the permit term	Discrete
Methylene chloride	µg/L	1x /wet season during year 4 of the permit term	Discrete
1,1,2,2-tetrachloroethane	µg/L	1x /wet season during year 4 of the permit term	Discrete
Tetrachloroethylene	µg/L	1x /wet season during year 4 of the permit term	Discrete
Toluene	µg/L	1x /wet season during year 4 of the permit term	Discrete
1,2-trans-dichloroethylene	µg/L	1x /wet season during year 4 of the permit term	Discrete

Parameter	Units	Monitoring Frequency	Monitoring Type
1,1,1-trichloroethane	µg/L	1x /wet season during year 4 of the permit term	Discrete
1,1,2-trichloroethane	µg/L	1x /wet season during year 4 of the permit term	Discrete
Trichloroethylene	µg/L	1x /wet season during year 4 of the permit term	Discrete
Vinyl chloride	µg/L	1x /wet season during year 4 of the permit term	Discrete
Xylene	µg/L	1x /wet season during year 4 of the permit term	Discrete
Semi-VOCs - Acid Extractable			
2-chlorophenol	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
2,4-dichlorophenol	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
2,4-dimethylphenol	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
4,6-dinitro-o-cresol	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
2,4-dinitrophenol	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
2-nitrophenol	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
4-nitrophenol	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite

Parameter	Units	Monitoring Frequency	Monitoring Type
p-chloro-m-cresol	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Pentachlorophenol	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Phenol	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
2,4,6-trichlorophenol	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Semi-VOCs – Base/Neutrals			
Acenaphthene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Acenaphthylene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Anthracene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Benzo(a)anthracene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Benzo(a)pyrene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Benzo(b)fluoranthene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Benzo(g,h,i)perylene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Benzo(k)fluoranthene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite

Parameter	Units	Monitoring Frequency	Monitoring Type
Chrysene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Dibenz(a,h)anthracene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
3,3'-dichlorobenzidine	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Diethyl phthalate	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Dimethyl phthalate	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Di-n-butyl phthalate	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
2,4-dinitrotoluene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
2,6-dinitrotoluene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Di-n-octyl phthalate	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
1,2-diphenylhydrazine (as azobenzene)	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Fluoranthene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Fluorene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Hexachlorobenzene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite

Parameter	Units	Monitoring Frequency	Monitoring Type
Hexachlorobutadiene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Hexachlorocyclopentadiene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Hexachloroethane	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Indeno(1,2,3-cd)pyrene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Isophorone	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Naphthalene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Nitrobenzene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
N-nitrosodimethylamine	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
N-nitrosodipropylamine	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
N-nitrosodiphenylamine	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Phenanthrene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Pyrene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
1,2,4-trichlorobenzene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite

Parameter	Units	Monitoring Frequency	Monitoring Type
PCB / Pesticides			
Aldrin	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Alpha-BHC	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Beta-BHC	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Gamma-BHC	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Delta-BHC	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Chlordane	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
4,4'-DDT	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
4,4'-DDE	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
4,4'-DDD	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Dieldrin	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Alpha-endosulfan	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Beta-endosulfan	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite

Parameter	Units	Monitoring Frequency	Monitoring Type
Endosulfan sulfate	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Endrin	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Endrin aldehyde	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Heptachlor	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Heptachlor epoxide	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
PCB-1242	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
PCB-1254	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
PCB-1221	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
PCB-1232	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
PCB-1248	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
PCB-1260	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
PCB-1016	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Toxaphene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite

5.3 Sample Collection and Analysis

[40 CFR 136]

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

A. Quality Assurance (QA) Manual

The City of Tempe shall continue to implement and maintain a Quality Assurance (QA) Manual that describes sample collection and analyzes processes. If the City of Tempe collects samples or conducts sample analysis in house, the City of Tempe 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 as necessary 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;
 - d. Matrix to be sampled;
 - e. The analytes or compounds being measured; and
 - f. Applicable surface water quality standards that are established at the time the permit becomes effective.
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. Preservatives and holding times for the samples; and
 - d. 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 City of Tempe or the laboratory as a result of problems identified during QC checks.
4. How the City of Tempe 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 City of Tempe 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 City of Tempe or contracted to a third party.

C. Analytical Requirements

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

The Permittee shall use a laboratory that is licensed by the Arizona Department of Health Services (ADHS) Office of Laboratory Licensure and Certifications. Sample analyses conducted in the field at the time of collection (e.g., temperature, pH, etc.) may be performed by the Permittee (including contractors retained by City of Tempe) utilizing instrumentation appropriate for the analyses or measurements. The Permittee shall use an analytical method 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) with test methods with Method Detection Limits (MDLs) and Minimum Levels (MLs) that are lower than the applicable SWQS. If all MDLs or MLs are higher than these standards, then the Permittee shall use the test method with the lowest MDL or ML available. If all published MDLs are higher than the standard, the Permittee shall utilize the EPA-approved analytical method with the lowest published MDL.

6.0 REPORTING REQUIREMENTS

6.1 Discharge Monitoring Report

The City of Tempe shall report wet weather analytical monitoring results on Discharge Monitoring Report (DMR) to the myDEQ electronic portal provided by ADEQ, when available. DMRs shall be submitted within 30 business days of

receipt of all lab reports for all methods at each outfall. The reports required to be electronically submitted include the following:

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

6.2 Annual Report

The City of Tempe shall complete the annual report by September 30th each year of the permit term. The annual report must be submitted on a form provided by ADEQ and must include the information provided in Appendix A of this permit. If electronic reporting becomes available during the permit term, ADEQ will notify the City of Tempe that all future annual reports must be submitted electronically through myDEQ. The reporting period for the annual report will be July 1 through June 30. The electronic reporting deadline for MS4 annual reports is December 21, 2025.

6.3 Renewal Application

[A.A.C. R18-9-B904(B)]

The City of Tempe shall complete the renewal application requirements as specified in Appendix B of this permit. All information in Appendix B must be submitted to ADEQ at AZPDES@azdeq.gov 180 days prior to the permit expiration date.

6.4 Non-filer Reporting

The City of Tempe shall report non-filers to ADEQ at AZPDES@azdeq.gov within 30 business days of identification. This report shall include, at a minimum, the facility name and location of the non-filer and the subject line must include "Non-filer – MS4 Permittee Name – AZPDES Permit Number."

7.0 STANDARD AZPDES PERMIT CONDITIONS AND NOTIFICATIONS

Standard permit conditions in Section 7.0 are consistent with the permit provisions required under 40 CFR 122.41 and A.A.C. R18-9-A905(A)(3).

7.1 Duty to Reapply

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

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

7.2 Signatory Requirements

[A.A.C. R18-9-A905(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 both.

All reported 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 paragraph 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.

7.3 Duty to Comply

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

The City of Tempe 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 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 City of Tempe 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 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.

7.4 Need to Halt or Reduce Activity Not a Defense

[A.A.C. R18-9-A905(A)(3)(a) incorporates by reference 40 CFR 12.41(c)]

It shall not be a defense for the City of Tempe 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.

7.5 Duty to Mitigate

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

The City of Tempe 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.

7.6 Proper Operation and Maintenance

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

The City of Tempe 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 City of Tempe to achieve compliance with the conditions of this permit and the City of Tempe'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 City of Tempe when the operation is necessary to achieve compliance with the conditions of the permit.

7.7 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 City of Tempe for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

7.8 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.

7.9 Duty to Provide Information

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

The City of Tempe 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 City of Tempe shall also furnish to ADEQ upon request, copies of records required to be kept by this permit.

7.10 Inspection and Entry

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

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

1. Enter upon the City of Tempe's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the terms of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring or control equipment), practices or operations regulated or required under this permit; and
4. 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.

7.11 Monitoring and Records

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

1. Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity.
2. The City of Tempe 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 (3) 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. City of Tempe must submit any such records to ADEQ upon request.
3. Records of monitoring information must include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. The time(s) the analyses were initiated;

- e. The individual(s) who performed the analyses;
 - f. References and written procedures, when available, for the analytical techniques or methods used;
 - g. The analytical techniques or methods used; and
 - h. The results of such analyses.
4. 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.

7.12 Reporting Requirements

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

1. **Anticipated Noncompliance**
The City of Tempe 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.
2. **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.
3. **Monitoring Reports**
Monitoring results must be reported at the intervals specified elsewhere in this permit.
 - a. Monitoring results must be reported on a Discharge Monitoring Report (DMR) provided online by ADEQ.
 - b. If the City of Tempe 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 (if available), or submitted as a separate report.
 - c. 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.

4. 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.

5. Other noncompliance

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

6. Other information

Where the City of Tempe 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 City of Tempe shall promptly submit such facts or information.

7.13 Bypass

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

Definitions:

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

Bypass not Exceeding Limitations:

The City of Tempe 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:

- a. Anticipated bypass. If the City of Tempe 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.
- b. Unanticipated bypass. The City of Tempe shall submit notice of an unanticipated bypass as required in Section 7.14.

Prohibition of bypass:

- a. Bypass is prohibited, and ADEQ may take enforcement action against the City of Tempe for bypass, unless:
 - i. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - ii. 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
 - iii. The City of Tempe submitted notices as required in subsection above.
- b. ADEQ may approve an anticipated bypass after considering its adverse effects if the Department determines that it will meet the three conditions listed above.

7.14 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. 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.

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:

- a. An upset occurred and that the operator can identify the cause(s) of the upset;
- b. The permitted facility was at the time being properly operated;
- c. The City of Tempe submitted notice of the upset as required; and
- d. The City of Tempe complied with any remedial measures required.

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

7.15 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 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.

7.16 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.

7.17 State or Tribal Law

[Pursuant to Clean Water Act Section 501]

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

Draft

8.0 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 protected surface waters. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage [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 combined 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 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 refers to any practice or method used to prevent or reduce the discharge of pollutants to protected surface waters. Control measures include, but are not limited to best management practices. Control measures can include other methods such as the installation, operation, and maintenance of structural controls and treatment devices.

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).

Field Screening Point means a location other than an outfall, within a conveyance of a MS4 where either visual observation or sampling is performed.

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.

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(b)(5)]

Maximum Extent Practicable (MEP) means maximum extent practicable, the technology-based discharge standard for municipal separate storm sewer systems to reduce pollutants in storm water discharges.

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. R-9-14-615(C)(7).

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)].

Not-Attaining Water means a surface water 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 R-18-11-604(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)].

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

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 water of the U.S. 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. See 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)]

Wasteload 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 limitations. (See 40 C.F.R. 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)].

Appendix A: Annual Report

1. The City of Tempe shall submit one (1) copy of the most recent SWMP.
2. The City of Tempe shall provide the costs of the necessary capital and operation and maintenance expenditures necessary to accomplish the activities required of the permit.

2.0 Legal Authority

3. Did the City of Tempe develop, maintain, and enforce adequate legal authority to control the discharge of pollutants into and from its MS4, per 2.0?

3.0 Arizona Surface Water Quality Standards (SWQS)

4. How many parameters had SWQS exceedances from discharges to protected surface waters.? (Expressed in numbers.)

4.1 Program Implementation

5. Did the City of Tempe include the 4.1.A.1-2 required items in the SWMP?

4.2 Public Education and Outreach

6. Did the City of Tempe provide outreach and education to the public on the stormwater program issues and requirements, per 4.2.A?

- a. List the target groups and topics used for outreach and education.

7. Did the City of Tempe evaluate and measure the understanding and adoption of the targeted behaviors for at least one target audience in at least one subject area by the end of year four (4), per 4.2.A.3?

8. Did the City of Tempe use the results of the evaluation to direct future education and outreach resources most effectively, as well as to evaluate changes in adoption of the targeted behaviors by the end of year four (4), per 4.2.A.3?

9. Attach, as part of your 4th year annual report, an evaluation of the target audience in a subject area and any changes adopted in response to targeted behaviors in order to be more effective, per 4.2.A.3.a.

4.3 Public Involvement and Participation

10. Did the City of Tempe host an annual public SWMP workshop, per 4.3.A?

11. Did the City of Tempe create opportunities for citizens to participate in the implementation of stormwater controls (e.g., stream clean-ups, storm drain stenciling, volunteer monitoring, disposal of household hazardous waste, educational activities, and facilitation of Adopt-A-Wash, Adopt-A-Park, and Adopt-A-Street litter control activities), per 4.3.B?
12. Did the City of Tempe provide and publicize a reporting system to facilitate and track public reporting of spills, discharges and/or dumping to the MS4 on a continuous basis, per 4.3.C?
13. Was the current SWMP and annual report posted no later than thirty (30) days of the due date of the annual report or, if in the first year of permit term, was the current SWMP and latest annual report posted on the City of Tempe's website, per 4.3.D?

4.4 Illicit Discharge Detection and Elimination (IDDE)

14. Did the City of Tempe continue to implement a program to detect, investigate, and eliminate non-stormwater discharges including dumping and spills, into its system, per 4.4.A?
15. Did the City of Tempe maintain an inventory of all known MS4 outfalls, interconnections with other MS4s, and those major outfalls identified by the City of Tempe as priority for illicit discharges or other non-stormwater flows, per 4.4.C?
16. Did the City of Tempe provide training for new employees with direct stormwater responsibilities at least one (1) time per year, per 4.4.D.1?
 - a. Document if no new employees were hired during the reporting year.
17. Did the City of Tempe inspect all "priority" major outfalls or field screening points (if applicable), per 4.4.E.2?
18. Did the City of Tempe inspect approximately 20% of the remaining (i.e., non-priority) major outfalls and field screening points (if applicable), per 4.4.E.3?
19. Did the City of Tempe conduct ongoing dry weather field screening of major outfalls and field screening points (if applicable), per 4.4.E.4?
20. Did the City of Tempe investigate (or refer to the appropriate agency with authority to act) within five (5) days at least 90% of all reports of illicit discharges to the City of Tempe's MS4, per 4.4.F?

21. Did the City of Tempe initiate corrective actions and/or enforcement mechanisms to eliminate any illicit discharge detected within 60 days of identification of the source, per 4.4.G?
22. The City of Tempe shall submit one (1) copy of their 4.4.I.2 summary of IDDE activities in tabular format.

4.5 Municipal Facilities Pollution Prevention and Good Housekeeping Practices

23. Did the City of Tempe provide new employee training at least one (1) time per year to employees with direct stormwater responsibilities, per 4.5.A.1?
 - a. Did the City of Tempe provide refresher training for existing employees directly involved in these activities at least once every two (2) years, per 4.5.A?
 - b. Document if no new employees were hired during the reporting year.
24. Did the City of Tempe update and maintain an inventory, database, list, map, or other equivalent tracking system of facilities owned and operated by the City of Tempe that have the potential to discharge stormwater pollutants to the MS4, per 4.5.B.1?
25. The City of Tempe shall submit one (1) copy of their 4.5.B.1 inventory list as an attachment.
26. Did the City of Tempe inspect approximately 20% of all facilities identified in 4.5.B.1, per 4.5.C.1?
27. Did the City of Tempe continue to implement practices, policies, and procedures to reduce stormwater impacts associated with runoff from all lands owned or maintained by the City of Tempe, per 4.5.D?

4.6 Industrial and Commercial Sources (Non-municipally owned)

28. Did the City of Tempe provide new employee training at least one (1) time per year to employees with direct stormwater responsibilities, per 4.6.A.1?
 - a. Did the City of Tempe provide refresher training for existing employees directly involved in these activities at least once every two (2) years, per 4.6.A?
 - b. Document if no new employees were hired during the reporting year.

29. Did the City of Tempe update and maintain an inventory, database, list, map, or other equivalent tracking system of private commercial and industrial sites that discharge stormwater pollutants to the MS4, per 4.6.B.1?
30. The City of Tempe shall submit one (1) copy of their 4.6.B.1 Inventory.
31. Did the City of Tempe develop a mechanism to identify and document facilities subject to the MSGP that did not file a timely NOI and contain a means of communication with operators of these facilities to inform them of their responsibility to comply, per 4.6.B.2?
32. Did the City of Tempe inspect approximately 20% of all facilities identified in 4.6.B.1, per 4.6.C?
33. Is the City of Tempe implementing an effective compliance and enforcement program that incorporates escalating action for violations of Tempe stormwater requirements, ordinance, or code, per 4.6.D?

4.7 Construction Sites

34. Did the City of Tempe provide new employee training at least one (1) time per year and provide refresher training for existing employees directly involved in these activities at least once every two (2) years, per 4.7.A?
 - a. Did the City of Tempe provide refresher training for existing employees directly involved in these activities at least once every two (2) years, per 4.7.A?
 - b. Document if no new employees were hired during the reporting year.
35. For construction projects that will result in land disturbance of one (1) acre or more (including those less than one (1) acre, but are part of a larger common plan of development), did the City of Tempe review at least 80% of plans for new development and redevelopment, per 4.7.B?
36. How many applications for new development and redevelopment projects one acre or greater discharging to the MS4 were reviewed, per 4.7.B?
37. Did the City of Tempe develop, update, and maintain a comprehensive inventory, per 4.7.C.1?
38. Did the City of Tempe develop a mechanism to identify and document facilities subject to the CGP that did not file a timely NOI (does not apply to sites with waivers or No Discharge Certificates) and contain a means of communication with

operators of these facilities to inform them of their responsibility to comply, per 4.7.C.2?

39. Did the City of Tempe inspect construction sites identified in the inventory at least one (1) time every three (3) months for highest priority sites and at least one (1) time every six (6) months for lowest priority sites, based on the prioritization schedule requirements, per 4.7.E.1?
40. Did the City of Tempe conduct follow-up inspections of construction sites to ensure stormwater deficiencies/concerns/non-compliance identified as a result of a routine inspection were corrected, per 4.7.E.2?
41. Did the City of Tempe continue to require that plans include erosion and sediment control requirements protective of water quality, per 4.7.F?

4.8 Post-Construction

42. Did the City of Tempe provide new employee training at least one (1) time per year to employees with direct stormwater responsibilities, per 4.8.A.1?
 - a. Did the Permittee provide refresher training for existing employees directly involved in these activities at least once every two (2) years, per 4.8.A?
 - b. Document if no new employees were hired during the reporting year.
43. Did the City of Tempe continue to implement a program to control stormwater discharges from areas of new development and redevelopment after construction is complete, including adequate post-construction BMPs, ordinances and policies, per 4.8.B.1.a?
44. Attach, as part of your first year annual report, the proposal and supporting documentation for three (3) areas to perform the retrofit feasibility assessment, per 4.8.B.2?
45. For the fourth year annual report, was a feasibility assessment developed to retrofit existing developed sites that are impacting water quality developed, per 4.8.B.3?
46. Attach, as part of your fourth year annual report, the 4.8.B.3 retrofit feasibility assessment.
47. Did the City of Tempe inspect 90% of sites discharging to the MS4 that received city permits within one (1) year after construction completion to determine the compliance of their post-construction stormwater controls, per 4.8.C.2?

Appendix B: Renewal Application

[A.A.C. R18-9-B904(B)]

The following information is required to be submitted to ADEQ at least 180 days prior to expiration of this permit. This comprehensive document shall serve as the renewal application for the City of Tempe.

- a. The name, address, and telephone number of the MS4;
- b. The name, address, and telephone number of the contact person;
- c. The status of compliance with permit conditions, including an assessment of the appropriateness of the selected best management practices and progress toward achieving the selected measurable goals for each minimum measure;
- d. Summary of results of any information collected and analyzed, including monitoring data, if any;
- e. A summary of the stormwater activities planned for the next reporting cycle;
- f. A change in any identified best management practices or measurable goals for any minimum measure; and
- g. Notice of relying on another governmental entity to satisfy some of the permit obligations.