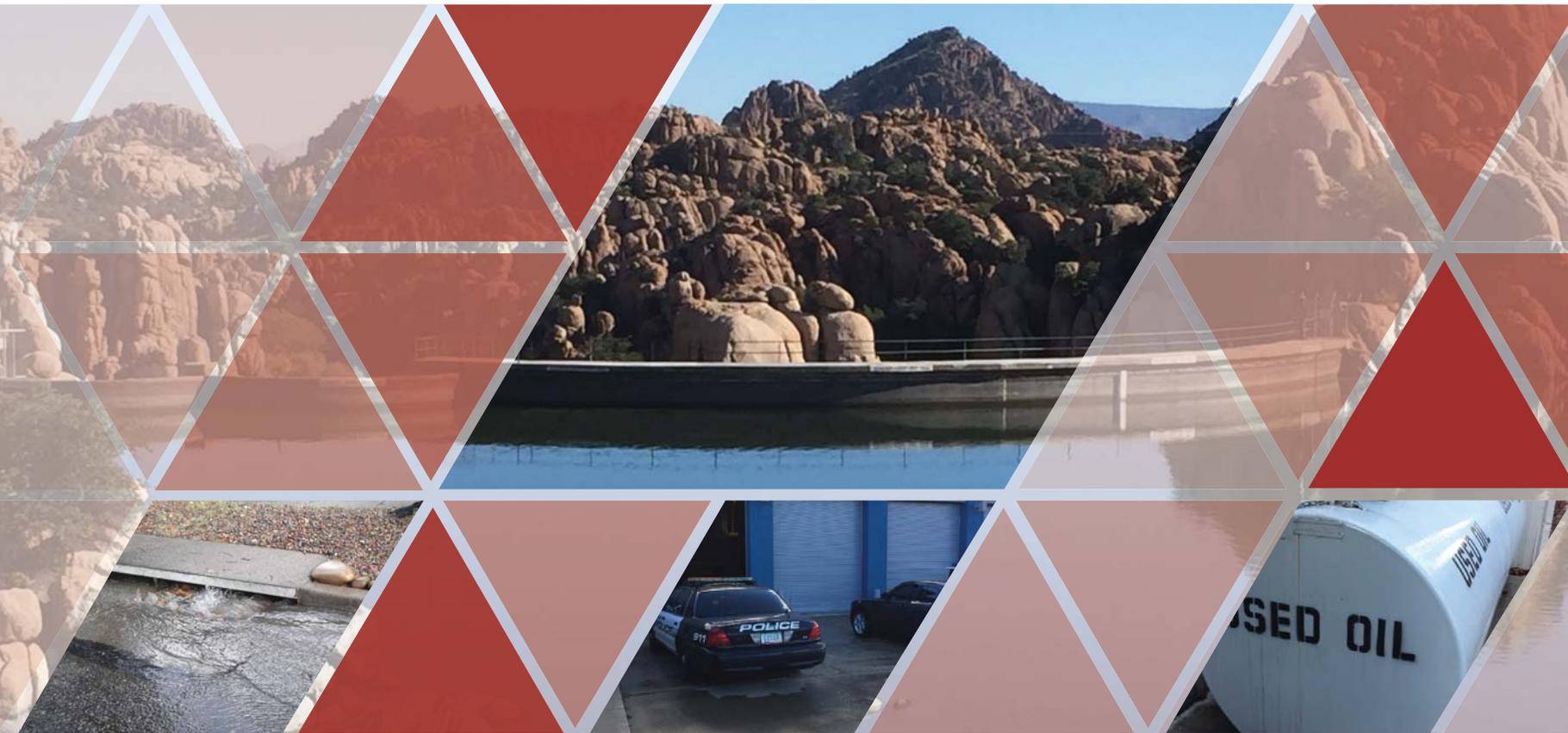


# STORMWATER MANAGEMENT PLAN (SWMP)

for compliance with  
Small Municipal Separate Storm Sewer System

Permit No. AZG2016-002

Issued on: September 30, 2016



**Prepared For**  
City of Prescott  
433 North Virginia Street  
Prescott, Arizona 86301



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Arizona Pollutant Discharge Elimination System  
Small Municipal Separate Storm Sewer Systems Permit 2016  
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March 2017

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## 1.0 REGULATORY PROGRAM INFORMATION

Phase I of the U.S. Environmental Protection Agency's (EPA) municipal stormwater program was promulgated in 1990 under the authority of the Clean Water Act (CWA). Phase I relied on the National Pollutant Discharge Elimination System (NPDES) permit coverage to address stormwater runoff from medium and large municipal separate storm sewer systems (MS4s), serving populations of 100,000 or greater.

The Stormwater Phase II Final Rule (promulgated December 8, 1999) was the next step in the EPA's efforts to preserve, protect, and improve the nation's water resources from polluted stormwater runoff. The Phase II program requires additional operators (small MS4s in urbanized areas) to implement programs and practices to control polluted stormwater runoff, through the NPDES permit program. Recently, the State of Arizona has received primacy for the federal NPDES program and is charged with implementing the program, now called AZPDES. The program requires Phase II municipalities to develop a Stormwater Management Program/Plan (SWMP). The current AZPDES permit can be found in Attachment L.

The City of Prescott (City) must develop and implement a SWMP as required by the Arizona Department of Environmental Quality's (ADEQ) Arizona Pollutant Discharge Elimination System (AZPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4) to Waters of the United States No. AZG2016-002 (Permit). The Permit was issued by ADEQ effective on September 30, 2016 and supersedes Permit No. AZG2002-002 issued by ADEQ on December 19, 2002.

This SWMP has been developed in accordance with 40 CFR Part 122; Arizona Revised Statutes (ARS) Title 49, Chapter 2, Article 3.1; and Arizona Administrative Code (AAC) Title 18, Chapter 9, Articles 9 and 10. The SWMP has been prepared to meet the requirements identified Permit section 5.1 and is certified according to Permit section 9.9.

This SWMP outlines the City's program to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP), to protect water quality, and to satisfy the appropriate requirements of the Clean Water Act (CWA) in accordance with ADEQ's Stormwater Phase II program. This goal is achieved through implementing six minimum control measures (MCMs):

- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination (IDDE) Program
- Construction Activity Stormwater Runoff Control
- Post-Construction Stormwater Management
- Pollution Prevention and Good Housekeeping

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

- Fiscal Resources

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

## **2.0 SETTING**

The City of Prescott was incorporated in 1883 and the Prescott City Charter was adopted as the “constitution” in 1958. Prescott covers 41.3 square miles in the mountains of north central Arizona, approximately 96 miles north of Phoenix. Prescott, the county seat of Yavapai County, is located near the towns of Chino Valley, Prescott Valley and Dewey/Humboldt. Taken together the local municipalities are locally referred to as the Quad Cities region. The City is located at Latitude N34° 32' 23.9" and Longitude W112° 28' 4.3" and is approximately 5,400 feet above sea level. The local climate is mild with an average summer temperature of 80°F and an average winter temperature of 57°F. Annual precipitation averages approximately 19 inches per year, 11 inches per year as snowfall. The City of Prescott has experienced steady growth over the past few decades, increasing from 16,888 in 1975 to 39,843 in 2010 (964 people per square mile).

## **3.0 EXISTING STORMWATER SYSTEM**

The City’s stormwater system is comprised of a system of municipally owned or operated curbs, gutters, inlets, catch basins, underground pipes, retention basins, natural washes and man-made channels. The Public Works Department and Engineering Services Department are responsible for the maintenance, design, and construction of streets and drainage facilities and infrastructure. Divisions within the Department are responsible for various aspects of construction, inspection, and maintenance. The Streets Division handles runoff management, street drainage system maintenance, and street maintenance. The Department of Environmental Services, Sanitary Sewer Division, maintains the sanitary sewer system. The divisions are located at the Prescott Engineering Building at 433 N. Virginia Street, Prescott, Arizona 86301.

## **4.0 RECEIVING WATERS**

Prescott is located in the Upper Granite Creek Watershed which is mostly mountainous. Several tributaries feed Watson Lake Reservoir and Willow Creek Reservoir which discharge into Granite Creek to the northeast and ultimately into the Verde River. Four waters (Miller Creek, Butte Creek, Manzanita Creek, and Granite Creek) and two water bodies (Watson Lake Reservoir and Willow Creek Reservoir) are currently listed on ADEQ’s ‘Impaired and Not Attaining Waters Lists’. See Attachment K of the SWMP for the analytical monitoring program for the impaired waters.

## **5.0 LEGAL AUTHORITY**

In 2007, Prescott amended the City Code, adding a section regarding stormwater regulations (Title XVI Street and Utility and Drainage Regulations). Prescott manages stormwater runoff

through the enactment of its ordinance to control construction site erosion and sediment, enforce illicit discharges and illegal connections, and manage post construction stormwater runoff to the MS4 (See Attachment I).

## **5.1 ENFORCEMENT**

To comply with the Permit, the City has created an Enforcement Response Plan (ERP). The ERP outlines the procedures the City designees will follow to enforce its stormwater ordinance. Escalation measures presented in the ERP are briefly described below, and the ERP is available in Attachment C.

The City applies escalating enforcement action depending on the severity of the violation and the violator's willingness to comply. The enforcement steps used achieve compliance with the ordinance are listed below in order:

1. A verbal warning.
2. Violation Notice.
3. City Code Violation Citation.
4. The liable party then has the right to appeal the ticket at a City Court Hearing. The Violation Ticket is not to exceed \$2,500, per violation, per day. In addition, if found guilty they will be liable to any associated costs to remedy the situation.

If the violator takes insufficient actions, the City may proceed with its abatement process as described in the City Code. The City will perform the minimum corrective actions to restore compliance and the violator will be responsible for the associated costs to reimburse the City.

## **6.0 MS4 MAPPING**

The City maintains a Geographic Information System (GIS)-based stormwater infrastructure map / database to manage its storm sewer system information. The database includes the locations of stormwater conveyances, municipal stormwater infrastructure, outfalls and screening locations. MS4 mapping is routinely updated through activities performed under the IDDE, Construction and Post Construction MCMs. Updates to the MS4 map are performed on an on-going basis throughout each year.

Geographical Information System (GIS) operation and maintenance is part of the Information Technology Department (IT). The IT Department maintains all applicable spatial information and mapping for those City operations that require such data, including Global Positioning Systems (GPS) and other existing or planned GEO-based systems, and manages the data warehouse of this information. Continued mapping of Prescott's stormwater system and receiving waters will be coordinated by the Public Works Department.

Currently the City has mapped approximately 70% of the storm system. All above-ground infrastructure has been mapped, and sub-ground infrastructure is being mapped as it is discovered. Those newly constructed storm drain infrastructure features are being digitized as construction As-Built plans are submitted to the City. Outfalls have been determined to be approximately 80% mapped. Due to the number of water bodies that flow through the City, outfalls

are regularly discovered and mapped during inspections and IDDE investigation. Mapping is anticipated to be complete by June of 2018.

## **7.0 MINIMUM CONTROL MEASURES**

This section outlines the six MCMs. Implementation of these MCMs are required by the Permit. The six minimum control measures are:

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination (IDDE) Program
4. Construction Activity Stormwater Runoff Control
5. Post-Construction Stormwater Management
6. Pollution Prevention and Good Housekeeping

Each MCM is described in more detail in the following sections. Each MCM contains the responsible department(s) and a number of Best Management Practices (BMPs) selected by the City to reduce stormwater pollutants.

A table summarizing each MCM, BMP, and frequency or timeline are at the end of this document in the Tables section. The City Organizational Chart can be found in Attachment E.

### **7.1 MCM-1: Public Education and Outreach**

This section is intended to meet the requirements outlined in Permit section 6.4.1. According to the 2010 census, the City is broadly characterized as:

- A growing population of 39,843 residents
- A population comprised of approximately 92.1% white alone
- 13.6% of persons are under 18 years old
- 38.5% of persons hold a bachelor's degree or higher

The City of Prescott currently provides public education on City services and maintains several outreach programs to coordinate and distribute information to the local community. Due to the low population percentage, minority populations were not directly considered in the planning process for public education and outreach.

**Responsible Department:** Public Works Department

**Table 1** identifies the BMPs, schedule, measurable goals and responsible party(s) for the Public Education and Outreach minimum control measure. A summary of these BMPs is provided below.

### **7.1.1 BMP 1-1: Explore Partnership Opportunities**

The City of Prescott will research opportunities to partner with other governmental entities, and non-governmental organizations, to pursue cost-effective implementation mechanisms to satisfy public outreach requirements. Existing programs will be carefully evaluated to maximize the potential for integration of implementation.

### **7.1.2 BMP 1-2: Municipal Website Information**

The City of Prescott will use the municipal website to inform the public about the SWMP. It will include general stormwater information, as well as topics of interest to the general public such as litter control, and proper management of pesticides, fertilizers, used oil, and household hazardous waste. The website will also contain a link to the most current SWMP and Notice of Intent (NOI).

### **7.1.3 BMP 1-3: Outreach to Homeowners**

The City of Prescott has identified residential homeowners as a target group for educational outreach and implementation of this SWMP. This BMP will inform residential homeowners and citizens of Prescott of ways they can reduce pollution and improve the quality of area waters.

Methods to specifically target homeowners include creating inserts for utility bills describing stormwater quality and drainage issues and mailing informational brochures.

The Prescott ConneXion is a combined library and city service center located at the Prescott Gateway Mall. The ConneXion is a city stop that contains information about the region and provides opportunity to check out or reserve a book, read a magazine, or surf the web on one of six public internet terminals. The ConneXion features a children's area and a private meeting room. The Prescott ConneXion may be incorporated as a common location for SWMP literature.

### **7.1.4 BMP 1-4: Outreach to Businesses**

The City of Prescott has identified commercial businesses as a target group for educational outreach and implementation of this SWMP. This BMP will inform business operators in Prescott of ways they can reduce pollution and improve the local stormwater quality via informational brochures.

## **7.2 MCM-2: PUBLIC INVOLVEMENT AND PARTICIPATION**

This section is intended to meet the requirements outlined in Permit section 6.4.2. ADEQ requires public participation/involvement as one of the six minimum control measures for effective implementation of the Phase II stormwater regulations. Citizen participation in stormwater management planning allows for broader public support, shorter implementation schedules, and utilization of free expertise and intellectual resources of the community. Public participation and involvement in stormwater planning is, therefore, an essential element of the Phase II requirements.

**Responsible Department:** Public Works Department

**Table 2** identifies the BMPs, schedule, measurable goals and responsible party(s) for the Public Participation/Involvement minimum control measure. A summary of these BMPs is provided below.

### **7.2.1 BMP 2-1: Implement Public Notice**

To meet Permit requirements, during the renewal of this permit the City will submit a complete NOI to ADEQ who will review, approve and distribute the NOI for public review and comment for a 30-day public comment period. Over this time the public will have the opportunity to provide input on the management program. This process will meet public notice requirements. The City will also provide a copy of its SWMP, NOI, and the annual permit reports through the webpage and in City Hall and will follow all public notice requirements as required by permit.

### **7.2.2 BMP 2-2: Stormwater Volunteer Opportunities**

The City of Prescott will identify suitable opportunities for area volunteers to participate in stormwater activities and will develop support materials and provide them to interested parties. These volunteer opportunities may include storm drain stenciling, volunteer monitoring, tree planting campaigns, Adopt-a-Stream, and stream clean-up programs.

The measurable goal for implementation of BMP 2-2 is to coordinate the opportunities and provide support materials to interested volunteers. The City may develop partnerships with existing organizations such as the Master Watershed Stewardship (MWS) program at the University of Arizona Cooperative Extension which provides training and opportunities for volunteers within local watersheds, Prescott Creeks Preservation Association who have programs for volunteers' participation in protecting, restoring, and monitoring the Granite Creek Basin, and the Granite Creek Watershed Improvement Council. Volunteer activities will occur annually, and documentation of the volunteers involved and activities performed will be maintained. Targeted groups will be of all ages and will include schools, homeowner's associations, and neighborhoods.

### **7.2.3 BMP 2-3: Procedure for Receiving and Reviewing Public Comment**

The City of Prescott will establish a procedure for the public to provide comments on stormwater related issues. As of February 8, 2017, Prescott has established a hotline for all code enforcement related issues. Citizens can call the hotline, or report code violations online. Stormwater related complaints will be directed to the Environmental Coordinator. A report will be initiated which lists the caller's information; the type of concern; the investigation of the concern; any action taken; any corrective measure(s) required; and any reporting back to the caller that is done. The Environmental Coordinator will decide the appropriate response. All complaints and their resolutions shall be logged.

The measurable goal for implementation of BMP 2-3 is to maintain a hotline for public comments. Recorded comments received through the City's hotline or website are reported annually.

City Council meetings are also open to the public. Prescott's City Council convenes the second and fourth Tuesdays of each month, at 3 p.m. in the City Hall Council Chambers, 201 S. Cortez Street, to study agenda issues and take action on items such as: informational workshops;

allocation of funds; award of bids, contracts, leases and agreements; public hearings on budget, improvement districts, bond expenditures; planning and zoning cases; special use permits; approval of minutes; appointment of board and commission members; various public hearings; and the calling of executive sessions.

### **7.3 MCM-3: ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) PROGRAM**

This section is intended to meet the requirements outlined in Permit section 6.4.3. Prescott will implement the following five BMPs to meet the regulatory requirements, and minimum control measures, for illicit discharge detection and elimination

The Streets Division is responsible for the day-to-day maintenance of approximately 400 lane-miles of paved streets and the various drainage structures and bridges around the City. This includes patching and crack sealing, minor repairs, street sweeping, snow removal, street striping, curb and gutter and valley gutter repair, drainage-way maintenance, dirt street grading, sign maintenance, and support to other departments as necessary. Due to the mobile nature of their jobs, the Streets Department will be key in identifying and reporting potential illicit discharges during their normal course of work.

**Responsible Departments:** Public Works Department

**Table 3** identifies the BMPs, schedule, measurable goals and responsible party(s) for IDDE minimum control measure. A summary of these BMPs is provided below.

#### **7.3.1 BMP 3-1: Eliminating Illicit Discharges**

In conjuncture with education and training, the City implements an identification and reporting process for responding to potential illicit discharges to and from the MS4.

Potential illicit discharges are identified primarily through dry and wet weather screening, regular City maintenance activities, and reports from employees and/or complaints from the public. Regardless of the reporting route, Illicit Discharges are investigated according to the IDDE Standard Operating Procedures (SOP) (see Attachment J).

#### **7.3.2 BMP 3-2: Dry Weather Screening**

Due to the large number of outfalls within the MS4 the City intends to inspect 20% of known stormwater outfalls during dry weather as a part of the overall illicit discharge detection and elimination program. Illicit discharges found during inspections will be traced upstream and eliminated as expeditiously as possible. Facilities found to have illicit discharges will be re-inspected as necessary to verify no additional illicit discharges have occurred. See Attachment J for detailed IDDE Inspection/Investigation SOP.

#### **7.3.3 BMP 3-3: Wet Weather Monitoring**

While implementing the Wet Weather Monitoring Program, City staff will perform a visual inspection of 12 outfall locations (2 outfalls per impaired water), 2 times during each wet season.

For the purposes of wet weather monitoring, the summer and winter wet seasons are defined by the Permit as:

Summer wet season is June 1<sup>st</sup> through October 31<sup>st</sup>

Winter wet season is November 1<sup>st</sup> through May 31<sup>st</sup>

Due to available staff and safety concerns wet weather monitoring will only be conducted during normal business hours. The inspections will be documented on the “IDDE Inspection/Investigation Form” (See Attachment F). The City will maintain documentation of wet weather visual assessments for each annual report. See Attachment J for detailed IDDE Inspection/Investigation SOP.

### **7.3.4 BMP 3-4: Unpermitted Discharges**

The City actively works to identify unpermitted facilities and activities that are discharging to the MS4. To identify these facilities and activities the City will do the following:

For construction:

- Require each construction site permit applicant to provide a copy of the AZPDES CGP NOI.
- Train City inspectors on the identification and reporting of construction activities in the field that may not have a City construction permit. These sites will be reported back to Public Works, who will send the landowner notification that permits are required. The City will copy ADEQ on the notification.

Industrial Stormwater:

- Annually identify new industrial businesses with Standard Industrial Classification (SIC) Codes requiring Industrial stormwater permits. Reports will be pulled annually from the Business Licensing Department to verify if any applicable industrial facilities have applied for new business licenses. The City will then cross-reference the list of businesses using ADEQ’s MegaSearch database (<http://megasearch.azdeq.gov/megasearch/>). If the business is not listed, the City will mail a letter recommending the business owner contact ADEQ to determine if Multi-Sector General Permit (MSGP) coverage is required. The City will copy ADEQ on this notification.

The City will include a list of all facilities contacted throughout the year in the annual report.

### **7.3.5 BMP 3-5: Staff Training**

See SWMP section 8.0 for the training requirements for this MCM. All training schedules, responsibilities, and content are covered in section 8.0 of the SWMP.

## **7.4 MCM-4: CONSTRUCTION ACTIVITY STORMWATER RUNOFF CONTROL**

This section is intended to meet the requirements outlined in Permit section 6.4.4. Prescott will implement the following three BMPs to meet the regulatory requirements for construction site stormwater control. Implementation of these BMPs will meet or exceed the minimum control measures that are outlined in the Permit's requirements. These select BMPs will put special emphasis on controlling discharges associated with the impaired waters in the area including dissolved oxygen, nitrogen, E. coli, and pH.

Currently, the City of Prescott requires construction sites to comply with the state AZPDES Construction General Permit and nationally recognized building codes. Stormwater controls are included in the City's building/development inspections. Noncompliance can cause the City to stop building inspections, thereby halting construction until the situation is remedied. Development plans are reviewed for compliance and several divisions of the Engineering Services Department and Community Development Department conduct inspections.

**Responsible Departments:** Public Works Department and Community Development

**Table 4** identifies the BMPs, schedule, measurable goals and responsible party(s) for the Construction Activity Stormwater Runoff Control minimum control measure. A summary of the BMPs is provided below.

### **7.4.1 BMP 4-1: Construction Inventory**

The City maintains an active inventory of all construction sites disturbed 1 acre or more. Construction projects located within City boundaries are managed in TRAKiT software. Construction sites are regularly added to the software when site information is submitted for building permits. The list is managed appropriately, and searchable by site address.

### **7.4.2 BMP 4-2: Plan Review, Inspection and Enforcement Procedures**

The City reviews development plans to ensure stormwater compliance. Any construction activities in the City of Prescott that meet the criteria to require AZPDES Construction General Permit (CGP) coverage from ADEQ are required to submit an NOI, Authorization To Discharge (ATD), and Stormwater Pollution Prevention Plan (SWPPP) that has been prepared by a qualified person certifying its accuracy and completeness. A qualified person includes personnel (either the operator's employees or outside personnel) who are knowledgeable in the principles and practice of erosion and sediment controls and pollution prevention, who possess the skills to assess the effectiveness of any control measures selected to control the quality of stormwater discharges from the construction activity.

The Engineering Services Department will review the submitted documents and plans to assure compliance with all City Standards. If not approved, comments will be provided by staff, and those comments must be complied with on subsequent submittals. Although it may require multiple submittals to be approved, once the SWPPP is approved the contractor collects the approved SWPPP and pays the additional plan review fees if required.

Prior to collecting the City-approved SWPPP, the contractor must submit a NOI, and receive an ATD from ADEQ. This ensures that the contractor/operator has received permit coverage for work in the state of Arizona.

The City inspects construction sites for stormwater compliance a minimum of one time during the active phase of construction. Upon inspection, the Inspector will complete an inspection form and retain an electronic or hard copy for a minimum of 3 years. All inspections are tracked using the TRAKiT software. The inspector can upload inspection details as well as photos documenting potential deficiencies and site progress. Prior to final approval the project will be assigned to a City Inspector who will evaluate the effectiveness of the site's temporary sediment and erosion control measures, final stabilization, and overall compliance with the City's ordinances. Inspections will be ongoing throughout all phases of construction and will be conducted on all new construction projects.

If a non-compliance is identified during the inspection, the Inspector will notify the permittee and follow up within 7 days to ensure corrective actions have been made. If corrective actions have not been implemented the inspector will begin the enforcement process described in Attachment C.

In the case that a complaint is received for a potential stormwater non-compliance at or emanating from a construction site, the inspector will investigate the complaint within 7 days of receipt.

#### **7.4.3 BMP 4-3: Operator Education**

Currently the City reviews all site plans, including Erosion Control Plans, before approving the necessary building permits to begin construction. The City provides an informational brochure to inform the applicant of the City's Construction Site Stormwater Control requirements.

The City also conducts presentations in the form of Lunch N' Learn sessions to inform the construction community of requirements and BMPs to meet code requirements. Videos of past sessions are made available online at the City's website.

#### **7.4.4 BMP 4-4: Staff Training**

City inspectors will receive yearly training to ensure they are properly trained to perform comprehensive inspections of construction sites and follow the procedures established by the City for enforcement. Training logs including attendees and training topics will be kept in the SWMP (Attachment G). The number of attendees will also be reported in the annual report each year.

### **7.5 MCM-5: POST-CONSTRUCTION STORMWATER MANAGEMENT**

This section is intended to meet the requirements outlined in Permit section 6.4.5. Several City departments and divisions have programs in-place to manage and mitigate effects of growth. The City's Planning and Zoning Department regulates development and redevelopment in Prescott. Orderly physical growth of the community is promoted through compatible land uses and safe and acceptable standards in accordance with City Code. The Public Works Department Engineering Services Division is responsible for design, survey, inspection of public works projects, the review of developer designs, and inspection of subdivision construction (streets and

drainage). Prescott's Planning and Zoning Division coordinates permitting of land development within the Community Development Department. They review development designs to ensure streets and drainage improvements comply with City, state, and federal regulations, and coordinate floodplain activities to ensure compliance with the City's floodplain ordinance. Prescott codified a set of drainage regulations in the Land Development Code Sec. 6.6 to ensure adequate provisions are made for disposal of stormwater.

**Responsible Departments:** Public Works, IT, and GIS Departments

**Table 5** identifies the BMPs, schedule, measurable goals and responsible party(s) for the Post-Construction Stormwater Management minimum control measure. A summary of these BMPs is provided below.

### **7.5.1 BMP 5-1: Stormwater Control Inventory**

All stormwater control BMPs are inventoried in TRAKiT and GIS. Upon completion of projects, contractors are required to deliver site as-built plans to the City prior to final occupancy permit issuance. The as-built plans are then digitized by the City's GIS department. As-built plans are typically digitized as soon as possible after being submitted so that stormwater infrastructure remains up to date in case of an illicit discharge investigation.

The City of Prescott General Engineering Standards also requires an Operation & Maintenance Agreement for all Post-Construction BMPs. This Agreement is notarized and recorded with Yavapai County so that it is perpetually bound to the property. The City retains a copy to inform future inspections.

### **7.5.2 BMP 5-2: Enforcement Procedures**

See Attachment C for the enforcement procedure process.

### **7.5.3 BMP 5-3: Site Plan Review Procedures**

Site plans including all post-construction BMPs and onsite retention calculations are required to be submitted to the City as part of the development permit process (See BMP 4.2 Plan Review, Inspection and Enforcement Procedures). When as-built plans are submitted at the end of the project, post-construction BMPs and retention requirements are reviewed for accuracy. If installed BMPs and retention are insufficient final permit issuance will be withheld until corrected.

### **7.5.4 BMP 5-4: Staff Training**

The City will train all applicable employees sufficiently in order to comply with MCM-5. All training is contained within section 8 of this SWMP.

### **7.5.5 BMP 5-5: Inspections**

The City performs inspections on development sites to ensure compliance with the stormwater ordinance and Land Development Code. These inspections are conducted throughout the development of the site and when development has been completed. Final inspections by the

City ensure that as-built drawings meet the City's requirements and that the stormwater components have been built as designed.

## **7.6 MCM-6: POLLUTION PREVENTION AND GOOD HOUSEKEEPING**

Prescott promotes pollution prevention (P2) through a number of City departments and community programs, including the Engineering Services Department, the Community Development Department, and the Solid Waste Department.

The Community Development Department is charged with the responsibility for protecting and enhancing the community's environmental, economic, and cultural and historic resources. The Director of Community Development manages and directs the activities, services, programs, and projects of the divisions of Planning & Zoning, Building Inspections, Economic Development, and Historic Preservation.

Prescott's Public Works Department manages the City's water and wastewater; and the Solid Waste Department manages the solid waste program. The Public Works Department also maintains surface and groundwater facilities and coordinates water conservation and environmental monitoring programs to ensure a healthy water supply. The Utility Division manages Prescott's water supply and wastewater collection activities. Responsibilities of the Utility workers are to monitor water and sewer lines throughout the City, and to inspect utilities associated with construction projects. Solid Waste Department is responsible for residential and commercial waste collection and the City's curbside recycling program. The Department operates a Transfer Station at 2800 Sundog Ranch Road, a joint venture between the City of Prescott and Yavapai County, which also functions as a collection point for solid waste.

**Responsible Department:** Public Works Department

**Table 6** identifies the BMPs, schedule, measurable goals and responsible party(s) for the Pollution Prevention and Good Housekeeping minimum control measure. A summary of these BMPs is provided below.

### **7.6.1.1 BMP 6-1: Municipal Facility Inventory, Prioritization, and Inspection**

The Facilities Division maintains an inventory of municipally owned facilities. These facilities were prioritized based on the following aspects: if the facility was within 0.25 miles of an impaired water, if the facility or surrounding areas has a history of dry weather flows, the types of activities performed, and whether the facility is covered under another AZPDES regulatory program.

Site inspection schedule is determined by facility priority. More frequent inspections are performed on higher risk facilities. Low priority facilities are inspected once every 5 years. Medium priority facilities must be inspected annually while high priority facilities are inspected quarterly. See Attachment D for the prioritized municipal facility list.

### **7.6.1.2 BMP 6-2: Operations, Inspection, and Maintenance**

Street Sweeping – The City has an effective street sweeping program. All major arterial City streets are swept once per month. Streets are swept more frequently if excess debris from rain events or heavy winds build up along the roadways.

Vehicle Maintenance - The City's current vehicle maintenance is done at the Municipal Operations and Service Center. All maintenance is conducted indoors to prevent potential spilling of vehicle fluids. If a spill does occur City personnel implement dry clean up procedures to reduce the chances of spreading the pollutant further. City-owned vehicles are also washed at this location. All vehicle wash water is collected and treated in an onsite oil/water separator before discharging to the sanitary sewer.

### **7.6.1.3 BMP 6-3: Implement Pollution Controls**

The City has developed stormwater pollution prevention plans (SWPPPs) or Pollution Prevention Plans (P2 Plans) for multiple City facilities. The plans indicate best practices to use in the event of a spill, as well as materials storage and management practices. In addition, City staff maintains public catch basins. Furthermore, the City maintains MSGP permits for its required facilities.

### **7.6.1.4 BMP 6-4: Staff Training**

Training is required to ensure the BMPs under MCM 6 are performed correctly.

- All maintenance and fleet employees should, at a minimum, have a general knowledge of stormwater pollution prevention procedures.
- City Engineers and Facility Supervisors shall be trained on the specific facility inspection processes.

All training schedules, responsibilities, and content are covered in section 8.0 below.

## **8.0 TRAINING**

The City has a training program to address the training requirements for municipal employees outlined in Permit sections 6.4.3.10 (IDDE) and 6.4.6 (Pollution Prevention/Good Housekeeping for Municipal Operators). In addition to this permit-required training, the City also trains construction and post-construction inspectors and plan reviewers (Permit sections 6.4.4 and 6.4.5, respectively).

Employees targeted for training include: building site inspectors, construction plan reviewers, construction and post-construction inspectors, code enforcement officers, public safety personnel, field maintenance crews, and those employees who are involved in targeted operations and/or their supervisors. Training may also be provided to certain City contractors at the discretion of the Environmental Coordinator. The training program is based on the identified needs of the municipal employees. See table below for an outline of the training provided by the City.

Course	Audience	Frequency	Content
IDDE	<ul style="list-style-type: none"> <li>- Building Inspectors</li> <li>- Code Enforcement Officers</li> <li>- Fleet Mechanics</li> <li>- Maintenance Staff</li> </ul>	Annual	<ul style="list-style-type: none"> <li>- Stormwater quality basics</li> <li>- IDDE Identification and Resolution</li> <li>- Enforcement/Forms</li> </ul>
Municipal Facilities	<ul style="list-style-type: none"> <li>- City Engineers</li> <li>- Facilities Supervisors</li> <li>- Environmental Coordinators</li> <li>- Fleet Mechanics</li> </ul>	Annual	<ul style="list-style-type: none"> <li>- Facility Inspection</li> <li>- Pollution Prevention Practices</li> </ul>
Inspection	<ul style="list-style-type: none"> <li>- Engineering Plan Reviewers</li> <li>- Building Inspectors</li> <li>- Code Enforcement Officer</li> <li>- Contractors</li> <li>- Fleet Mechanics</li> <li>- Environmental Coordinator</li> </ul>	Annual	<ul style="list-style-type: none"> <li>- Basics</li> <li>- Enforcement/Forms</li> <li>- Construction/Post-construction Inspections</li> </ul>

## 8.1 TYPES OF TRAINING

The following sections describe the different types of storm water pollution prevention training conducted by the City.

### 8.1.1 Illicit Discharge Detection and Elimination (IDDE)

As outlined in Permit section 6.4.3.10, training is required to inform public employees of hazards associated with illegal discharges and improper disposal of waste. The goals of the program are to raise awareness, and prevent Illicit Discharges (IDs) and Illicit Connections (ICs), and to encourage employees to report IDs and ICs they may encounter. See Table 3, BMP 3.5 for IDDE staff training.

City management will also be trained on the use of the proper forms and process for reporting and follow up of illicit discharges (See Attachment F).

### 8.1.2 Municipal Facilities

As outlined in Permit section 6.4.6.f, training is required on the Operation & Maintenance (O&M) program for municipal operations. The goal of the program is to prevent or reduce pollutant runoff

from municipal operations due to activities including but not limited to: park and open space maintenance, fleet and building maintenance, new construction and land disturbances (see Permit sections 4.1.3 and 4.1.4), and stormwater system maintenance. Training topics include:

- Maintenance activities, schedules, and inspection procedures for controls to reduce floatables and other pollutants.
- Controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt and sand storage locations and snow disposal areas.
- Procedures to properly dispose of waste removed from the City and municipal operations (including dredge spoil, accumulated sediments, floatables, and other debris).

The City trains maintenance staff on proper pollution prevention controls annually, and City Engineers and Facility Supervisors are trained on the facility inspection processes at least once per permit cycle.

### **8.1.3 Construction Inspection**

Training is required for employees responsible for conducting construction site inspections and applying enforcement actions against construction site operators (Permit section 6.4.4.3). The goal of the program is to prevent or reduce pollutant runoff from construction sites. Inspectors are trained at least once per year on performing erosion and sediment control inspections.

### **8.1.4 Post-Construction Inspection**

Training is required for employees responsible for conducting post-construction site inspections and applying enforcement actions (Permit section 6.4.4.3). The goal of the program is to prevent or reduce pollutant runoff from new development and redevelopment projects. Public Works staff are trained at least once per permit cycle on performing inspections on post construction stormwater components.

## **8.2 TRAINING FREQUENCY**

The City conducts annual training for new employees and existing employees on the topics identified in SWMP section 8.1. Training is also provided when employees are assigned new operations, tasks, equipment, or protocols.

## **8.3 TRAINING METHOD**

Training may be provided by one or more of the following methods:

- Incorporate stormwater training into existing training programs (i.e. safety, materials handling, new employee orientation, etc.).
- Establish on-the-job awareness and reinforcement (stormwater pollution prevention posters, , articles on the City's internal website, etc.).
- Provide more customary training such as in-house workshops or presentations.

## 8.4 TRAINING MEASURABLE GOALS

The measurable goal for all training BMPs is to track and report the number of employees trained during each reporting period. All formal trainings will be documented with sign-in sheets and topics discussed.

## 9.0 ANALYTICAL MONITORING

The City discharges directly to Granite Creek, Willow Creek Reservoir and Watson Lake Reservoir. These water bodies are included on ADEQ's Impaired Waters List. Tributaries to these bodies of water are also impaired. See table below for water body, cause of impairment number of outfalls and associated Total Maximum Daily Load (TMDL).

Water Body	Cause of Impairment	Number of Outfalls	TMDL
Watson Lake Reservoir	Nitrogen, low dissolved oxygen, high pH	13	Yes
Willow Creek Reservoir	Ammonia	6	No
Granite Creek	E. Coli	84	Yes
Miller Creek	E. Coli	24	Yes
Butte Creek	E. Coli	25	Yes
Manzanita Creek	E. Coli	1	Yes

The City has developed a Water Quality Monitoring Plan to meet the requirements provided in section 5.1.g and 7.0 of the AZPDES permit. The Water Quality Monitoring Plan is a document that outlines the process and procedure for monitoring the pollutants in Prescott's impaired waters. The current Water Quality Monitoring Plan for Prescott is found in Attachment K.

The Hassayampa River is classified as impaired and within 10 miles of the City, but the MS4 does not discharge into this impaired reach.

## 10.0 REPORTING REQUIREMENTS

This section describes the reporting requirements as outlined in the Permit.

### 10.1 ANNUAL REPORT

The City will submit an annual report each year, on or before September 30, for each plan year (2017-2021) to ADEQ. During the process of completing the annual report, City personnel will also review the plan and arrange for updates as needed in accordance with the requirements in the Permit. The report will include:

- Status of compliance with permit conditions.
- Updates regarding mapping requirements (including percent complete).
- Assessment of the effectiveness of the BMPs.

- Assessment of the progress towards achieving the measurable goals for each of the six minimum control measures (including description of the targeted message for each audience, distribution method and dates, and program evaluation method).
- Description of the activities used to promote public participation.
- The status of any plans or activities required by the IDDE programs, including results of illicit discharge potential protocols, number of illicit discharges located, number of illicit discharges removed, and employee training.
- All outfall screening and monitoring data collected.
- The status of any plans or activities required by General Monitoring Program.
- Status of the construction runoff management including number of project plans reviewed, number of inspections, and number of enforcement actions.
- Status of stormwater management for new development and redevelopment.
- Status of ordinance development and review.
- Status of the operation and maintenance programs (6.4.6.1).
- Description of any changes in identified BMPs or measurable goals.
- Description of activities to be conducted during next reporting cycle.

## **10.2 DISCHARGE MONITORING REPORT**

The City will produce a Discharge Monitoring Report (DMR) to be included with its annual report. Inspection forms from all wet weather visual assessments performed as outlined in Permit section 7.3 MCM-3: IDDE will be included in the DMR. Should an illicit discharge be confirmed during an inspection, the City will also include the following information in the DMR:

- Location of discharge and its source(s)
- Description of the discharge
- Estimated illicit discharge duration
- Method of discovery
- Date of discovery
- Date of elimination
- Mitigation or enforcement action
- Responsible person (if known)
- Estimated volume

The DMRs will be submitted along with the annual report no later than September 30 of each year.

### **10.3 OTHER REPORTING**

Per Permit section 9.12 the City is required to:

- Notify ADEQ of any noncompliance to the Permit which may endanger human health or the environment;
- Give notice to ADEQ as soon as possible of any planned physical alterations or additions to permitted facilities;
- Give advance notice to ADEQ of any planned changes that may result in noncompliance with permit requirements, and
- Contact ADEQ if the City becomes aware that relevant information in the NOI or any other submitted report was not included.

### **11.0 PROGRAM ASSESSMENT**

The City will annually self-evaluate the SWMP for compliance with the Small General MS4 Permit. All BMPs will be assessed for appropriateness and effectiveness by analyzing their established goals. If necessary, ineffective or infeasible BMPs may be modified or replaced, however documentation of why the BMP was insufficient, expectation of the replacement BMP, and why the replacement BMP will meet the defined goals is required within the SWMP. Adding components or controls to BMPs can be done at any time. The self-evaluation will be included in Attachment H as well as submitted to ADEQ as part of the annual report.

### **12.0 RECORD KEEPING**

The City will keep all records pertaining to the Permit for a minimum period of 3 years. The records will include all reports, follow up documentation, inspection records, enforcement actions, and data used in the development of the NOI.

### **13.0 PLAN AVAILABILITY**

The Stormwater Management Plan is maintained online and accessible to the public. The SWMP can be viewed at <http://www.prescott-az.gov/services/engineering/storm.php>. A hardcopy of the City's SWMP is kept at the City Hall for public viewing during normal business hours.

## **TABLES**

**Table 1 – Public Education and Outreach BMPs**

<b>BMP Category</b>	<b>BMP Responsibility and Description</b>	<b>Measurable Goals (Audience)</b>	<b>BMP Frequency/ Timeline</b>
1.1 Explore Partnership Opportunities	<b>Public Works Department</b> City will research opportunities to partner with other governmental entities and non-governmental organizations to pursue cost-effective implementation mechanisms.	-Contact representative individuals for interest in participation. -Record number of yearly outreach efforts and result. (Public)	1 per year minimum
1.2 Municipal Website Information	<b>Information Technology</b> City will use website to provide residents with year-round access to SWMP information and BMPs. Website will also contain a link to current SWMP and NOI.	-Update website with links to current SWMP and NOI. -Record number of visitors to site each year. (Public)	1 per year minimum
1.3 Outreach to Homeowners	<b>Public Works Department</b> Inform citizens of stormwater practices by integrating stormwater education into existing activities.	Record number of outreach efforts. (Homeowners)	1 per year minimum
1.4 Outreach to Businesses	<b>Public Works Department</b> Inform commercial businesses of ways they can reduce pollution and improve the quality of area waters through brochures and posters.	Record number of outreach efforts. (Businesses)	1 per year minimum

**Table 2 – Public Involvement and Participation BMPs**

<b>BMP Category</b>	<b>BMP Responsibility and Description</b>	<b>Measurable Goals</b>	<b>BMP Frequency/ Timeline</b>
2.1 Implement Public Notice	<b>Public Works Department</b> The City will comply with state and local public notice requirements when implementing the SWMP.	Document public notice efforts.	1 per SWMP update
2.2 Stormwater Volunteer Opportunities	<b>Public Works Department</b> The City will provide opportunities for volunteers to participate in stormwater activities.	Record number of participants and type of volunteer activity.	1 per year minimum
2.3 Procedure for Receiving and Reviewing Public Comment	<b>Public Works Department</b> The City will investigate complaints submitted via telephone or website.	-Document the number of telephone and website complaints regarding stormwater related issues. -Document number of problems/incidents resolved.	Ongoing as complaints are received  City Shall respond within 24 hours or as soon as practicable for most complaints

**Table 3 – Illicit Discharge Detection and Elimination BMPs**

<b>BMP Category</b>	<b>BMP Responsibility and Description</b>	<b>Measurable Goals</b>	<b>BMP Frequency/ Timeline</b>
3.1 Eliminating Illicit Discharges	<b>Public Works Department</b> Identify and eliminate illicit discharges.	City will respond to illicit discharge reports. City will record number of responses each year and the outcome of each ID.	1 per year minimum
3.2 Dry Weather Screening	<b>Public Works Department</b> City will perform dry weather inspections of washes during dry periods in order to identify and follow-up with potential illicit discharges.	City will record number of inspections each year and document inspection findings	20% of known outfalls per year
3.3 Wet Weather Monitoring	<b>Public Works Department</b> Visual monitoring during wet seasons to identify illicit discharges.	City will record number of wet weather visual monitoring performed each year.	8 outfalls 2 per wet season per year minimum
3.4 Unpermitted Discharges	<b>Public Works Department</b> Identify operations needing AZPDES permits.	City will record number of operations verified and report unpermitted businesses and construction sites found, if any.	The City will compare AZPDES lists and known operations at least once per year
3.5 Staff Training	<b>Public Works Department</b> Train staff on identifying, reporting, and removing illicit discharges.	City will record number of employees who received IDDE training each year.	1 per year

**Table 4 – Construction Site Runoff Control BMPs**

<b>BMP Category</b>	<b>BMP Responsibility and Description</b>	<b>Measurable Goals</b>	<b>BMP Frequency/ Timeline</b>
4.1 Construction Inventory	<b>Public Works Department</b> Maintain an inventory of active construction sites.	Number of active sites each year	Ongoing
4.2 Plan Review, Inspection and Enforcement Procedures	<b>Public Works Department</b> Review plans, perform inspections, and conduct enforcement.	Document number of plan reviews. Maintain documentation of inspections performed. Maintain documentation of enforcement actions taken with resolutions.	1 inspection per construction site minimum.
4.3 Operator Education	<b>Public Works Department</b> Educate contractors on the City’s Construction Site Stormwater Control requirements.	Number of operators who received stormwater training each year.	Ongoing as development occurs
4.4 Staff Training	<b>Public Works Department</b> City inspectors trained on development site inspections and the City’s enforcement procedures.	Documentation of annual inspector training	Annually

**Table 5 – Post Construction Runoff Control BMPs**

<b>BMP Category</b>	<b>BMP Responsibility and Description</b>	<b>Measurable Goals</b>	<b>BMP Frequency/ Timeline</b>
5.1 Stormwater Control Inventory	<b>Public Works, IT and GIS Departments</b> Maintain GIS database of stormwater facility as-built plans.	City will record number of new entries to inventory each year. Maintain 100% of facilities in inventory.	Ongoing
5.2 Enforcement Procedures	<b>Public Works Department</b> Enforcement procedures for private infrastructure.	City will review enforcement procedures annually. (Number of violations will be recorded each year.)	1 per year minimum
5.3 Site Plan Review Procedures	<b>Public Works Department</b> Review development plans for compliance with the stormwater ordinance and Drainage Criteria Manual.	Number of Site Plans that have been reviewed	Ongoing as development plans are submitted
5.4 Staff Training	<b>Public Works Department</b> Staff trained on performing inspections on post construction stormwater components.	Document staff training	At least once per permit cycle
5.5 Inspections	<b>Public Works Department</b> Conduct inspections of development sites to ensure compliance with stormwater ordinance and Drainage Criteria Manual.	Document inspections	Ongoing

**Table 6 – Pollution Prevention/Good Housekeeping BMPs**

<b>BMP Category</b>	<b>BMP Responsibility and Description</b>	<b>Measurable Goals</b>	<b>BMP Frequency/ Timeline</b>
6.1 Municipal Facility Inventory, Prioritization and Inspection	<b>Field &amp; Facilities Services</b> Maintain list of inventoried facilities. Perform inspections based upon prioritized facilities.	Document facility inspections.	All facilities at least once per permit cycle.
6.2 Operations, Inspection and Maintenance	<b>Field &amp; Facilities Services</b> Continue Vehicle Maintenance and Street Sweeping programs.	Record number and frequency of maintenance actions each year. Record lane miles swept per year	Streets swept once per month minimum and city vehicles will be inspected once per year minimum.
6.3 Implement Controls	<b>Public Works Department</b> Continue to implement SWPPPs/P2 Plans at all City facilities. Continue P2 practices during catch basin maintenance	Review in-place P2 controls each year. Document review. Record number of public basins that are maintained each year.	Annually
6.4 Staff Training	<b>Public Works Department</b> Train for maintenance staff on maintenance pollution prevention. Train City Engineers and Facility Supervisors on the specific facility inspection processes.	Record number of employees receiving training. (Staff shall be trained once per year minimum.)	Maintenance staff - annually City Engineers and Facility Supervisors – once per permit cycle

**Table 7 - Program Management Requirements**

Reporting and Assessment	Frequency	Timeframe
Annual Report	Annually	September 30
Self-Evaluation	Annually	September 30
Discharge Monitoring Reports	Annually	September 30
Storm Sewer System Mapping – Keep maps current	Update as new stormwater systems come online	Ongoing
Enforcement Response Plan – Develop the Enforcement Response Plan addressing illicit discharge, construction site and post construction site program enforcement.	Implement ongoing	Within 24 months of obtaining coverage



**ATTACHMENT A**

**ACRONYMS AND DEFINITIONS**

## ACRONYMS

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

AAC	Arizona Administration Code
ADEQ	Arizona Department of Environmental Quality
ARS	Arizona Revised Statute
ATD	Authorization to Discharge
AZPDES	Arizona Pollutant Discharge Elimination System
BMPs	Best Management Practices
CGP	Construction General Permit
CWA	Clean Water Act
DMR	Discharge Monitoring Report
EPA	Environmental Protection Agency
ERP	Enforcement Response Plan
GIS	Geographic Information System
IC	Illicit Connection
ID	Illicit Discharge
IT	Information Technology
IDDE	Illicit Discharge Detection and Elimination
MCM	Minimum Control Measures
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
MSGP	Multi-Sector General Permit
MWS	Master Watershed Stewardship
NOI	Notice of Intent

NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
P2	Pollution Prevention
SIC	Standard Industrial Classification
SWMP	Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load

## DEFINITIONS

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

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

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

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

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

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

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

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

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

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

*Precipitation* - Any form of rain or snow.

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

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

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

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

*Structural BMPs* - Permanent structural devices that will reduce or eliminate pollutants discharge into stormwater runoff.



**ATTACHMENT B**

**NOTICE OF INTENT**



# NOTICE OF INTENT (NOI)

**for Arizona Pollutant Discharge Elimination System (AZPDES) Small Municipal Separate Storm Sewer System (MS4) General Permit (AZG2016-002)**

Regulated small Municipal Separate Storm Sewer Systems (MS4s) must submit a Notice of Intent (NOI) to the Arizona Department of Environmental Quality (ADEQ) to obtain MS4 general permit coverage. Permittees must complete a NOI form and submit the original, ink-signed document to the address below:

Arizona Department of Environmental Quality  
 Surface Water Section/ Stormwater & General Permits Unit (5415A-1)  
 1110 West Washington Street  
 Phoenix, AZ 85007

### A. SMALL MS4 INFORMATION

Legal Name of Municipality or Organization:  
 City of Prescott

Choose one: <div style="display: flex; justify-content: space-around;"> <span>Existing Permittee</span> <span>New Permittee</span> </div>		Operator Type: <div style="text-align: center;">City</div>
Mailing Address: 433 N Virginia Street		County: <div style="text-align: center;">Yavapai</div>
City: Prescott	State: Arizona	Zip Code: <div style="text-align: center;">86301</div>

Latitude/ Longitude at approximate geographic center of MS4 (D/M/S):  
 34°32'24"N 112°28'6.6"W

### B. PRIMARY MS4 PROGRAM MANAGER CONTACT PERSON

Name: Matt Killeen		Title: Environmental Coordinator
Department: Public Works Engineering		
Mailing Address: 433 N Virginia Street		
City: Prescott	State: Arizona	Zip Code: <div style="text-align: center;">86301</div>
Phone Number: (928) 777-1140	Fax Number: <a href="#">Click here to enter text.</a>	Email Address: <a href="mailto:matthew.killeen@prescott-az.gov">matthew.killeen@prescott-az.gov</a>

Has another governmental entity agreed to satisfy any of your permit obligations?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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If "yes" to the above question, name the other governmental entity and describe the agreement(s) between entities:

[Click here to enter text.](#)

C. BILLING INFORMATION			
Same as Primary MS4 Program Manager Contact Person Information? If "yes," proceed to Section D.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Name: Click here to enter text.	Title: Click here to enter text.		
Department: Click here to enter text.			
Mailing Address: Click here to enter text.			
City: Click here to enter text.	State: Click here to enter text.	Zip Code: Click here to enter text.	
Phone Number: Click here to enter text.	Fax Number: Click here to enter text.	Email Address: Click here to enter text.	
D. ENFORCEMENT AUTHORITY OR OTHER MECHANISM			
<b>Illicit Discharge Detection and Elimination (IDDE) Enforcement Authority or other mechanism established?</b>		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Describe IDDE Enforcement Authority or other mechanism: Chapter 16-5: 2007 City of Prescott Illegal Discharge and Illegal Connection Stormwater Code			
Name of Enforcement Authority or other mechanism: Code Enforcement Department		Effective Date or Estimated Date of Adoption: 2007	
<b>Construction Site Stormwater Runoff Enforcement Authority or other mechanism established?</b>		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Describe Construction Site Stormwater Enforcement Authority or other mechanism: Chapter 16-4: 2007 City of Prescott Construction Site Erosion and Sediment Control Regulations Code			
Name of Enforcement Authority or other mechanism: Code Enforcement Department		Effective Date or Estimated Date of Adoption: 2007	
<b>Post-Construction Stormwater Management Enforcement Authority or other mechanism established?</b>		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Describe Post-Construction Enforcement Authority or other mechanism: Chapter 16-6: 2007 City of Prescott Post Construction Stormwater Runoff Code			
Name of Enforcement Authority or other mechanism: Code Enforcement Department		Effective Date or Estimated Date of Adoption: 2007	

**E. MAPPING COMPONENTS**

<p>1. Stormwater Sewer Mapping (including roads with drainage system, municipal streets, catch basins, curbs, gutter, ditches, man-made channels, or storm drains that are owned or operated by the permittee and convey stormwater to Waters of the US)</p>	<p>Percent Complete at time of NOI submission <b>70%</b></p>
<p>If 100% of requirements are NOT met for an existing permittee and for all new permittees, include a timeline, measurable goals, and estimated date of completion (MM/YY) for Stormwater Sewer Mapping: <b>10/17</b></p>	
<p>2. Outfall Mapping</p>	<p>Percent Complete at time of NOI submission <b>80%</b></p>
<p>If 100% of requirements are NOT met for an existing permittee and for all new permittees, include a timeline, measurable goals, and estimated date of completion (MM/YY) for Outfall Mapping: <b>10/17</b></p>	
<p>3. Identification of Receiving Waters (names and locations of all the Waters of the US that receive discharge from those outfalls)</p>	<p>Percent Complete at time of NOI submission <b>100%</b></p>
<p>If 100% of requirements are NOT met for an existing permittee and for all new permittees, include a timeline, measurable goals, and estimated date of completion (MM/YY) for Receiving Water Identification: <a href="#">Click here to enter text.</a></p>	

**F. SUMMARY OF RECEIVING WATERS**

<p>Does the MS4 have outfalls that discharge to Waters listed in A.A.C. R18-11 Article 1, Appendix B?</p>	<p><input checked="" type="checkbox"/> Yes</p>	<p><input type="checkbox"/> No</p>
---	--	------------------------------------

If “yes” the MS4 discharges to receiving water(s) listed in A.A.C. R18-11 Article 1, Appendix B, then the following section must be completed. If “no” discharges occur to receiving water(s) listed in A.A.C. R18-11 Article 1, Appendix B, then the following section does not need to be filled out, proceed to Section G. If you answer “yes,” the receiving water segment is Impaired, Not-Attaining or an Outstanding Arizona Water (OAW), you must also complete Part H.3- Impaired, Not-Attaining and OAWs and BMPs.

Identify Appendix B surface water(s) that receives discharge(s) from the MS4	Number of outfalls discharging to receiving water?	Is the receiving water listed as an Impaired, Not-Attaining or OAW (choose one)?	List Pollutant(s) causing the Impairment(s):	Does the receiving water have a TMDL?
Miller Creek	>10	Yes Impaired	E. coli	Yes- TMDL
Butte Creek	>10	Yes Impaired	E. coli	Yes- TMDL
Manzanita Creek	1	Yes Impaired	E. coli	Yes- TMDL
Granite Creek	>10	Yes Impaired	E. coli	Yes- TMDL
Watson Lake Reservoir	>10	Yes Impaired	Nitrogen, low DO, high pH	Yes- TMDL
Willow Creek Reservoir	6	Yes Impaired	Ammonia	No

**G. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY**

**G-1. MCM 1: Public Education and Outreach**

For MCM 1- Public Education and Outreach, use the pull down menu to indicate the BMP Category (column 1). You may override the selection and type in your own BMP. Include a brief description of the BMP (column 2) including the personnel position or department(s) responsible. Describe the Measureable Goals (column 3) for each BMP, including the targeted audience such as commercial, construction, industrial or residential for MCM 1. Column 3 should include milestones, timeframes and frequencies. Insert the month and year (MM/YY) in the Start Date (column 4) to indicate the date the BMP was initiated or enter your own text to override the selection.

BMP Category (enter your own text to override the drop down menu)	BMP Description (include personnel position or department responsible)	Measurable Goals (include milestones, timeframes and frequencies) and include the Targeted Audience	Start Date (MM/YY) (enter your own text to override the drop down menu)
1.1 Explore Partnership Opportunities	Public Works Department- City will research opportunities to partner with other governmental entities and non-governmental organizations to pursue cost-effective implementation mechanisms.	Record number of yearly outreach efforts and results. (1 per year minimum) Audience – general public	9/30/16
1.2 Municipal Website Information	IT Department- The City maintains stormwater information on the City’s website and Facebook page. Website will contain a link to SWMP and NOI.	Document updates to website, record number of visitors to website each year. (Website available year-round) Audience – general public	9/30/16
1.3 Outreach to Homeowners	Public Works Department- Inform citizens of stormwater practices by integrating stormwater education into existing activities such as utility bill inserts.	Record number of outreach efforts. (1 per year minimum) Audience – homeowners	9/30/16
1.4 Outreach to Businesses	Public Works Department- Inform commercial businesses of ways they can reduce pollution and improve the quality of area waters through brochures and posters.	Record number of outreach efforts. (1 per year minimum) Audience – businesses	9/30/16
Choose an item.			Choose an item.

Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.

**MCM 1: Public Education and Outreach**

Use this space to add any additional information for MCM1:

[Click here to enter text.](#)

**G-2. MCM 2: Public Involvement and Participation**

For MCM 2- Public Involvement and Participation, use the pull down menu to indicate the BMP Category (column 1). You may override the selection and type in your own BMP. Include a brief description of the BMP (column 2) including the personnel position or department(s) responsible. Describe the Measureable Goals (column 3) for each BMP. Column 3 should include milestones, timeframes and frequencies. Insert the month and year (MM/YY) in the Start Date (column 4) to indicate the date the BMP was initiated or enter your own text to override the selection.

BMP Category (enter your own text to override the drop down menu)	BMP Description (include personnel position or department responsible)	Measurable Goals (include milestones, timeframes and frequencies)	Start Date (MM/YY) (enter your own text to override the drop down menu)
2.1 Implement Public Notice	Public Works Department- The City notify the public when implementing a change to the SWMP.	Document public notice efforts. (1 per SWMP update.)	4/17
2.2 Stormwater Volunteer Opportunities	Public Works Department- City will identify opportunities for volunteers to participate in stormwater quality activities.	Record number of participants and type of volunteer activity. (1 per year minimum.)	9/30/16
2.3 Procedure for Receiving and Reviewing Public Comment	Public Works Department- Investigate potential violations submitted via telephone or website.	Document number of telephone and website complaints regarding stormwater related issues and resolution. Document number of incidents resolved.	9/30/16
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
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Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.



## **MCM 2: Public Involvement and Participation**

Use this space to add any additional information about MCM2:

[Click here to enter text.](#)

<b>G-3. MCM 3: Illicit Discharge Detection and Elimination (IDDE) Program</b>			
For MCM 3- Illicit Discharge Detection and Elimination (IDDE) Program, use the pull down menu to indicate the BMP Category (column 1). You may override the selection and type in your own BMP. Include a brief description of the BMP (column 2) including the personnel position or department(s) responsible. Describe the Measurable Goals (column 3) for each BMP. Column 3 should include milestones, timeframes and frequencies. Insert the month and year (MM/YY) in the Start Date (column 4) to indicate the date the BMP was initiated or enter your own text to override the selection.			
BMP Category (enter your own text to override the drop down menu)	BMP Description (include personnel position or department responsible)	Measurable Goals (include milestones, timeframes and frequencies)	Start Date (MM/YY) (enter your own text to override the drop down menu)
3.1 Eliminating Illicit Discharges	Public Works Department- Identify and eliminate illicit discharges.	Record number of illicit discharge reports and the outcome of each ID.	9/30/16
3.2 Dry Weather Screening	Public Works Department- City will perform dry weather inspections of outfalls during dry periods in order to identify and follow-up with potential illicit discharges.	City will record number of inspections each year. (20 % of known outfalls per year.)	9/30/16
3.3 Wet Weather Monitoring	Public Works Department- City will inspect outfalls during wet season to identify illicit discharges.	City will keep wet weather monitoring forms and include in annual report. (2 inspections per outfall per each wet season.)	10/17
3.4 Unpermitted Discharges	Public Works Department- Verification of businesses in order to identify unpermitted facilities.	City will record number of licenses verified and report number of unpermitted businesses and construction sites found.	10/17
3.5 Staff Training	Public Works Department- Yearly training of staff in IDDE Program.	City will record number of staff who received training. (Staff will be trained once per year.)	10/17
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.

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

Use this space to add any additional information about MCM3:

[Click here to enter text.](#)

<b>G-4. MCM 4: Construction Activity Stormwater Runoff Control</b>			
For MCM 4- Construction Activity Stormwater Runoff Control, use the pull down menu to indicate the BMP Category (column 1). You may override the selection and type in your own BMP. Include a brief description of the BMP (column 2) including the personnel position or department(s) responsible. Describe the Measureable Goals (column 3) for each BMP. Column 3 should include milestones, timeframes and frequencies. Insert the month and year (MM/YY) in the Start Date (column 4) to indicate the date the BMP was initiated or enter your own text to override the selection.			
BMP Category (enter your own text to override the drop down menu)	BMP Description (include personnel position or department responsible)	Measurable Goals (include milestones, timeframes and frequencies)	Start Date (MM/YY) (enter your own text to override the drop down menu)
4.1 Construction Inventory	Public Works Department- Maintain an inventory of active construction sites.	Active construction sites will be available in a searchable inventory. Number of active sites each year will be recorded in annual report. (All new construction sites added to inventory.)	10/17
4.2 Plan Review, Inspection and Enforcement Procedures	Public Works Department- City will provide initial plan review, inspection of construction projects for stormwater compliance, and enforcement of stormwater regulations.	City will record number of plans reviewed, stormwater inspections conducted, and enforcement actions taken. (All construction projects subject to review and 1 inspection minimum.)	9/30/16
4.3 Operator Education and Public Involvement	Public Works Department- Contractor education program through brochures, onsite training, and outreach presentations.	City will record number of operators who received stormwater training each year.	9/30/16
4.4 Staff Training	Public Works Department- Staff will be trained on thorough inspection of construction sites.	City will record number of employees who received construction stormwater inspection training. (Staff will be trained once per year.)	9/30/16
Choose an item.	Choose an item.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
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Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.

**MCM 4: Construction Activity Stormwater Runoff Control**

Use this space to add any additional information about MCM4:

[Click here to enter text.](#)

<b>G-5. MCM 5: Post-Construction Stormwater Management in New Development and Redevelopment</b>			
<p>For MCM 5- Post-Construction Stormwater Management in New Development and Redevelopment, use the pull down menu to indicate the BMP Category (column 1). You may override the selection and type in your own BMP. Include a brief description of the BMP (column 2) including the personnel position or department(s) responsible. Describe the Measureable Goals (column 3) for each BMP. Column 3 should include milestones, timeframes and frequencies. Insert the month and year (MM/YY) in the Start Date (column 4) to indicate the date the BMP was initiated or enter your own text to override the selection.</p>			
BMP Category (enter your own text to override the drop down menu)	BMP Description (include personnel position or department responsible)	Measurable Goals (include milestones, timeframes and frequencies)	Start Date (MM/YY) (enter your own text to override the drop down menu)
5.1 Stormwater Control Inventory	Public Works, IT and GIS Departments- City will maintain a GIS database of stormwater facility as-built plans.	City will record number of new entries to inventory each year. (Maintain 100% of facilities in inventory.)	9/30/16
5.2 Enforcement Procedures	Public Works Department- City will enforce code pertaining to private infrastructure by following ERP.	City will review enforcement procedures annually. (Number of violations will be recorded each year.)	9/30/16
5.3 Site Plan Review Procedures	Public Works Department- As-built verification of plan design for stormwater facilities.	City will record number of plans reviewed each year. (All BMPs must meet design criteria to be approved.)	9/30/16
5.4 Staff Training	Public Works Department- Staff will be trained on post-construction inspection procedures.	City will record number of employees who received post construction stormwater inspection training. (Staff will be trained once per year.)	10/17
5.5 Inspections	Public Works Department- Staff will conduct inspections of developed sites to ensure stormwater compliance.	City will record the number of inspections conducted.	10/17
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
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Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.

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

Use this space to add any additional information about MCM5:

[Click here to enter text.](#)

<b>G-6. MCM 6: Pollution Prevention and Good Housekeeping</b>			
For MCM 6- Pollution Prevention and Good Housekeeping, Insert the Facility Name applicable to the MS4. Use the pull down menu to indicate the BMP Category (column 1). You may override the selection and type in your own BMP. Include a brief description of the BMP (column 2) including the personnel position or department(s) responsible. Describe the Measurable Goals (column 3) for each BMP. Column 3 should include milestones, timeframes and frequencies. Insert the month and year (MM/YY) in the Start Date (column 4) to indicate the date the BMP was initiated or enter your own text to override the selection. For those BMPs that are not Facility specific, use the rows after the Facility Name inserts.			
BMP Category (enter your own text to override the drop down menu)	BMP Description (include personnel position or department responsible)	Measurable Goals (include milestones, timeframes and frequencies)	Start Date (MM/YY) (enter your own text to override the drop down menu)
Insert Facility Name: <a href="#">Click here to enter text.</a>			
Choose an item.	<a href="#">Click here to enter text.</a>	<a href="#">Click here to enter text.</a>	Choose an item.
Insert Facility Name: <a href="#">Click here to enter text.</a>			
Choose an item.	<a href="#">Click here to enter text.</a>	<a href="#">Click here to enter text.</a>	Choose an item.
Insert Facility Name: <a href="#">Click here to enter text.</a>			
Choose an item.	<a href="#">Click here to enter text.</a>	<a href="#">Click here to enter text.</a>	Choose an item.
Insert Facility Name: <a href="#">Click here to enter text.</a>			
Choose an item.	<a href="#">Click here to enter text.</a>	<a href="#">Click here to enter text.</a>	Choose an item.
Insert Facility Name: <a href="#">Click here to enter text.</a>			
Choose an item.	<a href="#">Click here to enter text.</a>	<a href="#">Click here to enter text.</a>	Choose an item.
Insert Facility Name: <a href="#">Click here to enter text.</a>			
Choose an item.	<a href="#">Click here to enter text.</a>	<a href="#">Click here to enter text.</a>	Choose an item.
Insert Facility Name: <a href="#">Click here to enter text.</a>			
Choose an item.	<a href="#">Click here to enter text.</a>	<a href="#">Click here to enter text.</a>	Choose an item.
Insert Pollution Prevention and Good Housekeeping BMPs that are not facility specific below			
6.1 Municipal Facility Inventory and Prioritization	Field & Facilities Services- Inspection schedule for municipal facilities based on potential discharge priority.	City will keep facility inspection reports on file. (Each facility will be inspected per prioritization schedule.	10/17
6.2 Operations, Inspection and Maintenance	Field & Facilities Services- City vehicle maintenance, street sweeping, and retention basin programs.	City will report all maintenance activities each year. (Streets will be swept once per month minimum, and city vehicles will be inspected once per year minimum.)	9/30/16
6.3 Implement Controls	Public Works Department- City facilities will have pollution prevention plans.	Review in-place P2 controls each year and document review. Record number of public basins that are maintained each year.	9/30/16

6.4 Staff Training	Public Works Department- City will teach proper stormwater pollution prevention techniques to maintenance crews and facility inspectors.	City will record number of employees who received training. (Staff shall be trained once per year minimum.)	9/30/16
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.
Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.

### **MCM 6 Pollution Prevention and Good Housekeeping**

Use this space to add any additional information about MCM6:

[Click here to enter text.](#)

**H. MONITORING**

**1. DRY WEATHER VISUAL OUTFALL MONITORING**

Has a dry weather visual discharge monitoring program been developed?  Yes  No

If the above answer is "yes," provide the actual date of implementation: **9/30/2016**  
 If the above answer is "no," provide estimated date of completion: [Click here to enter a date.](#)

Estimated total number of municipal stormwater outfalls	Percent of total number of municipal stormwater outfalls to be monitored each year
287	20%

**2.A VISUAL STORMWATER DISCHARGE MONITORING**

Below identify a minimum of five outfalls or field screening points for the visual stormwater discharge monitoring program

Outfall or field screening point identification number	Name of receiving water	Is the receiving water listed as an Impaired, Not-Attaining or OAW (choose one)?
2 On Rotating Basis	Miller Creek	Impaired and Not-Attaining
2 On Rotating Basis	Butte Creek	Impaired and Not-Attaining
2 On Rotating Basis	Manzanita Creek	Impaired and Not-Attaining
2 On Rotating Basis	Granite Creek	Impaired and Not-Attaining
2 On Rotating Basis	Watson Lake Reservoir	Impaired and Not-Attaining
2 On Rotating Basis	Willow Creek Reservoir	Impaired

**2.B VISUAL STORMWATER DISCHARGE MONITORING ALTERNATIVE**

Are you proposing a visual stormwater discharge monitoring alternative?  Yes  No

If "yes" a visual stormwater discharge monitoring alternative is being proposed, provide a description of the proposed alternative and how the proposed alternative is as effective as, or is more effective than, visual stormwater discharge monitoring in the space below.

Due to the number and location of current and anticipated impaired waters as well as limited staff availability, the City proposes to monitor two outfalls per impaired water on a rotating basis.

**3. IMPAIRED, NOT-ATTAINING AND OAW MONITORING AND BMPS**

Part H.3 is to be completed only if the MS4 has outfalls that discharge to an Impaired, Not-Attaining or Outstanding Arizona Water (OAW), or a combination there of.

Has a Sampling and Analysis Plan (SAP) been developed in accordance with permit Part 5.1.g?  Yes  No

If the above answer is "no," provide an estimated date of completion for the SAP: [Click here to enter a date.](#)

List each individual receiving water that is Impaired, Not-Attaining or an OAW that the MS4 discharges to	How many outfalls will be sampled?	List outfall ID or unique identification	List parameter(s) to be analyzed	Provide a description of how the selected BMPs will specifically address the pollutant(s) causing the impairments or how the BMPS will be protective of the OAW
---	------------------------------------	--	----------------------------------	---

Miller Creek	2	On Rotating Basis	E. Coli	The City of Prescott is currently conducting research and coordinating with ADEQ to select appropriate BMPs to reduce pollutant loading and improve water quality.
Butte Creek	2	On Rotating Basis	E. Coli	
Manzanita Creek	2	On Rotating Basis	E. Coli	
Granite Creek	2	On Rotating Basis	E. Coli	
Watson Lake Reservoir	2	On Rotating Basis	Nitrogen, low DO, high pH	
Willow Lake Reservoir	2	On Rotating Basis	Ammonia	

**I. NOTES AND ADDITIONAL INFORMATION**

Use the space below to provide any additional information about the MS4 program.

The City of Prescott is conducting ongoing Upper Granite Creek watershed and Watson Lake Reservoir modeling and BMP evaluation efforts to reduce pollutant loading and improve water quality.

**J. FEES**

Fill out either Part A for a New Permittee or Part B for an Existing Permittee. If a New Permittee, choose one check box below to indicate the MS4s population and applicable initial permit fee. Insert the total payment included with the NOI in the text box. If an Existing Permittee, choose one check box below to indicate the MS4s population. Note: The estimated MS4 population should be based on latest Decennial Census by the Bureau of Census.

Part A

New Permittee.

confirm the correct fee payment is included with the NOI.

- <or = to 10,000: \$2,500
- >10,000 but ≤ 100,000: \$5,000
- > 100,000: \$7,500
- Non-traditional MS4 such as hospital, college or military: \$5,000

Total fee payment included: [Click here to enter text.](#)

Part B

Existing Permittee.

No fee is required for NOI submission. You will continue to be invoiced on your current annual fee billing cycle.

- <or = to 10,000
- >10,000 but ≤ 100,000
- > 100,000
- Non-traditional MS4 such as hospital, college or military

**K. CERTIFICATION**

Pursuant to A.R.S. § 41-1030:

- (1) ADEQ shall not base a licensing decision, in whole or in part, on a requirement or condition not specifically authorized by statute or rule. General authority in a statute does not authorize a requirement or condition unless a rule is made pursuant to it that specifically authorizes the requirement or condition.
- (2) Prohibited licensing decisions may be challenged in a private civil action. Relief may be awarded to the prevailing party against ADEQ, including reasonable attorney fees, damages, and all fees associated with the license application.
- (3) ADEQ employees may not intentionally or knowingly violate the requirement for specific licensing authority. Violation is cause for disciplinary action or dismissal, pursuant to ADEQ's adopted personnel policy. ADEQ employees are still afforded the immunity in A.R.S. §§ 12-821.01 and 12-820.02.

I certify under penalty of law that I have met the eligibility conditions of this permit and 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 gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.



Printed Name: Michael Lamar	Title: City Manager
Ink Signature	Date:



**ATTACHMENT C**  
**ENFORCEMENT RESPONSE PLAN**

# Enforcement Response Plan (ERP)

## INTRODUCTION

As required by the by the Arizona Department of Environmental Quality's (ADEQ) Arizona Pollutant Discharge Elimination System (AZPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4) to Waters of the United States No. AZG2016-002 (Permit), the City of Prescott is required to develop and implement an Enforcement Response Plan (ERP). This ERP describes the City's procedures and policies regarding enforcement of the City's municipal ordinances relating to stormwater quality, including illicit discharges. Compliance shall be achieved through progressively stricter responses as needed. The ERP includes the following items relative to the City's enforcement procedures:

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

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

- City Code 16-6: 2007 City of Prescott Post Construction Stormwater Runoff Code
- City Code 16-5: 2007 City of Prescott Illegal Discharge and Illegal Connection Stormwater Code

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

## 1.0 ENFORCEMENT PROCESS

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

### 1.1 NEW DEVELOPMENT

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

### 1.2 ILLICIT DISCHARGES

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

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

## **2.0 RESPONSE CRITERIA TO CONSIDER**

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

- *Effect on the Environment* - Violations that have the potential to negatively impact the City's stormwater system, private property, or washes are urgent and require expeditious action. Such violations warrant bypassing verbal warnings and moving to more aggressive actions to gain quick compliance.
- *Compliance History of the Violator* - The violator's compliance history can affect the enforcement response. Recurring violations may indicate that an operator's treatment system is inadequate, that the operator has taken a casual approach to operating and maintaining the treatment system or that an operator does not intend to comply with the ordinance. Repeated violations by the same person or company reflects egregiousness and/or willfulness.
- *Duration* - Where a violator has been issued a verbal or written warning, the compliance clock begins. Failure to complete corrective actions within the established time may indicate that escalated enforcement actions are needed to gain compliance.
- *Good Faith of the Violator* - 'Good Faith' is defined as the violator's honest intention to remedy non-compliance evidenced by actions which give support to this intention. Good faith shall be demonstrated by cooperation and completion of corrective measures in a timely manner. A violator's good faith in correcting noncompliance is a factor in determining which enforcement response is suitable.

## **3.0 CATEGORIES OF VIOLATIONS**

There are two general categories of violations:

- *Permitted violations* - These types of violations are typically construction projects holding a Building Permit that are in violation of permit conditions.
- *Unpermitted violations* - These violations include illicit discharges, illegal dumping, or land disturbances that begin without first obtaining an appropriate Permit.

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

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

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

### **3.1 VERBAL WARNINGS**

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

### **3.2 WRITTEN WARNING**

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

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

### **3.3 NOTICE OF VIOLATION**

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

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

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

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

The NOV includes:

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

### **3.4 CIVIL CITATIONS**

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

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

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

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

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

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

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

### **3.5 CRIMINAL PENALTIES**

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

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

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

#### **4.0 ADDITIONAL RESPONSE ALTERNATIVES FOR PERMITTED VIOLATIONS**

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

##### **4.1 STOP WORK ORDER**

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

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

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

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

A Stop Work Order typically includes:

- The description and nature of the violations to the City's Ordinance or construction plans.
- The location of where the violations have occurred.
- A description of the ordered repair or remediation work necessary to comply with the City's Ordinance
- Requirement to submit a Corrective Action Plan within 10 days of the Stop Work Order. The Corrective Action Plan must address actions that will be taken to bring the site into compliance.
- Signature and Title of the person issuing the Stop Work Order.

#### **4.2 WITHHOLD BUILDING INSPECTIONS**

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

- The Code Enforcement Officer, Chief Building Official, or their designee notifies the Building Safety Department to withhold building inspections. Building Safety Department places a hold on building inspections and will not issue a Certificate of Occupancy.
- A City Code Enforcement Officer, Chief Building Official, or their designee shall re-inspect to ensure compliance before the City releases the hold on building inspections.

#### **4.3 WITHHOLD PLAN APPROVALS**

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

#### **4.4 WITHHOLD RELEASE OF CERTIFICATE OF OCCUPANCY**

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

- The Chief Building Official notifies the Community Development Department to withhold the Certificate of Occupancy.
- The Chief Building Official notifies the Director of Community Development of the hold on Certificate of Occupancy.
- The Chief Building Official shall re-inspect to ensure compliance before the City releases the hold on the Certificate of Occupancy.

## **5.0 ADDITIONAL ACTION BY PRESCOTT**

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

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

## **6.0 CORRECTIVE ACTION PLANS**

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

- A proposed description of and design for immediate actions. Examples include installation of additional sediment controls.
- A proposed description of final actions to bring the site fully into compliance. An example could be the submittal of a detailed engineering plan.
- A proposed schedule for actions to bring the site into compliance.

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



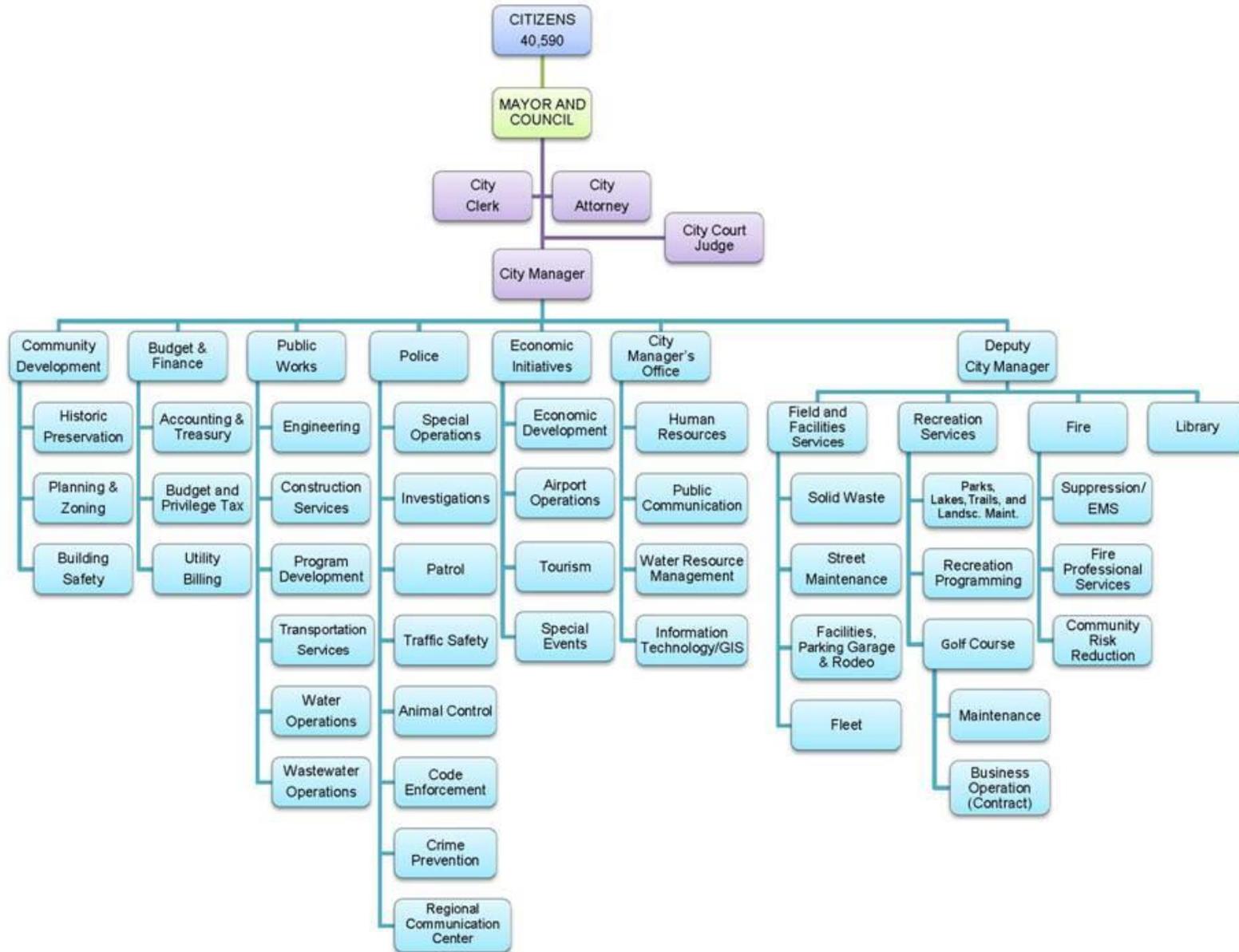
**ATTACHMENT D**  
**MUNICIPAL FACILITY LIST**

<b>Municipal Facility</b>	<b>Address</b>	<b>Priority</b>	<b>Inspection Schedule</b>
Public Works	433 N Virginia St, Prescott	High	Quarterly
Fleet Maint Garage	432 N Virginia	High	Quarterly
Maintenance Facility	1200 Commerce Drive	High	Quarterly
Prescott Airport	6500 MaCurdy Drive	High	N/A (MSGP Coverage)
Wastewater Treatment Plant	1500 SunDog Ranch Road	High	N/A (MSGP Coverage)
Airport Wastewater Reclamation	2800 Melville Road	High	N/A (MSGP Coverage)
Streets/Solid Waste Crew/Break	2790 Sundog Ranch Rd	High	N/A (MSGP Coverage)
Police Station	222 S. Marina	Medium	Annually
Fire Station #1	333 White Spar Road	Medium	Annually
Fire Station #2	1700 Iron Springs Road	Medium	Annually
Fire Station #3	1980 Clubhouse Drive	Medium	Annually
Fire Station #4	2747 Smoke Tree Lane	Medium	Annually
Fire Station #5	315 N. Lee Blvd.	Medium	Annually
Prescott Golf Course	1 Perkins Drive	Medium	Annually
City Hall	201 S. Cortez	Low	20% Per Year
Office Buildings	216 S. Marina St.	Low	20% Per Year
Library	215 E. Goodwin Street	Low	20% Per Year
Lloyd Roe Adult Center	335 E. Aubrey	Low	20% Per Year
Facility Shop and Offices	434 N Mt. Vernon	Low	20% Per Year
Warehouse	440 N Mt. Vernon	Low	20% Per Year
Inspectors Offices & Motorcops	430 N Virginia	Low	20% Per Year
AZ Dept of Econ Sec Bldg	234 Grove Ave.	Low	20% Per Year
Prescott Activity Center	824 E. Gurley	Low	20% Per Year
Boyle Debusk House	44 Limberlost Lane	Low	20% Per Year
Community Nature Center	1980 Williamson Valley Rd	Low	20% Per Year
Adult Center Building	1280 E Rosser St	Low	20% Per Year
Sixth Street Wildlands Building	521 6th St	Low	20% Per Year
Granite St Parking Garage	135 S Granite St	Low	20% Per Year
Bldg "A" Warehouse/Shop	840 Rodeo Drive	Low	20% Per Year
Communications Center Bldg	216 S Cortez	Low	20% Per Year
Fire Department Adm	215 N McCormick St	Low	20% Per Year
Fire Department Adm	223 N McCormick St	Low	20% Per Year
Ken Lindley Park	700 E. Gurley	Low	20% Per Year
Restrooms	621 N Washington Street	Low	20% Per Year
Granite Creek Park	500 N. 6th Street	Low	20% Per Year
Restroom	3818 Willow Creek Road	Low	20% Per Year
Storage Garage	1497 Heritage Park Road	Low	20% Per Year
Restroom	1000 Goldwater Lake Road	Low	20% Per Year
Storage	Lower Goldwater Lake	Low	20% Per Year
Watson Lake Park	3101 N Hwy 89	Low	20% Per Year
Animal Shelter	1605 Sundog Ranch Road	Low	20% Per Year
Flynn Park	280 Josephine	Low	20% Per Year



**ATTACHMENT E**

**ORGANIZATION CHART AND RESPONSIBILITIES**



<b>Department</b>	<b>Title</b>	<b>Responsibility</b>
Administration	City Manager	Signs MS4 NOI
Community Development	City Planners	Review Planning and Zoning Permits
	Building Safety Personnel	Review Building Permits Performs ESC inspections for single family residences (<1Ac. & not a common plan of development)
Police	Code Enforcement Officer	Investigates and enforces city code violations.
Public Works	Environmental Coordinator	Implements Stormwater Management Plan
	Public Works Director	Oversees and supports SWMP implementation
	Construction Inspector	Performs construction site inspections for all commercial development and residential development that is >1Ac. or a common plan of development.
	Street Maintenance Personnel	Cleans drainage inlets and stormwater systems
	City Engineer	Supports and directs SWMP implementation.
	GIS Personnel	Maintain current mapping system of City stormwater system
Recreation Services	Recreation Department	ROW, Median cleaning, Green Infrastructure maintenance.



## **ATTACHMENT F**

### **FORMS**



**City of Prescott  
Stormwater Construction Site Inspection Report**

Contractor:		Project Number:	
Project Name			
Location			
Date of Inspection		Start Time:	End Time:
Describe present phase of construction			
Weather Information			
Weather at time of inspection?			
Do you suspect that discharges may have occurred? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Are there any discharges at the time of inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No			
If yes, provide location(s) and a description of stormwater discharged from the site (presence of suspended sediment, turbid water, discoloration, and/or oil sheen)			
Non-Stormwater Discharges			
<i>Identify all non-stormwater discharges (i.e. water, other than stormwater, directed to a watercourse, storm drain, or off of the construction site):</i>			

**INSPECTION CHECKLIST**

BMP/Activity	Implemented	Compliance Issue #
Are perimeter controls and sediment barriers adequately installed and maintained?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Are discharge points and receiving waters free of sediment deposits?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Are storm drain inlets properly protected?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Is there evidence of sediment being tracked into the street?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Is trash/litter from work areas collected and placed in dumpsters?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Are vehicle and equipment fueling, cleaning, material storage, and maintenance areas free of spills, leaks, or any other harmful material?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Are materials that are potential stormwater contaminants stored inside or under cover, where practicable?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Are there locations where additional BMPs are necessary?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Are changes to the SWPPP necessary?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Other issues noted?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

If there were no incidents of noncompliance noted during the inspection the inspector certifies that the construction project or site is being operated in compliance with the City's SWMP and Permit No. AZG2016-002.

**NOTED COMPLIANCE ISSUES**

#	Issue	Corrective Action

**Certification statement:**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Inspector Name: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_

**Inspector Information**

<b>Name:</b>		<b>Date:</b>	
<b>Title:</b>		<b>Time In:</b>	
<b>Phone:</b>		<b>Time Out:</b>	

**Facility Information**

<b>Development/Facility Name</b>	
<b>Owner Name</b>	
<b>Owner Phone #</b>	
<b>Address or Location</b>	
<b>Parcel or Section #</b>	

**Post-Construction BMPs**

BMP Type	BMP Installed and Operating Properly?		Corrective Action Needed:	Date for Corrective Action	Date Corrective Action was Completed:
	Yes	No			
	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>			



**IDDE INSPECTION/INVESTIGATION FORM  
CITY OF PRESCOTT**



**Section 1: Background Data**

Outfall ID:	Date:	Time:
Inspector/Investigator:		
<input type="checkbox"/> Dry Weather Inspection <input type="checkbox"/> IDDE Investigation <input type="checkbox"/> 3-Day Follow-up Inspection <input type="checkbox"/> Visual Assessment (If so, check sampling description boxes below) <input type="checkbox"/> Sampling Event #1 <input type="checkbox"/> Sampling Event #2 <input type="checkbox"/> Summer Wet Season (6/1 - 10/1) <input type="checkbox"/> Winter Wet Season (11/1 – 5/31)		
Photos? <input type="checkbox"/> Yes <input type="checkbox"/> No      If yes, append photos to this report.		
Precipitation w/in last 72 hours? <input type="checkbox"/> Yes <input type="checkbox"/> No Approximate Rainfall (in) _____		Weather (approx. temp, etc.):
Land Use in Drainage Area (check all that apply):	<input type="checkbox"/> Open Space Other: _____ Known Industries: _____	
<input type="checkbox"/> Industrial <input type="checkbox"/> Residential <input type="checkbox"/> Commercial		

**Section 2: Physical Indicators**

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





**ATTACHMENT G**  
**TRAINING RECORDS**



**ATTACHMENT H**  
**SELF EVALUATION RECORDS**



**ATTACHMENT I**

**ORDINANCES**

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## CHAPTER 16-4: 2007 CITY OF PRESCOTT CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL REGULATIONS CODE

[16-4-1:](#) ADOPTION OF THE CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL REGULATIONS CODE:

[16-4-2:](#) PENALTY – CRIMINAL:

[16-4-3:](#) PENALTY – CIVIL:

### 16-4-1 ADOPTION OF THE CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL REGULATIONS CODE:

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That certain document entitled the 2007 City of Prescott Construction Site Erosion and Sediment Control Regulations Code, together with all referenced standards therein and together with appendices, which document was made a public record by Resolution No. 3871-0839 is hereby adopted by this reference. (This document is shown below as a courtesy to users.)

#### Section 1 – Introduction and Purpose

**1.1** During the construction process, soil is highly vulnerable to erosion by wind and water. Eroded soil, which can become contaminated, by oils, solvents and debris from the construction activity, may endanger water resources by reducing water quality and causing the siltation of aquatic habitat for fish and other desirable species. Eroded soil also necessitates repair of sewers and ditches and the dredging of lakes. In addition, clearing and grading during construction can cause the loss of native vegetation necessary for terrestrial and aquatic habitat, as well as soil stabilization.

**1.2** As a result, the purpose of this local code is intended to safeguard persons, protect property, and prevent damage to the environment in the City of Prescott. This code will also promote the public welfare by guiding, regulating, and controlling the design, construction, use, and maintenance of any development or other activity that disturbs or breaks the topsoil or results in the movement of earth on land in the City of Prescott.

**1.3** This code is for compliance with Arizona Department of Environmental Quality (ADEQ) Arizona Pollutant Discharge Elimination System (AZPDES) General Permit for Discharge from small Municipal Separate Storm Sewer Systems (MS4). The code does not supersede or waive the requirements of any "Operator's" applicable requirements under the AZPDES Construction General Permit AZG2003-001, or future AZPDES Construction General Permits, or Storm Water Pollution Prevention Plan (SWPPP).

#### Section 2 – Definitions

**Authorized Enforcement Agency** – Employees or designees of the director of Public Works designated to enforce this regulation.

**Arizona Department of Environmental Quality (ADEQ)** – The state agency charged with enforcement of environmental laws and regulations.

**Arizona Department of Transportation (ADOT)** – The state agency responsible for state highways and related transportation.

**Clearing** – Any activity that removes the vegetative surface cover.

**Drainage Way** – Any man-made or natural channel or device that conveys surface runoff throughout the site.

**Erosion Control** – A measure that prevents erosion.

**Grading** – Excavation or fill of material, including the resulting conditions thereof.

**Notice Of Intent (NOI)** – A written commitment by the operator that they will comply with the rules and regulations of the General Permit and their Storm Water Pollution Protection Plan (SWPPP).

**Notice of Termination (NOT)** – A written confirmation that construction activities have ceased and that the site is permanently stabilized.

**Perimeter Control** – A barrier that prevents sediment from leaving a site by filtering sediment-laden runoff or diverting it to a sediment trap or basin.

**Phasing** – Clearing a parcel of land in distinct phases, with the stabilization of each phase completed before the clearing of the next.

**Sediment Control** – Measures that prevent eroded sediment from leaving the site.

**Site** – A parcel of land or a contiguous combination thereof, where grading work is performed as a single unified operation.

**Stabilization** – The use of practices that prevent exposed soil from eroding.

**Start of Construction** – The first land-disturbing activity associated with a development, including but not limited to, land preparation such as clearing, grading, and filling; installation of utilities, streets and walkways; excavation for footings, piers, or foundations; erection of temporary forms; and installation of accessory buildings.

**Storm Water Pollution Protection Plan (SWPPP)** – The Plan submitted with the NOI prior to construction, indicating the specific measures and sequencing to be used to control sediment and erosion on a development site during and after construction.

**Watercourse** – Any body of water, including, but not limited to lakes, ponds, seasonal and perennial creeks, and wetlands.

**Waterway** – A channel or device that directs surface runoff to a watercourse or to the public storm drain.

### **Section 3 – Permits**

**3.1** No person shall be granted a Site Disturbance and Grading Permit, as required under the City of Prescott Land Development Code, for land-disturbing activities that would result in a land disturbance of greater than or equal to one acre without first having submitted and obtained approval, by the Public Works Department, of an Erosion and Sedimentation Plan and/or a Storm Water Pollution Prevention Plan (SWPPP).

**3.2** For construction activity that is part of a larger common plan of development, subdivision or lot split that would result in the accumulated disturbance of one acre or more, an Erosion and Sedimentation Plan and/or a SWPPP will be required.

**3.3** For all construction activity not affected by Section 3.2 and disturbs less than one acre, only an Erosion and Sedimentation Plan will be required.

**3.4** The applicant is responsible for demonstrating compliance with all ADEQ related development permit requirements, including proof of filing an NOI, SWPPP, and NOT, when applicable. Particular attention should be applied to any development that is within 1/4 mile of an impaired or unique classified waterway.

**3.5** If the Arizona Department of Environmental Quality waives requirements for stormwater discharges associated with small construction activity, as defined under [40 CFR 122.26\(b\)\(15\)\(i\)](#), an Erosion and Sediment Control Plan is not required and this code will not apply.

**3.6** No Site Disturbance and Grading Permit is required for the following activities:

1. Any emergency activity that is immediately necessary for the protection of life, property, or natural resources.
2. Existing nursery and agricultural operations conducted as a permitted main or accessory use.
3. Existing sand, gravel, dimensional stone, or crushed stone quarries with secured National Pollutant Discharge Elimination Systems (NPDES) permit.
4. Subdivision or site plans approved by permit prior to the effective date of these codes.

**3.7** Each application shall bear the name and address of the owner or developer of the site, and of any consulting firm and/or contractor retained by the applicant together with the name of the applicant's principal contact at such firm.

**3.8** Each application shall include a statement that any land clearing, construction, or development involving the movement of earth shall be in accordance with the Erosion and Sedimentation Plan.

#### **Section 4 – Review and Approval**

**4.1** Prescott's Public Works Department will review each application as part of the Site Disturbance and Grading Permit and/or Building Permit to determine its conformance with the provisions of this regulation. Prescott's Public Works Department shall, in writing:

1. Approve the permit application;
2. Approve the permit application subject to such reasonable conditions as may be necessary to secure substantially the objectives of this regulation, and issue the permit subject to these conditions; or
3. Disapprove the permit application, indicating the reason(s) and procedure for submitting a revised application and/or submission.

#### **Section 5 – Erosion and Sediment Control Plan**

**5.1** The Erosion and Sediment Control Plan shall at a minimum include the following:

1. A USGS quality topographic map with contours and drainage flows depicted in conjunction with receiving waters within one mile. This map should be at a scale no smaller than 1"=100'.
2. A sequence of construction of the development site, including stripping and clearing; rough grading; construction of utilities, infrastructure, and buildings; and final grading and landscaping.
3. All erosion and sediment control measures necessary to meet the objectives of this regulation throughout all phases of construction and after completion of development of the site.

**5.2** Modifications to the plan shall be approved or disapproved at the direction of the Public Works Department.

### **Section 6 – Design Requirements**

**6.1** Grading, erosion control practices, sediment control practices, and waterway crossings shall meet the design criteria set forth in the most recent version of the Arizona Department of Transportation (ADOT) Erosion and Pollution Control Manual, and shall be adequate to prevent transportation of sediment from the site to the satisfaction of Prescott's Public Works Department.

**6.2** Clearing and grading of natural resources, such as forests and wetlands, shall not be permitted, except when in compliance with all other chapters of this Code. Clearing techniques that retain natural vegetation and drainage patterns, as described in the ADOT Erosion and Pollution Control Manual shall be used to the satisfaction of Prescott's Public Works Department.

**6.3** Clearing shall not begin, except for that required to install perimeter controls, until all perimeter sediment control devices have been installed and have been stabilized according to the Erosion and Sediment Control Plan.

**6.4** Phasing shall be required on all sites disturbing greater than thirty (30) acres, with the size of each phase to be established at plan review and as approved by Prescott's Public Works Department.

**6.5** Erosion and Sediment controls requirements shall abide by following:

1. Soil stabilization and sediment control shall be performed and completed as per an approved SWPPP and/or Erosion and Sedimentation Control Plan in accordance with the Land Development Code.
2. Special techniques that meet the design criteria outlined in the ADOT Erosion and Pollution Control Manual, Maricopa County Flood Control District Guidelines, or other measures approved by the Public Works Department, shall be used to ensure stabilization.

**6.7** Waterway and watercourse protection requirements shall be in conformance with US Army Corps of Engineers regulations, where applicable.

### **Section 7 – Inspection**

**7.1** Prescott's Public Works Department or designated agent shall make inspections as to assure compliance with the approved Erosion and Sediment Control Plan and/or SWPPP. The approved plans and/or SWPPP shall be maintained at the site during the progress of the work.

**7.2** The permittee or his/her agent shall make regular inspections of all control measures in accordance with the inspection schedule, when required, and after any measurable rainfall.

**7.3** Prescott's Public Works Department or its designated agent shall have access to the property as deemed necessary to make inspections to assure continued compliance.

### **Section 8 – Enforcement**

**8.1** In the event that any person holding a Site Disturbance and Grading Permit pursuant to this regulation violates the terms of the permit in any manner or the permittee implements site development in such a manner as to materially adversely affect the health, welfare, or safety of persons residing or working in the neighborhood or development site so as to be materially detrimental to the public welfare or injurious to property or improvements in the neighborhood, Prescott's Public Works Department may suspend or revoke the site development permit.

**8.2** Any violators of the code shall be subject to the penalties set forth in Ordinance No. 4635-0837 which Ordinance adopts this code.

(Ord. 4983-1521, 6-7-2016)

### **16-4-2 PENALTY – CRIMINAL:**

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Any person who violates any provisions of this chapter or any provision of the codes adopted by reference pursuant to this chapter shall be guilty of a misdemeanor, and upon conviction thereof shall be punished as provided in Section [1-3-1](#), by a fine not exceeding two thousand five hundred dollars (\$2,500.00) or by imprisonment for not more than six (6) months, or by both such fine and imprisonment, in the discretion of the City Judge. Each and every day any such violation continues shall be deemed and considered a separate offense. (Ord. 4983-1521, 6-7-2016)

### **16-4-3 PENALTY – CIVIL:**

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Any person who violates any provisions of this chapter shall be guilty of a civil violation and shall be subject to the provisions of Section [1-3-2](#) for each day that the violation continues. (Ord. 4635-0837, 12-11-07; eff. 01-10-08; Ord. 4983-1521, 6-7-2016)

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**The Prescott City Code is current through Ordinance 5021, passed January 24, 2017.**

Disclaimer: The City Clerk's Office has the official version of the Prescott City Code. Users should contact the City Clerk's Office for ordinances passed subsequent to the ordinance cited above.

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## CHAPTER 16-5: 2007 CITY OF PRESCOTT ILLEGAL DISCHARGE AND ILLEGAL CONNECTION STORMWATER CODE

[16-5-1](#): ADOPTION OF THE 2007 CITY OF PRESCOTT ILLEGAL DISCHARGE AND ILLEGAL CONNECTION STORMWATER CODE:

[16-5-2](#): PENALTY – CRIMINAL:

[16-5-3](#): PENALTY – CIVIL:

### 16-5-1 ADOPTION OF THE 2007 CITY OF PRESCOTT ILLEGAL DISCHARGE AND ILLEGAL CONNECTION STORMWATER CODE

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That certain document entitled the 2007 City of Prescott Illegal Discharge and Illegal Connection Stormwater Code, together with all referenced standards therein and together with appendices, which document was made a public record by Resolution No. 3872-0840 is hereby adopted by this reference. (This document is shown below as a courtesy to users.)

#### Section 1 – Purpose and Intent

**1.1** The purpose of this code is to provide for the health, safety, and general welfare of the citizens of the City of Prescott through the regulation of non-storm water discharges to the storm drainage system to the maximum extent practicable as required by federal and state law.

**1.2** This Code establishes methods for controlling the introduction of pollutants into the municipal separate storm sewer system (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process. The objectives of this Code are:

1. To regulate the contribution of pollutants to the municipal separate storm sewer system (MS4) by stormwater discharges by any user.
2. To prohibit Illegal Connections and Discharges to the municipal separate storm sewer system.
3. To affirm the City's legal authority and processes to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with this Code.

#### Section 2 – Definitions

**Authorized Enforcement Agency** – Public Works Director or his/her employees or designees of the City of Prescott designated to enforce this Code.

**Best Management Practices (BMPs)** – Schedules of activities, prohibitions of practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters, or stormwater conveyance systems. BMPs also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.

**Clean Water Act** – The federal Water Pollution Control Act ([33 U.S.C. § 1251](#) et seq.), and any subsequent amendments thereto.

**Construction Activity** – Activities subject to NPDES Construction Permits. NPDES Storm Water Phase II permits will be required for construction projects resulting in land disturbance of 1 acre or more. Such activities include but are not limited to clearing and grubbing, grading, excavating, and demolition. Refer to the ADOT Erosion and Pollution Control Manual for additional information.

**Hazardous Materials** – Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

**Illegal Discharge** – Any direct or indirect non-storm water discharge to the storm drain system, except as exempted in Section X of this Code.

**Illegal Connections** – Any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system including but not limited to any conveyances which may allow any non-storm water discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency or, any drain or conveyance connected from a commercial or industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and which has not been permitted and/or approved by an authorized enforcement agency.

**Industrial Activity** – Activities subject to NPDES Industrial Permits as defined in [40](#) CFR, Section 122.26 (b) (14).

**National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permit** – A permit issued by EPA (or by a State under authority delegated pursuant to [33](#) USC § [1342](#)(b)) that authorizes the discharge of pollutants to waters of the United States, (as locally defined within the jurisdiction of the City of Prescott) whether the permit is applicable on an individual, group, or general area-wide basis.

**Non-Storm Water Discharge** – Any discharge to the storm drain system that is not composed entirely of storm water.

**Person** – Any individual, association, organization, partnership, firm, corporation or other entity recognized by law and acting as either the owner or as the owner's agent.

**Pollutant** – Anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, articles, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind, and other substances defined as pollutants by State or federal law or regulation.

**Premises** – Any building, lot, parcel of land, or portion of land whether improved or unimproved including adjacent sidewalks and parking strips.

**Storm Drainage System** – Publicly-owned facilities by which storm water is collected and/or conveyed, including but not limited to any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures.

**Stormwater** – Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation.

**Stormwater Pollution Prevention Plan** – A document submitted to and approved by the City by a permittee which describes the Best Management Practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to Stormwater, Stormwater Conveyance Systems, and/or Receiving Waters to the Maximum Extent Practicable.

**Unreasonable Delay** – Delay in excess of 36 hours from receipt of notification of request by the City to inspect stormwater facilities.

**Wastewater** – Any water or other liquid, other than uncontaminated storm water, discharged from a facility.

### **Section 3 – Applicability**

This Code shall apply to all water entering the City of Prescott's storm drain system which is generated on any developed and undeveloped lands unless such discharge is explicitly exempted by an authorized enforcement agency.

### **Section 4 – Responsibility for Administration**

The Public Works Department shall administer, implement, and enforce the provisions of this Code. Any powers granted or duties imposed upon the Public Works Department may be delegated in writing by the Director of the Public Works Department to persons or entities acting in the beneficial interest of or in the employ of the agency, or to whom such powers or duties have been delegated pursuant to contract.

### **Section 5 – Severability**

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

### **Section 6 – Ultimate Responsibility**

The standards set forth herein and promulgated pursuant to this Code are minimum standards; therefore this Code does not intend nor imply that compliance by any person will ensure that there will be no contamination, pollution, nor unauthorized discharge of pollutants. It is the ultimate responsibility of all permitted persons and entities to ensure that best management practices for NPDES compliance per the Clean Water Act are followed to the maximum extent practicable.

### **Section 7 – Discharge Prohibitions**

**7.1** No person shall discharge or cause to be discharged into the municipal storm drain system or watercourses any materials, including but not limited to pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than storm water.

**7.2** The commencement, conduct or continuance of any illegal discharge to the storm drain system is prohibited except as described as follows:

1. Water line flushing or other potable water sources, including landscape irrigation or lawn watering on single family home lots (or those lots determined by the Public Works Director to be of equal or similar size and scope as an SFD)
2. Diverted stream flows
3. Foundation or footing drains (not including active groundwater dewatering systems)
4. Air conditioning condensation
5. Springs
6. Non-commercial washing of vehicles
7. Natural riparian habitat or wet-land flows
8. Swimming pools (if dechlorinated – typically less than one PPM chlorine)
9. Fire fighting activities, and
10. Discharges specified in writing by the City of Prescott Public Works Director.

**7.3** The prohibition shall not apply to any non-storm water discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the Federal Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the storm drain system.

**7.4** Prohibition of Illegal Connections.

1. The construction, use, maintenance or continued existence of illegal connections to the storm drain system is prohibited.
2. This prohibition expressly includes, without limitation, illegal connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.
3. A person is considered to be in violation of this Code if the person connects a line conveying sewage to the MS4, or allows such a connection to continue.

#### **Section 8 – Suspension of MS4 Access**

**8.1** The Public Works Department may, without prior notice, suspend MS4 discharge access to a person when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, or to the health or

welfare of persons, or to the MS4 or Waters of the United States. If the violator fails to comply with a suspension order issued in an emergency, the authorized enforcement agency may take such steps as deemed necessary to prevent or minimize damage to the MS4 or Waters of the United States, (as locally defined within the jurisdiction of the City of Prescott) or to minimize danger to persons.

**8.2** Any person discharging to the MS4 in violation of this Code may have their MS4 access terminated if such termination would abate or reduce an illegal discharge. The authorized enforcement agency will notify a violator of the proposed termination of its MS4 access. The violator may petition the authorized enforcement agency for a reconsideration and hearing.

**8.3** A person commits an offense if the person who has been suspended under this section reinstates MS4 access to premises terminated pursuant to this Section, without the prior approval of the authorized enforcement agency.

### **Section 9 – Industrial or Construction Activity Discharges**

Any person subject to an industrial or construction activity NPDES storm water discharge permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the Public Works Department prior to the allowing of discharges to the MS4.

### **Section 10 – Monitoring of Discharges**

**10.1** Applicability – This section applies to all facilities that have storm water discharges associated with industrial activity, including construction activity.

**10.2** Access to Facilities.

1. The Public Works Department shall be permitted to enter and inspect facilities subject to regulation under this Code as often as may be necessary to determine compliance with this Code. If a discharger has security measures in force which require proper identification and clearance before entry into its premises, the discharger shall make the necessary arrangements to allow access to representatives of the authorized enforcement agency.

2. Facility operators shall allow the Public Works Department ready access to all parts of the premises for the purposes of inspection, sampling, examination and copying of records that must be kept under the conditions of an NPDES permit to discharge storm water, and the performance of any additional duties as defined by state and federal law.

3. The Public Works Department shall have the right to set up on any permitted facility such devices as are necessary in the opinion of the authorized enforcement agency to conduct monitoring and/or sampling of the facility's storm water discharge.

4. The Public Works Department has the right to require the discharger to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the discharger at its own expense. All devices used to measure stormwater flow and quality shall be calibrated to ensure their accuracy.

5. Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the operator at the written or oral request of Public

Works Department and shall not be replaced. The costs of clearing such access shall be borne by the operator.

6. Unreasonable delays in allowing the Public Works Department access to a permitted facility is a violation of a storm water discharge permit and of this Code. A person who is the operator of a facility with a NPDES permit to discharge storm water associated with industrial activity commits an offense if the person denies the authorized enforcement agency access to the permitted facility for the purpose of conducting any activity authorized or required by this Code.

7. If the Public Works Department has been refused access to any part of the premises from which stormwater is discharged, and he/she is able to demonstrate probable cause to believe that there may be a violation of this Code, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with this Code or any order issued hereunder, or to protect the overall public health, safety, and welfare of the community, then the authorized enforcement agency may seek issuance of a search warrant from any court of competent jurisdiction.

### **Section 11 – Requirements to Prevent, Control, and Reduce Storm Water Pollutants by the Use of Best Management Practices**

**11.1** Public Works Department will adopt regulations identifying Best Management Practices for any activity, operation, or facility which may cause or contribute to pollution or contamination of storm water, the storm drain system, or waters of the U.S.

**11.2** The owner or operator of a commercial or industrial establishment shall provide, at their own expense, reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal storm drain system or watercourses through the use of these structural and non-structural BMPs. Further, any person responsible for a property or premise, which is, or may be, the source of an illegal discharge, may be required to implement, at said person's or entities expense, additional structural and non-structural BMPs to prevent the further discharge of pollutants to the municipal separate storm sewer system.

**11.3** Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of storm water associated with industrial activity, to the extent practicable, shall be deemed compliance with the provisions of this section. These BMPs shall be part of a stormwater pollution prevention plan (SWPPP) as necessary for compliance with requirements of the NPDES permit.

### **Section 12 – Watercourse Protection**

**12.1** Every person owning property through which a watercourse passes, or such person's lessee (persons or entities leasing property, shall keep and maintain that part of the watercourse within the property free of trash, debris, excessive vegetation, and other obstacles that would pollute, contaminate, or significantly retard the flow of water through the watercourse.

**12.2** In addition, the owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse.

### **Section 13 – Notification of Spills**

**13.1** Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation who has information of any known or suspected release of materials which are resulting or may result in illegal discharges or pollutants discharging into storm water, the storm drain system, or water of the U.S. or local waterway depicted in said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release.

**13.2** In the event of such a release of hazardous materials said person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. For purposes of this section, emergency dispatch services shall mean City of Prescott Regional Community Center, (928)

**13.3** In the event of a release of non-hazardous materials, said person shall notify the authorized enforcement agency in person or by phone or facsimile no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the Public Works Department within three business days of the phone notice.

**13.4** If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three years.

#### **Section 14 – Enforcement**

**14.1** Notice of Violation (Civil). Whenever the Public Works Department finds that a person has violated a prohibition or failed to meet a requirement of this Code, Public Works shall forward its report to any authorized enforcement agency which may order compliance by written notice of violation to the responsible person. Such notice may require without limitation:

1. The performance of monitoring, analyses, and reporting;
2. The elimination of illegal connections or discharges;
3. That violating discharges, practices, or operations shall cease and desist;
4. The abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property; and
5. Payment of an assessment to cover administrative and remediation costs; and
6. The implementation of source control or treatment BMPs.

**14.2** If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such remediation or restoration must be completed. Said notice shall further advise that, should the violator fail to remediate or restore within the established deadline, the work will be done by a designated governmental agency or a contractor and the expense thereof shall be charged to the violator and may be filed as a lien upon the property in accordance with appropriate legal procedures.

#### **Section 15 – Appeal of Notice of Violation**

Any person receiving a Notice of Violation may appeal the determination of the authorized enforcement agency. The notice of appeal must be received within 2 days from the date of the Notice of Violation. Hearing on the appeal before the designee of the Public Works Director shall take place within 10 days from the date of receipt of the notice of appeal. The decision of the municipal authority or their designee shall be final.

#### **Section 16 – Enforcement Measures after Appeal**

If the violation has not been corrected pursuant to the requirements set forth in the Notice of Violation, or, in the event of an appeal, within 5 days of the decision of the municipal authority upholding the decision of the authorized enforcement agency, then representatives of the authorized enforcement agency shall enter upon the subject private property and are authorized to take any and all measures necessary to abate the violation and/or restore the property. It shall be unlawful for any person, owner, agent or person in possession of any premises to refuse to allow the government agency or designated contractor to enter upon the premises for the purposes set forth above.

#### **Section 17 – Cost of Abatement of the Violation**

Within 7 days after abatement of the violation, the owner of the property will be notified of the cost of abatement, including administrative costs. The property owner may file a written protest objecting to the amount of the assessment within 3 days. If the amount due is not paid within a timely manner as determined by the decision of the municipal authority or by the expiration of the time in which to file an appeal, the charges shall become a special assessment against the property and shall constitute a lien on the property for the amount of the assessment. Any person violating any of the provisions of this article shall become liable to the city by reason of such violation. The liability shall be paid in not more than 12 equal payments. Interest at the rate of percent per annum shall be assessed on the balance beginning on the 30th day following discovery of the violation.

#### **Section 18 – Injunctive Relief**

It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of this Code. If a person has violated or continues to violate the provisions of this Code, the authorized enforcement agency may petition for a preliminary or permanent injunction restraining the person from activities which would create further violations or compelling the person to perform abatement or remediation of the violation.

#### **Section 19 – Appeal of Notice of Violation**

In lieu of enforcement proceedings, penalties, and remedies authorized by this Code, the authorized enforcement agency may impose upon violator alternative compensatory actions, such as storm drain stenciling, attendance at compliance workshops, creek cleanup, etc.

#### **Section 20 – Violations Deemed A Public Nuisance**

In addition to the enforcement processes and penalties provided, any condition caused or permitted to exist in violation of any of the provisions of this Code is a threat to public health, safety, and welfare, and is declared and deemed a nuisance, and may be summarily abated or restored at the violator's expense, and/or a civil action to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken.

### **Section 21 – Criminal Prosecution**

**21.1** Any person that has violated or continues to violate this Code shall be liable to criminal prosecution to the fullest extent of the law and any violations of this code may be punished as a class 1 misdemeanor, and shall be subject to a criminal penalty of not more than \$2,500 dollars per violation per day and may be punishable by incarceration or jail for a period of up to six months. Each day a violation continues may constitute a separate violation, punishable as state law.

**21.2** The authorized enforcement agency may recover all attorneys' fees court costs and other expenses associated with enforcement of this Code, including sampling and monitoring expenses.

### **Section 22 – Remedies Not Exclusive**

The remedies listed in this Code are not exclusive of any other remedies available under any applicable federal, state or local law and it is within the discretion of the authorized enforcement agency to seek cumulative remedies.

(Ord. 4983-1521, 6-7-2016)

### **16-5-2 PENALTY – CRIMINAL:**

Any person who violates any provisions of this chapter or any provision of the codes adopted by reference pursuant to this chapter shall be guilty of a misdemeanor, and upon conviction thereof shall be punished as provided in Section [1-3-1](#), by a fine not exceeding two thousand five hundred dollars (\$2,500.00) or by imprisonment for not more than six (6) months, or by both such fine and imprisonment, in the discretion of the City Judge. Each and every day any such violation continues shall be deemed and considered a separate offense. (Ord. 4983-1521, 6-7-2016)

### **16-5-3 PENALTY – CIVIL:**

Any person who violates any provisions of this chapter shall be guilty of a civil violation and shall be subject to the provisions of Section [1-3-2](#) for each day that the violation continues. (Ord. 4636-0838, 12-11-07; eff. 01-10-08; Ord. 4983-1521, 6-7-2016)

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**The Prescott City Code is current through Ordinance 5021, passed January 24, 2017.**

Disclaimer: The City Clerk's Office has the official version of the Prescott City Code. Users should contact the City Clerk's Office for ordinances passed subsequent to the ordinance cited above.

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## CHAPTER 16-6: 2007 CITY OF PRESCOTT POST CONSTRUCTION STORMWATER RUNOFF CODE

[16-6-1:](#) ADOPTION OF THE 2007 CITY OF PRESCOTT POST CONSTRUCTION  
STORMWATER RUNOFF CODE:

[16-6-2:](#) PENALTY – CRIMINAL:

[16-6-3:](#) PENALTY – CIVIL:

### 16-6-1 ADOPTION OF THE 2007 CITY OF PRESCOTT POST CONSTRUCTION STORMWATER RUNOFF CODE:

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That certain document entitled the 2007 City of Prescott Post Construction Stormwater Runoff Code, together with all referenced standards therein and together with appendices, which document was made a public record by Resolution No. 3873-0841 is hereby adopted by this reference. (This document is show below as a courtesy to users.)

#### Section 1 – General Provisions

**1.1** The purpose of this ordinance is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing in watersheds within this jurisdiction. This ordinance seeks to meet that purpose through the following objectives:

1. Minimize increases in stormwater runoff from any development in order to reduce flooding, siltation and stream-bank erosion and maintain the integrity of stream channels;
2. Minimize increases in non-point source pollution caused by stormwater runoff from development which would otherwise degrade local water quality;
3. Minimize the total annual volume of surface water runoff which flows from any specific site during and following development to not exceed the pre-development hydrologic regime to the maximum extent practicable;
4. Reduce stormwater runoff rates and volumes, soil erosion and non-point source pollution, wherever possible, through stormwater management controls and to ensure that these management controls are properly maintained and pose no threat to public safety.

**1.2** This ordinance shall be applicable to all subdivision or site plan applications, unless eligible for an exemption or granted a waiver by the City of Prescott under the specifications of Section 4 of this ordinance. The ordinance also applies to land development activities that are smaller than the minimum applicability criteria if such activities are part of a larger common plan of development.

**1.3** This ordinance is not intended to interfere with, abrogate, or annul any other ordinance, rule or regulation, statute, or other provision of law. The requirements of this ordinance should be considered minimum requirements, and where any provision of this ordinance imposes restrictions different from those imposed by any other ordinance, rule or regulation, or other provision of law, whichever provisions are more restrictive or impose higher protective standards for human health or the environment shall be considered to take precedence.

**1.4** This Ordinance is written to be compatible with, and used in conjunction to the City's Construction Site Erosion and Sediment Control Ordinance; and any repetitive sections or requirements are intended as required under the federal Clean Water Act and the National Pollution Discharge Elimination System (NPDES) regulations.

**1.5** If the provisions of any article, section, subsection, paragraph, subdivision or clause of this ordinance shall be judged invalid by a court of competent jurisdiction, such order of judgment shall not affect or invalidate the remainder of any article, section, subsection, paragraph, subdivision or clause of this ordinance.

**1.6** The City of Prescott may furnish additional policy, criteria and information including specifications and standards, for the proper implementation of the requirements of this ordinance and may provide such information by amending the City of Prescott Drainage Criteria Manual. This manual will include a list of acceptable stormwater treatment practices, including the specific design criteria and operation and maintenance requirements for each stormwater practice. Stormwater treatment practices that are designed and constructed in accordance with these design and sizing criteria will be presumed to meet the minimum water quality performance standards.

## **Section 2 – Definitions**

**Accelerated Erosion** – Erosion caused by development activities that exceeds the natural processes by which the surface of the land is worn away by the action of water, wind, or chemical action.

**Enforcement Agency** – Any employees or designees of the Director of Public Works designated to enforce this regulation.

**Applicant** – Any property owner or agent of a property owner who has filed an application for a stormwater management permit.

**Arizona Department of Environmental Quality (ADEQ)** – is the state agency charged with enforcement of environmental laws and regulations.

**Building** – Any structure, either temporary or permanent, having walls and a roof, designed for the shelter of any person, animal, or property, and occupying more than 100 square feet of area.

**Channel** – Any natural or artificial watercourse with a definite bed and banks that conducts continuously or periodically flowing water.

**Dedication** – The deliberate appropriation of property by its owner for general public use.

**Detention** – The temporary storage of storm runoff in a stormwater management practice with the goals of controlling peak discharge rates and providing gravity settling of pollutants.

**Detention Facility** – A basin or alternative structure designed for the purpose of temporary storage of stream flow or surface runoff and gradual release of stored water at controlled rates.

**Developer** – Any person who undertakes land disturbance activities.

**Drainage Easement** – A legal right granted by a landowner to a grantee allowing the use of private land for stormwater management purposes.

**Drainage Way** – Any man-made or natural channel or device that conveys concentrated or sheet-flow surface runoff through, across or over a site.

**Fee in Lieu** – A payment of money in place of meeting all or part of the storm water performance standards required by this ordinance.

**Hotspot** – An area where land use or activities generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in stormwater.

**Impervious Cover** – Surfaces that cannot effectively infiltrate rainfall (e.g., building rooftops, pavement, sidewalks, driveways, etc.).

**Industrial Stormwater Permit** – The National Pollutant Discharge Elimination System permit issued to a commercial industry or group of industries which regulates the pollutant levels associated with industrial stormwater discharges or specifies on-site pollution control strategies.

**Infiltration** – The process of percolating or absorption of stormwater into surface and subsurface soils or other filtration mediums.

**Infiltration Facility** – Any structure or device designed to accommodate or promote infiltration of captured site runoff for pollutant removal. These facilities may be above grade or below grade.

**Jurisdictional Wetland** – An area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions.

**Land Disturbance Activity** – Any activity which changes the volume or peak flow discharge rate of rainfall runoff from the land surface. This may include the grading, digging, cutting, scraping, or excavating of soil, placement of fill materials, paving, construction, substantial removal of vegetation, or any activity which bares soil or rock or involves the diversion or piping of any natural or man-made watercourse.

**Landowner** – The legal or beneficial owner of land, including those holding the right to purchase or lease the land, or any other person holding proprietary rights in the land.

**Maintenance Agreement** – Any legally recorded document that acts as a property deed restriction, and which provides for long-term maintenance of storm water management practices.

**Non-point Source Pollution** – Pollution from any source other than from any discernible, confined, and discrete conveyances, and shall include, but not be limited to, pollutants from agricultural, mining, construction, subsurface disposal and urban runoff sources.

**Offset Fee** – A monetary compensation paid to a local government for failure to meet pollutant load reduction targets.

**Off-Site Facility** – A stormwater management measure located outside the subject property boundary described in the permit application for land development activity.

**On-Site Facility** – A stormwater management measure located within the subject property boundary described in the permit application for land development activity.

**Site** – A parcel of land or a contiguous combination thereof, where grading work is performed as a single unified operation.

**Stabilization** – The use of practices that prevent exposed soil from eroding.

**Start of Construction** – The first land-disturbing activity associated with a development, including land preparation such as clearing, grading, and filling or any other site related activity.

**Stop Work Order** – An order issued which requires that all construction activity on a site be stopped.

**Stormwater Management** – The use of structural or non-structural practices that are designed to reduce storm water runoff pollutant loads, discharge volumes, peak flow discharge rates and detrimental changes in stream temperature that affect water quality and habitat.

**Stormwater Runoff** – Flow on the surface of the ground, resulting from precipitation.

**Stormwater Treatment Practices (STP)** – Measures, either structural or nonstructural, that are determined to be the most effective, practical means of preventing or reducing point source or non-point source pollution inputs to stormwater runoff and water bodies.

**Water Quality Volume (WQV)** – The storage needed to capture and treat 90% of the average annual stormwater runoff volume. Numerically WQV will vary as a function of long term rainfall statistical data.

**Watercourse** – Any body of water, including but not limited to lakes, ponds, seasonal and perennial creeks, and wetlands delineated by the City of Prescott.

**Waterway** – Any channel or device that directs surface runoff to a watercourse or to a public storm drain.

### **Section 3 – Permit Requirements**

All applicable aspects of this code shall be reviewed and approved as part of the City of Prescott Site Disturbance and Grading Permit as required under City of Prescott development and permitting regulations.

### **Section 4 – Waivers to Stormwater Management Requirements**

**4.1** Requests to waive the stormwater management plan requirements shall be submitted to the City of Prescott for review. The minimum requirements for stormwater management may be waived in whole or in part upon written request of the applicant, provided that at least one of the following conditions applies:

1. Alternative minimum requirements for on-site management of stormwater discharges have been established in a stormwater management plan that has been approved by the City of Prescott.
2. Provisions are made to manage stormwater by an off-site facility approved by the City of Prescott. The off-site facility is required to be in place, to be designed and adequately sized to provide a level of stormwater control that is equal to or greater than that which would be afforded by on-site practices and there is a legally obligated entity responsible for long-term operation and maintenance of the stormwater practice.

**4.2** Where compliance with minimum requirements for stormwater management is waived, the applicant will satisfy the minimum requirements by meeting one of the mitigation measures

selected by the City of Prescott. Mitigation measures may include, but are not limited to, the following:

1. The purchase and donation of privately owned lands, or the grant of an easement to be dedicated for preservation and/or reforestation. These lands should be located adjacent to the stream corridor in order to provide permanent buffer areas to protect water quality and aquatic habitat.
2. The creation of a stormwater management facility or other drainage improvements on previously developed properties, public or private, that currently lack stormwater management facilities designed and constructed in accordance with the purposes and standards of this ordinance.
3. Monetary contributions (Fee-in-Lieu) to fund stormwater management activities such as research and studies (e.g., regional wetland delineation studies, stream monitoring studies for water quality and macro-invertebrates, stream flow monitoring, threatened and endangered species studies, hydrologic studies, and monitoring of stormwater management practices).

**4.3** When an applicant obtains a waiver of the required stormwater management, the monetary contribution required shall be in accordance with a fee schedule or by an agreed valuation established by the City of Prescott. All of the monetary contributions shall be credited to an appropriate capital improvements program project, and shall be made by the developer prior to the issuance of any building permit for the development.

**4.4** In lieu of a monetary contribution an applicant may, if agreed to by the City of Prescott, obtain a waiver of the required stormwater management by entering into an agreement with the City of Prescott, for the granting of an easement or the dedication of land by the applicant, to be used for the construction of an off-site stormwater management facility. The agreement shall be entered into by the applicant and the City of Prescott prior to the recording of plats or, if no record plat is required, prior to the issuance of the building permit.

### **Section 5 – General Performance Criteria for Stormwater Management**

**5.1** All site designs shall establish stormwater management practices to control the peak flow rates of stormwater discharge associated with specified design storms and reduce the generation of stormwater.

**5.2** All stormwater runoff generated from new development shall not discharge untreated stormwater directly into a jurisdictional wetland, local water body, or storm sewer system without adequate treatment.

**5.3** For new development, structural Stormwater Treatment Practices (STP) shall be designed to remove post development total suspended solids (TSS) by capture of the "first flush" event. It is presumed that a STP complies with this performance standard if it is:

1. Sized to capture the prescribed water quality volume (WQV).
2. Designed according to the specific performance criteria outlined in the City of Prescott Drainage Criteria Manual, ADEQ, or ADOT design manual.
3. Constructed properly.

4. Maintained regularly.

**5.4** Specific channel protection shall be provided as prescribed in the current City of Prescott Drainage Criteria Manual to protect stream channels from degradation.

**5.5** Stormwater discharges to critical areas with sensitive resources (i.e., swimming beaches or public recreation areas, water supply reservoirs, etc.) may be subject to additional performance criteria, or may need to utilize or restrict certain stormwater management practices.

**5.6** Stormwater discharges from land uses or activities with higher potential pollutant loadings, known as "hotspots", may require the use of specific structural STPs and pollution prevention practices.

**5.7** Prior to design, applicants are required to consult with the City of Prescott to determine if they are subject to additional stormwater design requirements.

**5.8** The calculations for determining peak flows as found in the City of Prescott Drainage Criteria Manual shall be used for sizing all stormwater management practices.

### **Section 6 – Enforcement and Penalties**

**6.1** Any development activity that is conducted contrary to this Ordinance may be restrained by injunction or otherwise abated in a manner provided by law.

**6.2** When or if the City of Prescott determines that an activity is not being carried out in accordance with the requirements of this Ordinance, it shall issue a written notice of violation to the owner of the property.

**6.3** Persons receiving a notice of violation will be required to halt all construction activities. This "stop work order" will be in effect until the City of Prescott confirms that the development activity is in compliance and the violation has been satisfactorily addressed. Failure to address a notice of violation in a timely manner can result in civil, criminal, or monetary penalties in accordance with the enforcement measures authorized in this ordinance.

**6.4** Civil and Criminal Penalties. In addition to or as an alternative to any penalty provided herein or by law, any person who violates the provisions of this Ordinance shall be punished by a fine of not less than Twenty-Five Hundred Dollars (\$2,500.00) or by imprisonment for a period not to exceed (30) days, or both such fine and imprisonment. Such person shall be guilty of a separate offense for each day during which the violation occurs or continues.

**6.5** Occupation permits may be withheld until any and all corrections to all stormwater practices have been made and accepted by the City of Prescott.

(Ord. 4983-1521, 6-7-2016)

### **16-6-2 PENALTY – CRIMINAL:**

Any person who violates any provisions of this chapter or any provision of the codes adopted by reference pursuant to this chapter shall be guilty of a misdemeanor, and upon conviction thereof shall be punished as provided in Section [1-3-1](#), by a fine not exceeding two thousand five hundred dollars (\$2,500.00) or by imprisonment for not more than six (6) months, or by both such fine and

imprisonment, in the discretion of the City Judge. Each and every day any such violation continues shall be deemed and considered a separate offense. (Ord. 4983-1521, 6-7-2016)

**16-6-3 PENALTY – CIVIL:**

---

Any person who violates any provisions of this chapter shall be guilty of a civil violation and shall be subject to the provisions of Section [1-3-2](#) for each day that the violation continues. (Ord. 4637-0839, 12-11-07; eff. 01-10-08; Ord. 4983-1521, 6-7-2016)

---

**The Prescott City Code is current through Ordinance 5021,  
passed January 24, 2017.**

Disclaimer: The City Clerk's Office has the official version of the Prescott City Code. Users should contact the City Clerk's Office for ordinances passed subsequent to the ordinance cited above.



## **ATTACHMENT J**

### **IDDE INSPECTION/INVESTIGATION SOP**

# Illicit Discharge Detection and Elimination Standard Operating Procedures

*Prepared for:*



City of Prescott  
430 N Virginia Street  
Prescott, AZ 86301

*Prepared by:*



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February 2017

## 1.0 Introduction

This document presents the City of Prescott's plan for illicit discharge detection and elimination (IDDE) activities in compliance with requirements outlined in AZPDES Phase II General Permit No. AZG2016-002 (Permit). The Permit requires the City to develop an IDDE program that contains a set of standard investigative procedures to identify the source of illicit connections and discharges and to require their removal from the system. Although the Permit does not outline specific procedures to follow, the IDDE program must, to the maximum extent practical (MEP), implement efforts to find and remove illicit discharges as well as to increase knowledge of the stormwater collection system and pollutants of concern.

## 2.0 Important Terminology and Key Concepts

### Pollutants of Concern

The three illicit discharges most commonly found in urban settings include:

1. **Pathogenic and toxic pollutants** should be considered the most severe since contact or consumption of storm water contaminated by these pollutants could cause illness and significant water treatment problems for downstream users. These pollutants may originate from:
  - Sanitary, commercial, and industrial wastewater;
  - Inappropriate household toxicant disposal;
  - Automobile engine degreasing; and
  - Excessive use of chemicals (pesticides, herbicides, and fertilizers).
2. **Nuisance pollutants** offer aquatic life threatening conditions to the storm drainage system. These pollutants can cause excessive dissolved oxygen depletions, tastes, odors, and colors in downstream water supplies, algal blooms, offensive floatables, and noticeably turbid water. These pollutants may originate in residential and commercial areas from:
  - Sanitary wastewaters;
  - Laundry wastewaters;
  - Lawn irrigation runoff;
  - Automobile wash waters;
  - Construction site dewatering; and
  - Washing of concrete ready-mix trucks.
3. **Relatively clean water** discharged through a storm drainage system is commonly found during an outfall inventory. Relatively clean water discharges can originate from the following:
  - Fire hydrant flushing;
  - Infiltrating groundwater; and
  - Infiltration from potable waterline leak.

Pathogenic and nuisance pollutants should be prioritized in a manner that ensures prompt action in the source identification process as these types of pollutants have the most harmful effects to the environment.

### Allowable Discharges

Non-stormwater discharges allowed under General Permit No. AZG2016-002, section 1.3.2 that are not considered “illicit” include:

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

### Illicit Discharge

The term illicit discharge is defined in the Permit as:

“...any discharge to a municipal separate storm sewer that is not comprised entirely of stormwater except discharges pursuant to a AZPDES/NPDES permit (other than the AZPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from firefighting activities.”

### Source Identification

Source identification are the office and field tasks used to track a potential illicit discharge to the source and determine if the discharge is in fact an illicit based on analysis of samples taken or investigation conducted.

## **3.0 Summary of City IDDE Procedures**

This section summarizes the City’s systematic approach to eliminating illicit discharges.

### **3.1 Report of Potential Illicit Discharges to the Code Enforcement Division**

The process begins through the identification of a potential illicit discharge. Identification is expected to be achieved by internal reporting from City personnel, external reporting/complaints, and outfall and field screening point visual assessments.

#### **3.1.1 Internal Reporting**

Through implementing the City’s stormwater training program, many City employees will be educated on illicit discharge recognition and reporting. Reports of potential illicit discharges are received from employees from various City departments (e.g. Law Enforcement, Public Works maintenance crews) during their ordinary course of work. Observations are reported through field crew supervisors to the Code Enforcement Division or Environmental Coordinator.

### 3.1.2 External Observation

Citizens, visitors, and others are able to notify the Environmental Coordinator or Code Enforcement Division of the presence of potential illicit discharges. These complaints are received through the 24/7 complaint hotline (928.442.CODE), or on the online complaint hotline form at <https://prescott.seamlessdocs.com/f/LtQO7d>. The reporter can upload a photo and provide a description of the potential illicit discharge. Quick transmittal of information can help improve the prioritization and response time by City personnel.

### 3.1.3 Visual Monitoring

#### Dry Weather Outfall Monitoring

During dry weather the AZPDES Coordinator performs annual outfall screening of each regulated outfall at least 72 hours after a storm event that results in a discharge from the storm sewer system. This process will be the primary method for detecting illicit connections. If an outfall is found to be discharging during the dry weather outfall screening, the potential illicit discharge tracking steps outlined in Section 4.1 should be initiated. See Appendix A for IDDE Inspection/Investigation Forms, Instructions, and Flowchart.

#### Visual Stormwater Discharge Monitoring

City staff will perform a visual inspection of at least 5 outfalls locations, 2 times during each wet season. For the purposes of wet weather monitoring, the summer and winter wet seasons are defined as:

Summer wet season is June 1st through October 31st  
Winter wet season is November 1st through May 31st.

Results of visual discharge monitoring are recorded on a Discharge Monitoring Report (DMR) for submittal with the annual report.

The grab samples should be collected in clear plastic containers for analysis. The samples should be analyzed in the field for the following parameters:

- Color
- Odor
- Clarity
- Floating, Settled, and Suspended Solids
- Foam
- Sheen

If determined necessary samples may be collected and analyzed in a lab for parameters of potential concern.

In the event City personnel or their contractor cannot access any outfall(s) or screening point during a wet weather discharge, the City will conduct wet weather screening as soon as practicable after the storm or discharge event.

See Appendix A for IDDE Inspection/Investigation Forms, Instructions, and Flowchart.

## **4.0 Illicit Discharge Source Identification**

The identification step has two primary components: 1) Potential illicit discharge tracking to identify the source, and 2) illicit elimination through enforcement or notification. These steps apply only to the instances in which the potential illicit discharge is flowing into the MS4.

### **4.1 Potential Illicit Discharge Tracking and Source Identification**

The first step in the source identification process is to track the discharge up to the source. The source can be tracked upstream either to the actual pollution causing event (e.g. vehicle accident with spilled fuel, illegal connection of car wash drain to storm system) or until a system owned by another entity is encountered.

The AZPDES Coordinator will begin the tracking process at the potential illicit discharge location. The procedure is the same regardless of how the discharge was discovered (screening, internal or external reporting). The following steps should be generally followed:

1. At an outfall where a dry weather flow or visual assessment containing pollutants was collected was found or at the initial point of discovery of the discharge, physical parameters of the flow should be recorded.
2. If the discharge continues upstream and can be tracked, move upstream in the direction of the discharge. Continue investigation at each intersection until the 1) source is found, 2) or the discharge can no longer be tracked upstream (e.g. underground, between manholes) is encountered.

### **4.2 Illicit Discharge Detection**

Once a potential illicit flow has been tracked to the source or where no further visual evidence can be collected, Enforcement Officers or Environmental Coordinator must determine if the flow is an illicit discharge.

## **5.0 Follow-up**

If illicit discharge or illegal dumping is detected a full investigation into the pollutant source will be conducted. If the contaminant is discovered at a piped outfall, upstream manholes will be inspected to determine the discharge location. A camera truck may also be implemented to trace the location of discharge from within the pipe. See the Enforcement Response Plan (ERP) for the enforcement procedure process.

## **6.0 Reporting and Enforcement**

Reporting and enforcement are the final steps to removing illicit discharges. At this point, a discharge is known to be an illicit and the source has been positively identified or the discharge was tracked as far as possible. The steps outlined in the ERP can now be implemented.

## **APPENDIX A**

**IDDE INSPECTION/INVESTIGATION :  
INSTRUCTIONS  
FLOWCHART  
FORMS**

# Instructions for Completing the IDDE Inspection/Investigation Form

## Section 1: Background Data

Enter the outfall or screening point identification number from the stormwater outfall inventory. Include the: date including day month and year, name of the person or persons conducting the inspection/investigation, and a concise description of the weather conditions at the time of the assessment including approximate temperature. Note whether there has been measureable rainfall in the investigation area within the last 72 hours. Check the appropriate box for the type of assessment being conducted, and document observations with photographs whenever possible. Cameras that automatically date and time stamp photographs are preferred. Photographs should be appended to the final copy of the form and included in the electronic version of the form as well.

## Section 2: Physical Indicators

This section provides a description of the condition of the outfall. These physical indicators may provide evidence that illicit discharges have occurred when there is no flow at the time of the investigation. **This section is to be completed whether or not there is flow.**

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

### Flow Chart Procedure:

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

## Section 3: Discharge Description (Flowing Outfalls Only)

Complete table describing outfall characteristics (odor, color, turbidity, floatables). This section is filled out for flowing outfalls only. After documenting the physical properties of the discharge, the field crew should attempt to trace the flow to its source. If the flow originates underground and access to manholes in roadways is required for tracking, the process may need to be delayed until proper safety procedures (traffic control, confined space entry, etc.) can be arranged.

### Flow Chart Procedure:

- If the discharge can be tracked, implement tracking procedures and identify the source.
- If the discharge cannot be tracked and shows signs of significant contamination, conduct field screening.

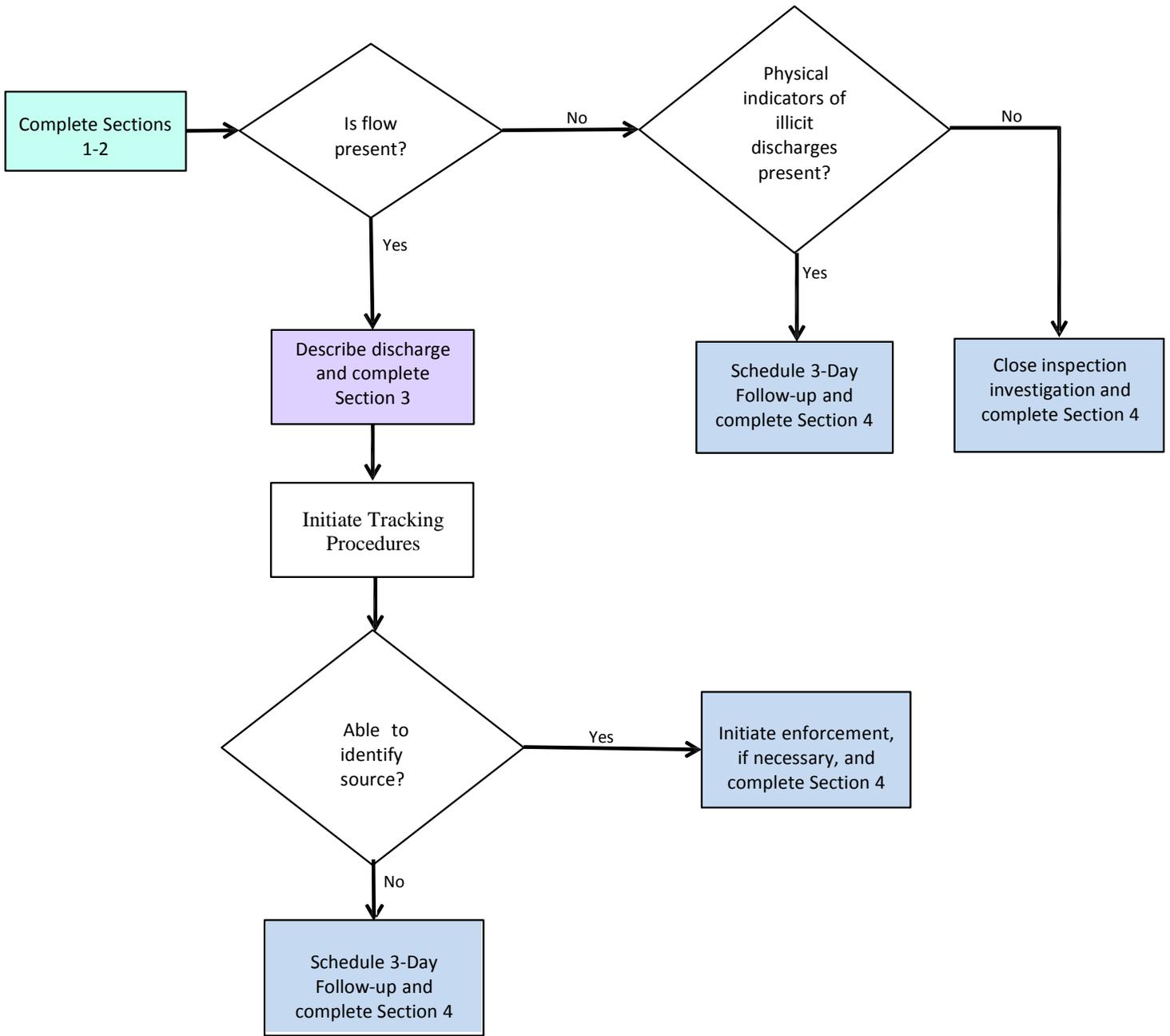
## Section 4: Enforcement and Resolution

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

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

Source/Resolution: Describe the source if found and final resolution.

FLOW CHART FOR IDDE INSPECTION/INVESTIGATION FORM  
CITY OF PRESCOTT



**IDDE INSPECTION/INVESTIGATION FORM  
CITY OF PRESCOTT**



**Section 1: Background Data**

Outfall ID:	Date:	Time:
Inspector/Investigator:		
<input type="checkbox"/> Dry Weather Inspection <input type="checkbox"/> IDDE Investigation <input type="checkbox"/> 3-Day Follow-up Inspection <input type="checkbox"/> Visual Assessment (If so, check sampling description boxes below) <input type="checkbox"/> Sampling Event #1 <input type="checkbox"/> Sampling Event #2 <input type="checkbox"/> Summer Wet Season (6/1 - 10/1) <input type="checkbox"/> Winter Wet Season (11/1 – 5/31)		
Photos? <input type="checkbox"/> Yes <input type="checkbox"/> No      If yes, append photos to this report.		
Precipitation w/in last 72 hours? <input type="checkbox"/> Yes <input type="checkbox"/> No Approximate Rainfall (in) _____		Weather (approx. temp, etc.):
Land Use in Drainage Area (check all that apply):	<input type="checkbox"/> Open Space Other: _____ Known Industries: _____	
<input type="checkbox"/> Industrial <input type="checkbox"/> Residential <input type="checkbox"/> Commercial		

**Section 2: Physical Indicators**

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





**ATTACHMENT K**  
**WATER QUALITY MONITORING PLAN**

## **WATER QUALITY MONITORING PLAN**

In accordance with the  
Arizona Pollutant Discharge Elimination System  
General Permit for Stormwater Discharges from  
Small Municipal Separate Storm Sewer Systems  
Permit No. AZG2016-002  
Effective: September 30, 2016

Prepared for:



Public Works Department  
433 N. Virginia Street  
Prescott, AZ 86301

Prepared By:



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March 2017

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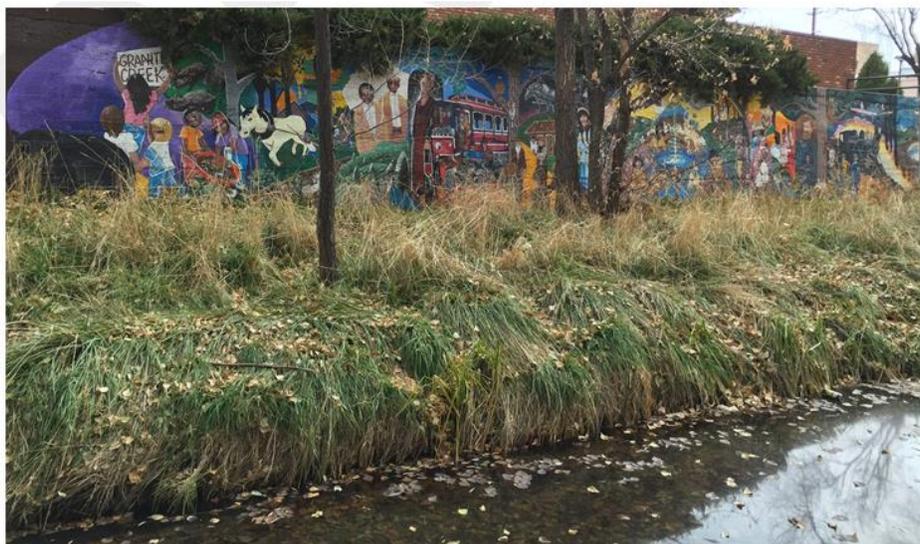
## EXECUTIVE SUMMARY

This Water Quality Monitoring Plan (Plan) has been prepared in response to the requirements outlined in the Arizona Pollutant Discharge Elimination System (AZPDES) permit for stormwater discharges from Small Municipal Separate Storm Sewer Systems (MS4) to waters of the United States, issued by the Arizona Department of Environmental Quality (ADEQ) on September 29, 2016, effective September 30, 2016. This Plan is a road map to assist the City of Prescott in implementing the wet weather monitoring requirements outlined in the Permit.

This Plan incorporates monitoring activities associated with compliance with two Total Maximum Daily Load (TMDL) documents. The Arizona Department of Environmental Quality (ADEQ) published TMDL documents that address *Escherichia coli* (*E. coli*) impairments in the Upper Granite Creek Watershed and nutrient impairments entering Watson Lake Reservoir. The City is preparing to implement a number of measures to proactively identify and mitigate sources of pollutants contributing to the TMDLs for both the Upper Granite Creek Watershed as well as Watson Lake Reservoir. In addition, monitoring will be conducted on outfalls discharging to Willow Creek Reservoir. ADEQ has formally listed Willow Creek Reservoir as impaired for ammonia; however, a TMDL has not yet been developed.

Seasonal wet weather monitoring will be conducted at two outfalls per impaired water each wet season. The outfalls will be monitored on a rotating basis. The City has identified 153 outfalls from which the City will perform monitoring each wet season. Required parameters for analysis vary by receiving water but generally include dissolved oxygen, *E.Coli*, and/or Ammonia. Additional parameters for monitoring that may be included in the sampling effort in support of the TMDLs include: microbial source tracking (MST) markers for *E.coli*, phosphorus, TSS, SSC, and turbidity.

This Plan also includes a voluntary street dirt sampling program. This street dirt sampling program is designed to provide beneficial information in performing the modeling needed for compliance with the TMDLs and in recommending the most efficient BMPs.



**Photo 1: Art work along Granite Creek**

## **1.0 INTRODUCTION AND BACKGROUND**

### **1.1 Regulatory Background**

The 1987 Water Quality Act, U.S. Environmental Protection Agency (EPA) regulations in Title 40, Code of Federal Regulations Part 122 (40 CFR 122) require that certain municipalities apply for a National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharged to surface waters of the United States. The EPA delegated permitting authority under the NPDES program to the State of Arizona in 2002. The Arizona Department of Environmental Quality (ADEQ) issued the Arizona Pollutant Discharge Elimination System General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (MS4) to waters of the United States, on December 19, 2002. The MS4 permit expired on December 19, 2007 and was superseded by MS4 permit issued on September 29, 2016, effective September 30, 2016.

Associated with the terms of the MS4 Permit is the need to characterize the storm drainage areas, monitor the stormwater quality and implement best management practices (BMPs) to improve stormwater quality to comply with both the Watson Lake Reservoir and Upper Granite Creek Watershed Total Maximum Daily Loads (TMDLs) requirements. In March 2015, ADEQ issued the Final Report “Watson Lake TMDL: Total Nitrogen, DO, pH, and Total Phosphorus”. In October 2015, ADEQ issued the Draft Final Report “Upper Granite Creek Watershed *E.coli* TMDL. To comply with TDML requirements, the City will need to implement both structural and operational (non-structural) BMPs. BMP selection will be based on the results from modeling the Reservoir and watershed. The models for the Reservoir and Watershed are based on a number of factors including analytical data obtained through activities outlined in this monitoring plan.

### **1.2 Hydrologic Setting**

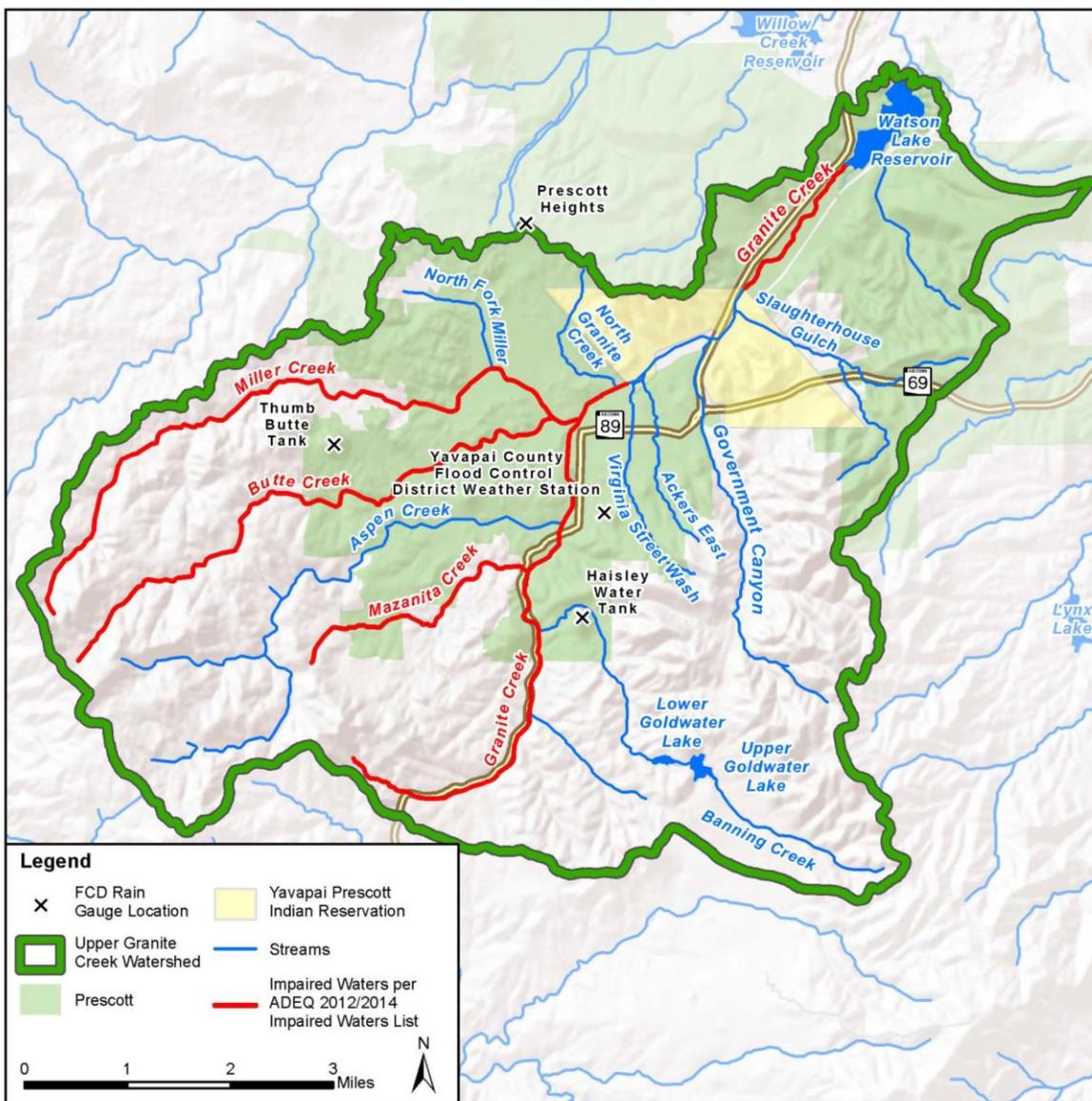
The City of Prescott is located within Yavapai County in central Arizona. The City is bordered to the west and south by the Prescott National Forest and is adjacent to the Yavapai-Prescott Indian Tribe. Due to its local elevation and geographic location, Prescott typically experiences all four seasons annually. Between 1986 and 2015, the City recorded an average of approximately 16 inches of rainfall and 12 inches of snowfall each year (as reported by the National Oceanic & Atmospheric Administration at Station # USC00026796 located at the Sun Dog Waste Water Treatment Plant).

Prescott is located the Upper Granite Creek watershed which is located within the larger Verde Watershed. The Upper Granite Creek watershed is mostly mountainous with high relief to the west feeding more than 12 tributaries which ultimately discharge via Granite Creek into Watson Lake Reservoir to the northeast. Due to the general high relief of the area, the stormwater response time is expected to be very short, resulting in flashy storm responses.

Six waters (Miller Creek, Butte Creek, Manzanita Creek, Granite Creek, Watson Lake Reservoir, and Willow Creek Reservoir) are currently listed on ADEQ’s ‘Impaired and Not Attaining Waters Lists’. In 2016, ADEQ recommended to the EPA for the following waters to also be identified as “Impaired and Not Attaining Waters’: Virginia Street Wash (identified by ADEQ as Ackers West),

Ackers East, Aspen Creek, Banning Creek, Government Canyon, North Fork Miller, and Slaughterhouse Gulch. A determination by the EPA has not yet been released.

See **Figure 1** below and in the Figures Section for the Upper Granite Creek Watershed.



**Figure 1 – Upper Granite Creek Watershed**

### 1.3 Monitoring Locations

The Small MS4 General Permit requires monitoring of discharges to impaired and non-attaining waters. The City will monitor stormwater discharges from two outfalls for each impaired receiving water one time each wet season (see section 1.6). In the case of Manzanita Creek, which only has one regulated outfall, only one outfall will be monitored each wet season. Outfalls to Granite Creek, Miller Creek, Butte Creek, Watson Lake Reservoir, and Willow Creek Reservoir are subject to analytical monitoring and will be selected for sampling on a rotating

basis. The outfalls will be selected based on a number of factors such as: likelihood or history of illicit discharges, land uses within the drainage basin, and other factors at the City’s discretion.

#### 1.4 Monitored Outfalls

In 2015-2016, Amec Foster Wheeler used ArcGIS and Google Earth to confirm 50 known outfalls that discharge directly into the impaired waters within the Upper Granite Creek watershed. Outfalls were evaluated based on their location, type, and local land use. Drainage basin boundaries were then delineated for each of the regulated outfalls to map the contributing areas.

In 2016, the City began an outfall field investigation and verification effort. To date, the City has discovered and mapped an additional 103 outfalls discharging to the impaired waters.

**Table 1** summarizes the total number of outfalls by receiving water that may be selected for analytical monitoring.

**Table 1.  
Outfall Summary Table**

Receiving Water	Total Number of Outfalls
Granite Creek	84
Miller Creek	24
Butte Creek	25
Manzanita Creek	1
Watson Lake Reservoir	13
Willow Creek Reservoir	6
<b>Total Outfalls:</b>	<b>153</b>

#### 1.5 Monitored Constituents

Monitoring outlined within this section is intended to meet a number of needs: 1) compliance with Part 7 of the MS4 General Permit, 2) directly in response to the Upper Granite Creek Watershed TMDL, and 3) monitoring in support of compliance efforts for the Upper Granite Creek Watershed and Watson Lake Reservoir TMDLs. Monitoring can be divided into required and optional parameters as discussed below.

In the course of performing sample collection, field observations are documented to record site conditions and actions taken during sampling. Observations are documented on a Field Data Sheet at the time of sample collection and include: weather, approximate flow rate, presence of debris/floatables, color, clarity, odor, and any other conditions of interest. Field data sheets will also be used to document possible field equipment failure or unsafe site conditions that may occur during sampling. Data recorded in support of these observations may also be used to comply with Part 6.4.3.8.b of the MS4 General Permit which pertains to Visual Outfall Monitoring.



**Photo 2: Example Outfall into Granite Creek**

### 1.5.1 Required Constituents

Compliance with the MS4 Permit and Upper Granite Creek Watershed TMDL require monitoring of constituents based on the receiving water each outfall discharges to. **Table 2** provides the required constituents by receiving water.

**Table 2.  
Required Monitoring Constituents by Receiving Water**

Receiving Water	Required Constituents
Granite Creek	Dissolved Oxygen (DO) <i>E. coli</i>
Miller Creek	<i>E. coli</i>
Manzanita Creek	<i>E. coli</i>
Butte Creek	<i>E. coli</i>
Watson Lake Reservoir	Nitrogen, Low DO, High pH
Willow Creek Reservoir*	Ammonia

### 1.5.2 Optional Constituents/Parameters

In addition to required constituents/parameters, optional constituents/parameters may be analyzed to aid in support of compliance efforts for the Upper Granite Creek Watershed and Watson Lake Reservoir TMDLs as well as source tracking and/or illicit discharge detection and elimination (IDDE) efforts. Optional parameters presented in this Plan include: pH, Temperature, Total Phosphorus, microbial source tracking (MST) Markers, Total Suspended Solids (TSS), and Turbidity.

For locations where *E. coli* is a required monitoring constituent, MST markers may be analyzed to provide additional information regarding the type and prevalence of bacteria sources. MST markers are genetic sequences associated with human or various animal species of fecal pollution. The City may opt to perform these additional analysis to determine what *E.coli* sources are contributing to each receiving water for the purpose of investigating sources and/or designing and implementing BMPs to minimize *E.coli* levels.

### **1.6 Wet Weather Monitoring Requirements**

The City of Prescott discharges to six waters (Miller Creek, Butte Creek, Manzanita Creek, Granite Creek, Watson Lake Reservoir, and Willow Creek Reservoir) all of which are designated as impaired waters. The City will monitor and perform visual assessments from selected outfalls twice each wet season. Analytical monitoring will be performed once per wet season.

Wet seasons are defined as:

Summer wet season: June 1 – October 31

Winter wet season: November 1 – May 31

Due to staff availability and safety concerns wet weather monitoring will only be conducted during regular business hours. Since Prescott is located in an area where freezing conditions exist, required monitoring and sample collection may be distributed during seasons when precipitation runoff, either as melting snow or rain mixed with melting snow occurs.

### **1.7 Storm Selection Criteria**

Stormwater samples are collected during the summer and winter wet seasons. Stormwater monitoring is conducted for storm events that produce a discharge from the storm sewer system as defined in the MS4 General Permit. Storms of 0.1 inches of rainfall or greater generally result in a measurable discharge from monitoring locations, and should be sampled. During wet seasons, sampling personnel will prepare to perform monitoring when storms are forecasted at a 20% or higher probability of occurring. Discrete sampling for each monitoring location is conducted as soon as possible in order to attempt to capture the first flush from each storm event.

### **1.8 Weather Tracking Requirements**

The weather should be monitored for incoming storms on at least a daily basis using reliable sources such as [www.weather.gov](http://www.weather.gov), or [www.noaa.gov](http://www.noaa.gov). Smartphone applications can also be utilized to check hourly weather forecasts, view real time radar reports, and receive alerts when user-entered criteria is satisfied. During the permitted wet seasons, predicted storms of a 20%

chance or greater should be closely monitored prior to arrival in order to gauge the appropriate time for sample collection. The use of available satellite or radar imaging should be used for even more accurate storm arrival estimates.

The Yavapai County Flood Control District (FCD) has five rain gauges in and around the Prescott area that may be used to monitor rainfall. Gauges nearest to monitoring points include:

1. Haisley Water Tank
2. Prescott Heights
3. Yavapai County Public Works Yard
4. Thumb Butte Tank
5. Yavapai County Flood Control District Weather Station



***Photo 3: Confluence of Miller Creek (background) and Butte Creek (foreground)***

The gauges can be monitored at <http://weather.ycflood.com/rain>. Locations of the rain gauges can be found in **Figure 2**.

The City records measurable storm events occurring at each monitoring location until all required samples are obtained for the given season. Storm event records are submitted with the annual report and include:

- Date of each storm event;
- Amount of rainfall in the drainage area for each stormwater monitoring location; and
- Indication whether or not a stormwater sample was collected. If a sample was not collected, an explanation on the conditions that prevented or did not require sampling.

## **2.0 WATER SAMPLING METHODOLOGY**

Sampling will be conducted in accordance with the NPDES Storm Water Sampling Guidance Document. Additional reference sources include: Standard Operating Procedures for Surface Water Quality Sampling (ADEQ, 2015a) and the Surface Water Section Quality Assurance Program Plan (ADEQ, 2015b).

Sampling methodology for monitored constituents is generally described herein.

## 2.1 Sample Collection

Performing outfall sampling can be performed by a variety of methods. Methods can be categorized as Manual, Passive, or Automatic. Each of the three methods have benefits and limitations and are summarized in **Table 3**.

Due to the number of outfalls requiring monitoring, limited City staff and resource availability, and short hold time for *E.coli* a combination of manual and passive samplers is likely the preferred option for sample collection.

To complete the required sample collection and/or sample retrieval, the City may opt to use City personnel, third party contractors and/or consultants, or work with local watershed stakeholders. All personnel who assist in sampling performed under this Plan will be trained as outlined in Section 8.0.

Sample collection will be performed as individual discrete grab sample representing stormwater characteristics at a given point in time. Composite samples are not required for the given parameters presented in Section 2.3.

**Table 3.  
Sample Collection Methods**

Sampling Technique	Benefits	Limitations
<p><b>Manual: Samples are simply collected by hand.</b></p> 	<ul style="list-style-type: none"> <li>• Single use containers require little set up or cleaning</li> <li>• Appropriate for all pollutants</li> </ul>	<ul style="list-style-type: none"> <li>• Labor intensive</li> <li>• Challenging to collect sample within first 30 minutes of flow</li> <li>• May allow human error in sample collection</li> <li>• Risk of cross-contamination if collection jars are re-used and not thoroughly cleaned between events.</li> </ul>
<p><b>Passive: Sample collection containers that self-close when full.</b></p> 	<ul style="list-style-type: none"> <li>• Can be installed ahead of time in multiple configurations</li> <li>• Can be mounted at a height for a qualifying rain event.</li> <li>• Automatically collects first 30 minutes of flow</li> <li>• Minimal equipment setup</li> <li>• Reduces risks to sampling personnel</li> </ul>	<ul style="list-style-type: none"> <li>• Must be retrieved immediately due to short hold time for <i>E.coli</i>. Given installation configuration, sample retrieval may not be possible during large storm events.</li> <li>• May require many bottles to collect sufficient sample volume</li> <li>• Risk of cross-contamination if bottles are re-used and not thoroughly cleaned between events</li> <li>• Can be contaminated by illicit discharges preceding storm events</li> <li>• Unknown time of sample collection</li> </ul>

Sampling Technique	Benefits	Limitations
<p><b>Automatic: Powered devices that collect samples according to pre-programmed criteria.</b></p> 	<ul style="list-style-type: none"> <li>• Can be installed and programmed to collect a sample within the first 30 minutes of flow</li> <li>• Can be fitted with rain gauges</li> <li>• Triggered remotely or automatically with flow</li> <li>• Portable models also available</li> </ul>	<ul style="list-style-type: none"> <li>• Requires system installation, regular maintenance, and programming</li> <li>• Requires an external power source</li> <li>• Risk of cross-contamination if tubing and bottles are not thoroughly cleaned between events</li> <li>• Must be retrieved immediately due to short hold time for <i>E.coli</i>.</li> <li>• Not appropriate for analysis of pH and Temperature.</li> <li>• Costly for numerous or rotating sampling sites</li> </ul>

## 2.2 Field Water Quality Parameters

Field water quality parameters include dissolved oxygen (DO), pH, temperature, ammonia, and turbidity. Measurements will be conducted *in-situ* by placing the monitoring probe(s) directly in the water column. Probes should be exposed to flow discharging from the outfall. A secondary container may be used if the water depth does not allow the probe to be completely submerged and/or if placement of the probe in the outfall discharge is not feasible due to safety or access limitations.

Field meters will be calibrated according to the manufacturer’s specifications prior to use. Information regarding field meter calibration and care is also provided in Section 1.4 of Standard Operating Procedures for Surface Water Quality Sampling (ADEQ, 2015a). *In-situ* field measurements will be collected at the same sample time and sample point as the grab sample.

Troubleshooting and corrective actions will be recorded on a calibration log and/or field data sheet. Field measurement values and collection times will be recorded on the Stormwater Monitoring Form (see **Attachment B**). For additional information regarding collection of field water quality parameters see Section 3.1 of Standard Operating Procedures for Surface Water Quality Sampling (ADEQ, 2015a).

## 2.3 Analytical Monitoring

For stormwater monitoring events, personnel will collect samples from designated outfalls and send/deliver samples to a laboratory for analysis.

The Sampling Manager will coordinate with the selected laboratory to obtain properly preserved collection bottles required for each analysis. Sample bottles will be labeled with an outfall identifier, sample collection time and date, analysis, and sampler initials prior to sample collection (ADEQ, 2015a). Nitrile or latex gloves will be worn during sample handling. Nutrient samples will be collected first, followed by bacteria samples (ADEQ, 2015a). Additional sample tracking and handling requirements are discussed in Section 3.2

Grab samples will be collected during storm events (see Section 1.4) until one sample has been obtained for each wet season. Grab samples will be representative (well mixed) at each selected monitoring location. Sampling will occur in a manner that avoids collection of surface scum and sediment from the bottom of the outfall. If using the manual sampling method, the sample container will be attached to a grab pole and filled as specified for the monitored constituents. Sampling personnel will also utilize “clean hands/dirty hands” sampling techniques (ADEQ, 2015a).

### **2.3.1 E. coli**

Bacteria samples will be collected using sterile techniques. A 100-milliliter (mL) sterile bacteria bottle will be secured to a sample pole that will be used to collect the sample directly from the outfall location. Care will be employed to not allow contact with area structures or the bottom sediments. The container will be opened only for the time needed to collect the sample and will then be closed immediately following sample collection. If it is suspected that the container was compromised at any time, the sample container will be discarded, and a new sample will be collected with a new sample bottle. The sample bottle must be filled only to the 100-mL mark on the bottle (not over topped or under filled). Samples must be placed on ice in a cooler immediately after collection and processed within 6 hours of collection. Additional information regarding bacteria sample collection is provided in Section 4 of the Standard Operating Procedures for Surface Water Quality Sampling (ADEQ, 2015a).

### **2.3.2 Nutrients**

Some nutrient parameters, namely Total Nitrogen and Total Phosphorous, require use of preservatives such as sulfuric acid. When collecting samples into bottles containing preservatives, care should be taken to collect samples such that the bottle is not over topped or under filled. If overtopping may occur if sampled directly (for example due to high flow conditions), an unpreserved transfer container may be used to collect water from the outfall and fill the sample bottles. A new transfer container should be used for each sample. Additional information regarding nutrient sample collection is provided in Section 3 of the Standard Operating Procedures for Surface Water Quality Sampling (ADEQ, 2015a). Samples will be placed in a cooler on ice immediately after collection for transport to the laboratory and analyzed within 48 hours (Total Nitrogen) or 28 days (Total Phosphorous).

### 2.3.3 MST Markers

Sample collection for MST markers is generally consistent with bacteria sampling. However, because these analyses target genetic sequences instead of microbes, some sample handling requirements differ. The laboratory will provide appropriate collection bottles that have been cleaned to remove any residual deoxyribonucleic acid (DNA) that may contaminate the sample. MST markers are novel parameters, and recommended handling and storage requirements are still under development. Preliminary methods require placement of samples on ice in a cooler at <math><10^{\circ}\text{C}</math> (<math><46^{\circ}\text{F}</math>) during transport to the laboratory, with analysis to begin within 6 hours of sample collection (USEPA, 2010).

### 2.3.4 TSS

Samples for TSS analysis will be collected into an unpreserved glass or plastic bottle from representative flow. TSS samples will be placed in a cooler on ice immediately after collection for transport to the laboratory and analyzed within 7 days.

### 2.3.5 Turbidity

Turbidity may be measured in the field with a turbidity meter. The LaMotte 2020we (Part Number 1970-EPA) is compliant with USEPA 180.1 standards and is recommended. The sample vial will be rinsed several times with representative sample water then filled, capped, and wiped clean. The sample vial will be placed immediately in the calibrated turbidity meter and measured. The measured value will be recorded on a field data sheet. Note that very turbid waters may require dilution with deionized water prior to measurement to obtain a more accurate value. Additional information regarding turbidity field measurement is provided in Section 3 of the Standard Operating Procedures for Surface Water Quality Sampling (ADEQ, 2015a).

### 2.3.6 Temperature

Temperature will be collected in situ from representative flow. The probe will be fully submerged to provide accurate reading of water temperature. Once temperature value has stabilized, the measured value will be recorded on a field data sheet. Additional information regarding field measurement procedures is provided in Section 3 of the Standard Operating Procedures for Surface Water Quality Sampling (ADEQ, 2015a).



***Photo 4: pH and temperature meter in stormwater sample***

### 2.3.7 Ammonia

Ammonia may be measured in the field with a portable ammonia ion meter. The probe will be fully submerged to provide accurate reading. Once the ammonia value has stabilized, the measured value will be recorded on a field data sheet. Additional information regarding field measurement procedures is provided in Section 3 of the Standard Operating Procedures for Surface Water Quality Sampling (ADEQ, 2015a).

## 3.0 LABORATORY PROCEDURES

### 3.1 Laboratory Selection

Laboratory analysis are typically performed by a laboratory licensed by the Arizona Department of Health Services (ADHS), Office of Laboratory Licensure and Certification. A searchable list of certified labs is available at:

<https://app.azdhs.gov/BFS/LABS/ELBIS/ArizonaCertifiedLabs/LabSearchContentPage.aspx>

The City has a number of options when considering what lab to use to process samples. Restrictions associated with short hold times for *E.coli* and ADHS certification greatly limit the number of labs the City can select. Most analytical laboratories certified to conduct *E.coli* analysis are located in the Phoenix metro area. A brief review of some laboratories available to the City are provided in **Table 4**.

- Bradshaw Mountain Environmental in Prescott Valley (<30 min drive time) is the nearest lab to the City capable of running *E.coli* analysis; however, they are not ADHS certified nor do they accept samples (without any exceptions) afterhours, on Fridays, or weekends.
- NorTest Analytical in Flagstaff (~2 hr drive time without snow) is the second closest lab certified to run *E.coli* analysis. For a cost markup, samples can be received after hours and on the weekends when arranged ahead of time.
- A number of laboratories are available in the Phoenix metro area (~2 hr drive time without traffic) to receive and process samples during regular business hours. Some labs allow for weekend delivery if arranged ahead of time.

**Table 4.  
Subset of Laboratories to Perform Analysis**

Laboratory	Analytical Capabilities	Sample Receiving Hours	Courier Service *	ADHS Cert.
<b>Bradshaw Mountain Environmental Prescott Valley, AZ</b>	<i>E.coli</i>	8:30am to 5pm M-Th	No	No
<b>NorTest Analytical Flagstaff, AZ</b>	<i>E.coli</i> , N, Ph, TSS, SSC, Turbidity	9am to 5pm M-Th 9am to 1pm Fri Can accept samples after hours and weekends for a markup and when arranged ahead of time.	Arrow Express	Yes
<b>Aquatic Consulting Phoenix, AZ</b>	<i>E.coli</i> , N, Ph, TSS, Turbidity	8am to 5pm M-F	Top Speed Express	Yes
<b>Test America Phoenix, AZ</b>	<i>E.coli</i> , N, Ph, MST, TSS, Turbidity	7am to 6pm M-F 8am to 12pm Sat	Top Speed Express and Hot Shot	Yes
	Notes: Analytical key: <i>E.coli</i> , N (Nitrogen), Ph (Phosphorus), MST (MST Markers), TSS (Total Suspended Solids), and Turbidity  * Courier services offer next day delivery only and apply pick up, mileage, and weight charges. Not appropriate for timely transmittal of <i>E.coli</i> samples.			

Given the challenges associated with meeting hold times, delivering samples during receiving hours, collecting samples from multiple outfalls in a short period of time, and driving safely between sample collection points and the laboratory; the City may want to further explore other options for sample analysis.

Some options include:

1. Pursuing certification of a City water or wastewater treatment facility to perform *E.coli* analysis.
2. Working with stakeholders to provide personnel and resources to supplement City resources
3. Using a non-ADHS certified labs so long as approved test procedures outlined in 40 CFR 136 are followed.

### 3.2 Analytical Methods

Regardless of the laboratory selected, each lab will perform the analyses indicated on the COC. It is important for the laboratory to perform their analysis to a sufficient degree. The Reporting Limit is the smallest concentration of a given constituent that can be reported by a laboratory.

Analytical methods and recommended reporting limits for monitored constituents are provided in **Table 5**.

If field water quality parameters are collected, they will be measured using properly calibrated field meters.

**Table 5.**  
**Monitoring Constituent Methods and Reporting Limits**

Constituent	Method	Target Reporting Limit
<i>E. coli</i>	SM 9221F (Colilert)	1.8 CFU/100mL
<b>Total Nitrogen</b>	EPA 300.0 (Nitrate as N) EPA 300.0 (Nitrite as N) EPA 351.2 (TKN)	0.10 mg/L
<b>Total Phosphorus</b>	EPA 365.1 (as PO <sub>4</sub> ) EPA 365.3 (as P) EPA 200.7	0.10 mg/L
<b>MST Markers Human-associated</b>	HF183 by ddPCR HumM2 by ddPCR BacHum by ddPCR	Varies
<b>MST Markers Animal-associated</b>	CowM2 by ddPCR DogBact by ddPCR	Varies.
<b>TSS</b>	SM 2540D	10.0 mL/L
<b>Turbidity</b>	Field *	0.2 NTU
*Field measurement using meter compliant with EPA 180.1 standards. ddPCR = digital droplet polymerase chain reaction		

### 3.3 Sample Handling and Tracking

#### 3.3.1 Sample Tracking

Grab samples will be marked with a unique outfall which will be used to track the sample throughout its analyses. The unique IDs are also entered directly on to field and laboratory data sheets. Any observations recorded in the field, as well as, information recorded in processing all field samples in the laboratory will be transcribed to Microsoft Excel spreadsheets. Hard copies of these field and laboratory data sheets will be maintained by the City with the City's Stormwater Management Plan (SWMP).

#### 3.3.2 Sample Handling and Custody

When collecting samples, the following sample handling protocols will be followed to minimize the possibility of contamination.

- Field personnel need to be thoroughly trained in the proper use of sample collection gear. See Section 8.2 for additional training details.

- Unused (new), clean, powder-free nitrile gloves will be worn while collecting samples and will be replaced with new, clean gloves between samples and/or sites.
- Previously unused (new) sample bottles of the recommended type will be employed. Sample bottles and bottle caps will be protected from contact with solvents, dust, or other contaminants during storage and bottle handling.
- Field personnel will make an effort, within reason, to prevent large gravel and uncharacteristic floating debris from entering the sample containers. Personnel will also make an effort to not disturb sediments that may be at the bottom of the channel.
- The inside of the sampling container and lids will not be touched during preparation and sampling activities.
- Vehicle engines will be turned off during sampling activities to minimize exposure of samples to exhaust fumes.
- New bags of previously unopened ice will be used to cool samples following sample collection.
- Bacteria samples will be collected directly into a sterilized polyethylene or polypropylene container to the maximum extent practicable.
- MST marker samples will be collected directly into decontaminated (DNA free) containers to the maximum extent practicable.

Once sample containers are filled, they will be promptly placed on ice, in a clean cooler and transported to the laboratory for processing to meet holding times. Chains of custody will accompany the collected water samples. Sampled water will be kept below 6°C (43°F) and transferred to an analytical laboratory within holding times. Chain-of-Custody (COC) forms for the samples will be completed and transported to the analytical laboratory with the samples. The analytical laboratory will ensure that all samples are handled and analyzed within the proper holding time. Sample holding times are listed in **Table 6**. Custody of all samples will be transferred from the field personnel to laboratories.

**Table 6.  
Typical Sample Handling and Custody**

<b>Analysis</b>	<b>Container</b>	<b>Minimum Sample Volumes</b>	<b>Holding Time</b>
<i>E. coli</i>	Factory-sealed, pre-sterilized, HDPE container <sup>(b)</sup>	125mL	6 hours
<b>Total Nitrogen</b>	Plastic 500 mL – Preserved with H <sub>2</sub> SO <sub>4</sub>	100 mL	48 hours
<b>Total Phosphorus</b>	Plastic 500 mL – Preserved with H <sub>2</sub> SO <sub>4</sub>	100 mL	28 Days
<b>MST Markers</b>	Decontaminated (DNA free) plastic (high density polyethylene or polypropylene) container	1 Gallon	6 hours to filter and freeze at -8°C (46°F)
<b>TSS</b>	1 Liter HDPE	1 Liter	7 days
<b>Turbidity</b>	125 mL HDPE	100 mL	48 hours
°C degree Celsius			
<sup>(b)</sup> Sodium thiosulfate may be used if chlorine is suspected in the water. Sodium thiosulfate is used for chlorine elimination.			

### 3.4 Data Package Deliverables

Laboratories will be required to provide a three-week turnaround on the deliverable package per event. The deliverable package will include electronic data reports of all samples analyzed. The files will then need to be reviewed to identify any analytical problems, QA/QC exceedances, and provide corrective actions, if necessary.

### 3.5 Decontamination Between Sampling Events

Before and between stormwater samples, sampling personnel will ensure sample containers are clean and prepared for field use, per 40 CFR Part 136.

Between sampling events, containers used for sample collection should be cleaned using distilled/deionized water and air dried. After cleaning containers, each container should be capped or sealed to ensure it's protected and kept clean.

## 4.0 PREPARATION AND LOGISTICS

### 4.1 Mobilization and Staffing

Monitoring both the flow characteristics and water quality of stormwater requires considerable planning prior to any actual rainfall. Obtaining representative samples and complete storm data is only possible with well-trained and alert field teams. The uncertainty of weather forecasts coupled with abrupt changes in the weather can greatly alter the expected workload. This can lead to inefficiency, fatigue, and frustration of all personnel involved. It is therefore critical to plan

and prepare all possible aspects of the field effort well in advance. Developing a Staffing Plan, to designate personnel and equipment is recommended when a potential rain event is forecast.

The Staffing Plan should identify:

- Outfalls that will be monitored
- Personnel assigned to each outfall
- Vehicles and equipment required for monitoring
- Organizing and prepared sample containers from the laboratory
- Establishing communication channels and check-in procedures
- Selection and notification of selected laboratory to receive samples

## 4.2 Personnel

Storm monitoring tasks require a variety of skills and positions. The required personnel include:

- Program Manager
- Sampling Manager
- Field Coordinators

***Program Manager*** – During storm events, the Program Manager is to monitor the conditions at the selected monitoring locations. The Program Manager must be able to obtain and interpret the most recent weather forecasts as well as to make informed decisions regarding the storm status. It is also the responsibility of the Program Manager to notify all personnel of shift start-and end-time changes. The Program Manager will also be responsible for ensuring the field personnel are trained in sampling protocols and procedures in accordance with this Monitoring Plan.

The Program Manager requires excellent decision-making and dispatch skills as well as a thorough understanding of the Project requirements. This role may also be filled by the Sampling Manager.

***Sampling Manager*** – The Sampling Manager is a technically-skilled, experienced field supervisor and is the most experienced member of the field team. This position requires a thorough understanding of project requirements, sampling procedures, and equipment operations. The Sampling Manager will communicate frequently with the Program Manager to determine task priorities. The Sampling Manager will also monitor the ability of field teams to safely and effectively complete their shifts and notify the Program Manager of the need for relief teams. The Sampling Manager must be able to troubleshoot most of the common problems that could be experienced by any of the field teams. The Sampling Manager will also provide on-site weather observations for the Program Manager.

***Field Coordinators*** – The Field Coordinators are field personnel trained in the operations and the procedures of stormwater monitoring. The Field Coordinators are responsible for directing the procedures at each site visit and ensuring that data is recorded properly. The Field

Coordinators will communicate with the Program Manager and/or the Sampling Manager to aid in the determination of task priorities.

### 4.3 Equipment

Equipment needed for stormwater sampling includes: prepared sample containers from the laboratory, sample collection equipment, field testing equipment, safety equipment, personal rain gear, and vehicles equipped with mobile communication and highway safety equipment. The necessary equipment should be loaded into the appropriate vehicles early in the storm preparation sequence. During the monitoring season, field crews will utilize the safety equipment, personal rain gear, and other site maintenance equipment listed below.

- Maps for selected outfalls
- Prepared sample jars
- Sampling equipment (telescopic dipper, glass and/or plastic collection jars, heavy duty twine/string, and plastic dippers).
- pH and temperature meter
- Pencils and indelible markers
- Spare sample labels
- Sampling forms
- Chain of Custody paperwork
- Field notebook
- Ice chest and ice (or snow if winter)
- Ziploc baggies (assorted sizes)
- Nitrile gloves
- Paper towels
- Waterproof flashlight
- Headlamp
- Tape
- Cable ties (assorted sizes)
- Utility knife
- Trash bags
- Deionized water for rinsing and cleaning equipment
- Mobile phone
- Personal rain gear (jacket, boots, umbrella)
- Digital or disposable camera



***Photo 5: Collecting a stormwater sample using a long handle dipper***

## **5.0 STREET DIRT SAMPLING PROGRAM**

For the purposes of this Plan, street dirt is contaminated particulate material that accumulates on urban streets and moves with stormwater runoff – thus the nexus to water quality and this Plan. The street dirt data collected in Prescott will be used to further calibrate the models associated with the Upper Granite Creek Watershed and Watson Lake Reservoir TMDLs. The street dirt sampling areas selected in support of this program will be representative of the predominate combinations of land use and street characteristics found throughout the City. These land use and street characteristic combinations will eventually be modeled using Simplified Particulate Transport Model (SIMPTM) as part of ongoing TMDL support activities.

### **5.1 Sample Collection**

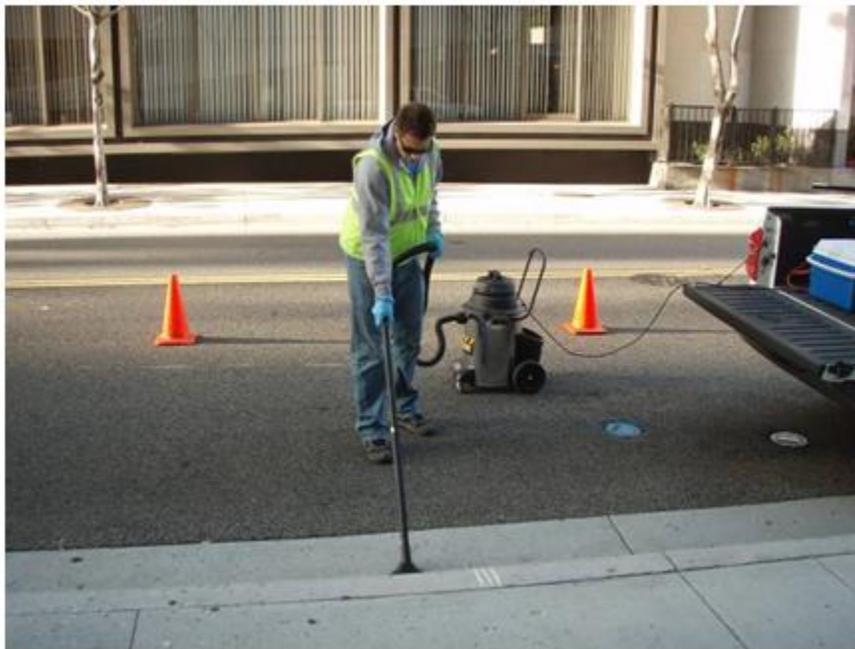
To the extent possible, within approximately one week of collecting a water sample from an outfall, the City will collect a street dirt sample from within the corresponding outfall basin. Samples will be collected according to the procedure described in Section 5.2. Further development of this Street Dirt program will be developed under ongoing TMDL support activities; however, general considerations when selecting the locations for sampling locations include:

- Areas within the basin to be sampled should be representative of the predominate land uses found within each basin.
- Streets in predominantly undeveloped or vacant areas will be avoided.
- Samples will be collected from dry streets.
- Streets sampled will be free of obstructions (such as parked vehicles) and damage (unrepaired cracks).
- Each location sampled will be carefully documented as described in Section 5.2.

### **5.2 Sampling Procedure**

Street dirt particulates and their associated contaminants should be sampled using a procedure developed previously for urban water quality studies in San Jose, California and Reno/Sparks, Nevada (Pitt, 1979; Pitt and Sutherland, 1982). Sampling should be performed during dry pavement conditions using a heavy duty industrial vacuum with a stainless steel canister and a long 1.5 to 2 inch inside diameter hose, wand, and gulper.

A given “sample,” as considered for analysis purposes, is actually a composite of a number of subsamples taken randomly at various points along a street or series of streets within a given sampling area. Each subsample is collected in a narrow strip about 12 to 16 inches wide (width of the gulper attachment) from the center of the street (for most low traffic land uses) to the curb. This technique of collecting half-street widths minimizes traffic obstructions and increases the safety of the operator, as another assistant can then monitor traffic conditions during the collection process. For higher traffic volume streets, the subsamples are usually collected from



**Photo 6: Collecting street dirt sample**

the curb out to the end of the parking lane. For major arterials without parking only the first three feet from the curb are usually sampled.

Locations of the subsample strips are selected to ensure that they have no unusual loading conditions. For example, a subsample or a series of subsamples would not be collected through the middle of a large pile of dirt, but rather at a location where the dirt is lying on the street in a

more typical distribution pattern. When sampling, the leading edge of the vacuum intake gulper should be elevated approximately 1/8-inch above the paved surface to permit pebbles and larger particles to enter. It is lifted further to accept larger material as necessary.

An important aspect of the sample collection is the speed at which the gulper is moved across the street. A very rapid movement significantly decreases the amount of material collected. Too slow a movement requires more time than was necessary. The correct movement rate depends on the roughness of the street and the amount of material on it. When sampling a street that has a heavy loading of particulates or a rough surface, the gulper should travel at a velocity of less than one half foot per second. In areas of lower loadings and smoother streets, the gulper could travel at a velocity of one to two feet per second. The best indication of the correct collection speed is made by a visual determination of how well the street is being cleaned in the sampling strip and by listening to the collected particulates rattling up the wand and through the vacuum hose. The objective is to remove everything that is lying on the street that could be removed by a significant rainstorm. It is quite common to leave a visually cleaner strip on the street where the subsample is collected, even on streets that appear to be clean.

When moving from one subsample location to another, the hose, wand, and gulper are securely placed in the truck, trailer or van used to transport the equipment. The hose is placed so as not to touch the generator’s muffler, which could burn a hole in it. The generator and the vacuum

should be left on and in the truck bed or trailer during the entire subsample collection process. Several hundred grams of sample material is usually needed for the laboratory tests. So operator experience in relating the relative sound of material traveling up the wand and hose to the eventual amount of sample collected will dictate the appropriate number of subsamples to obtain. Depending on the relative loading as many as a hundred subsamples will need to be collected for a single representative accumulation sample of a minimum of 400 grams. However it is a common practice to randomly sample curbed areas that are in 10 foot lengths which reduces the amount of time it would take to collect 100 subsamples. The key is to carefully keep track of the number of subsamples obtained and then take that into consideration when transferring the sample and weighing and adjust the number of subsamples accordingly (i.e. more if you need more material or less if you need less material).

A log of information which may later be necessary to resolve inconsistencies regarding Outfall ID, sample area name and number, sample area land use, sample date and weights are recorded in the field when the sample is collected. As each sample is collected, the corresponding number of the subsamples or wand pulls actually obtained (i.e. widths of the gulper across the sampling surface) is inputted into a sampling log. An example sampling log is provided in **Attachment C**. Dry pavements conditions are required for sampling but some dampness can be encountered. Obviously any areas with ponded or running water must be avoided.

A list of the equipment needed to conduct street dirt sampling is provided in **Attachment D** as well.

### **5.3 Sample Transfer**

After all the subsamples for a test area are collected, the hose and wand are shaken and cleaned if needed. Leaves and rocks that may have become caught should be carefully removed and placed in the vacuum can. The generator is then turned off. The vacuum is either emptied at the last station or at a more convenient location sheltered from any wind.

To empty the vacuum, the top motor unit is removed and placed out of the way of traffic. The Dacron filter bag is kept in the vacuum can and shaken carefully from the outside to knock off most of the filtered material. The dust inside the can is allowed to settle for a few minutes. Then the filter is carefully removed and brushed onto the sample container with a new paint brush. Any dirt from the top part of the bag where the bag was bent over the top of the vacuum is also carefully brushed into the sample container.

After the filter is removed and cleaned, the vacuum canister is carefully placed and tilted on an elevated surface like the open tailgate of a pickup or the back of a van. The inside of the vacuum canister is carefully brushed out with a soft three inch width paint brush to remove the collected sample. The transfer of the sample to the zip-lock sample container usually involves specially designed bag holder made from a standard metal coat hanger. In order to prevent excessive dust losses, the emptying and brushing is done in areas protected from the wind. To prevent inhaling the potentially toxic sample dust, mouth and nose air filter masks are worn while removing the samples from the vacuum.



**Photo 7: Transferring collected street dirt sample**

The sample storage containers or zip-lock bags are labeled with the date, the test area name and corresponding Outfall ID number. The sample is weighed in grams in the field using a battery operated digital kitchen scale. Finally, the seals of the sample containers or zip-lock bags are taped shut and transported to a safe storage location or directly to the soil laboratory for sieve analyses.

## **5.4 Particulate Analysis Procedures**

### **5.4.1 Sieve Analyses**

In the laboratory, every collected sample will be weighed then dried in an oven kept below 120 F to avoid adverse chemical transformations. After noting moisture content, each sample will be sifted through a series of seven stainless steel sieves with mesh sizes of 63, 125, 250, 600, 1000, 2000, and 6371 microns. Each of the fractions passing each sieve will be separately weighed so the particle size distribution can be recorded. A standard sieve analysis form is provided in **Attachment E**.

### **5.4.2 Chemical Analyses**

Pollutant concentrations can vary substantially with particle size, so the eight fractions obtained above will usually be combined into three general size groups; Fine (less than 63 microns), Medium (63 to 250 microns), and Course (250 to 2000 microns). The larger than 2000 micron fraction is discarded. Depending upon the specific objectives of the study and the budget, various chemical analyses can be conducted on the Fine, Medium, and Course fraction of either a single sample or several samples combined. The actual amount of chemical sampling

conducted is an important aspect of any study design since it can have a significant impact on the study cost.

## **6.0 QUALITY ASSURANCE /QUALITY CONTROLS**

This section addresses quality assurance/quality controls (QA/QC) activities associated with both field sampling and laboratory analyses. Field quality control (QC) samples are used to evaluate potential contamination and sampling error introduced prior to submittal of samples to the analytical laboratory. Laboratory QA/QC activities provide information needed to assess laboratory contamination, analytical precision, and analytical accuracy. If any QA/QC standards are not met, the appropriate corrective actions will be taken in accordance with the laboratories' QA Manuals. The City's Program Manager is responsible for making decisions on corrective actions pertaining to laboratory analysis. If issues are identified, the laboratory Project Manager or City Program Manager will be notified immediately and documentation of the issue and the corrective action will be made.

### **6.1 Field Quality Control**

Field blanks are analyzed to determine if any field collection processes have caused sample contamination, and if so, to what extent. Appropriate blank water is provided by the analytical laboratory and placed in a clean sample container during field sampling. Field blanks are treated as regular samples in all respects, including contact with the sampling divided and exposure to sampling conditions, storage, preservation, and filtration, if applicable (ADEQ, 2015b). In general, blank contamination above the method reporting limit should be rejected except for parameters normally detected in blank water. Chapter 3 of the Surface Water QAPP provides additional information (ADEQ, 2015b).

Field duplicates are analyzed to determine variability associated with field collection processes. Duplicates are collected from the same site, at the same time, and analyzed in the same manner (ADEQ 2015b). In general, field duplicates should have a relative percent difference (RPD) of 20% or less, if the results are greater than two times the reporting limit.

Chapter 3 of the Surface Water QAPP provides additional information regarding field quality control samples (ADEQ, 2015b). Field quality control frequencies and measurement quality objectives are presented in **Table 7** below.

**Table 7.  
Field Quality Control Requirements**

<b>Field Quality Control Parameter</b>	<b>Constituent</b>	<b>Frequency of Analysis</b>	<b>Measurement Quality Objective</b>
<b>Field Blank</b>	<i>E. coli</i>	1 per trip	< RL
	Nutrients	5%	
	MST Markers	varies	Will be determined upon lab selection.
<b>Field Duplicate</b>	<i>E. coli</i>	1 per trip	≤20% RPD (if result 2x greater than RL)
	Nutrients	5%	
	MST Markers	1 per trip	
<b>Notes:</b> RL – Reporting limit RPD – Relative percent difference			

## 6.2 Laboratory Requirements

Laboratory analytical quality assurance includes the following:

- Employing analytical chemists trained in the procedures to be followed
- Adherence to documented procedures, USEPA approved methods, and written Standard Operating Procedures (SOPs)
- Calibration of analytical instruments
- Complete documentation of sample tracking and analysis

### 6.2.1 Trip Blanks

A trip blank is an analysis of a laboratory prepared analyte-free water sample that has been subjected to the same complete analytical procedure as the field sample to determine if potential contamination has been introduced during processing. Blank analysis results are evaluated by checking against reporting limits for that analyte to determine if any contamination has occurred. Results obtained should be less than the reporting limit for each analyte.

### 6.2.2 Duplicate Samples

A duplicate sample is two separate samples taken in the field at the same site, within close proximity and time of each other. These samples are analyzed in the same manner, but may contain slightly different chemical compositions. Duplicate samples are usually taken when it is not possible to use a churn splitter to homogenize and split one sample. The generally accepted relative percent difference between duplicate samples is 20% or less (ADEQ, 2015b).

### **6.2.3 Laboratory Splits**

A sample is split by the laboratory in two or more portions and analyzed by different analysts or laboratories for the same analytes. The samples are split using a churn splitter in the laboratory to produce homogenous samples. Split samples will ideally produce identical results. The generally accepted relative percent difference between split samples is 20% or less (ADEQ, 2015b).

## **6.3 Measurement Quality Objectives**

### **6.3.1 Accuracy**

Accuracy describes how close the measurement is to its true value. Accuracy is the measurement of a sample of known concentration and comparing the known value against the measured value. The accuracy of chemical measurements will be checked by performing tests on a standard prior to and/or during sample analysis. A standard is a known concentration of a certain solution. Standards can be purchased from chemical or scientific supply companies. Standards might also be prepared by a professional partner, e.g., a commercial or research laboratory. The concentrations of the standards will be unknown to the analyst until after measurements are determined. The concentrations of the standards should also be within the mid-range of the equipment. Recovery measurements are determined by spiking a replicate sample in the laboratory with a known concentration of the analyte.

### **6.3.2 Precision**

Precision describes how well repeated measurements agree. The evaluation of precision described here relates to repeated measurements/samples collected in the field (field duplicates) or the laboratory (laboratory replicates and MS/MSDs). Precision measurements will be determined by comparing results from field duplicates, laboratory replicates, and matrix spike duplicates to the precision Measurement Quality Objectives (MQOs). Relative Percent Differences (RPDs) will be calculated to determine the precision between duplicate samples.

### **6.3.3 Completeness**

Completeness is the fraction of planned data that must be collected to fulfill the statistical criteria of the project. A completeness target of <100% accounts for adverse weather conditions, safety concerns, and equipment problems. The project team will determine completeness by comparing the number of measurements planned to be collected with the number of measurements actually collected that were also deemed valid. An invalid measurement would be one that does not meet the sampling method requirements and MQOs. Completeness will be measured as a percentage of the number of samples collected that meet the respective MQOs compared to the anticipated total number of samples.

## **7.0 DATA MANAGEMENT**

### **7.1 Data Verification and Validation**

Data verification is the process of evaluating the completeness, correctness, and conformance of the dataset against the method, procedural, or contractual requirements. The goal of data validation is to evaluate whether the data quality goals established during the planning phase have been achieved. Data quality indicators will be continuously monitored by the analyst producing the data (i.e., field and lab personnel), as well as the selected laboratory's project manager or the City Sampling Manager throughout the project to ensure that corrective actions are taken in a timely manner. Data validation is an analyte-specific and sample-specific process that extends verification to determine the analytical quality of the dataset. Laboratory personnel responsible for conducting QC analysis will be responsible for documenting when data do not meet measurement quality objectives as determined by data quality indicators.

#### **7.1.1 Data Verification and Validation Responsibilities**

Data collected in the field will be verified by the City's Sampling Manager.

Verification and validation of laboratory data is the responsibility of the Laboratory Supervisor and City Program Manager. Laboratories will maintain analytical reports including QC documentation and COC forms. The Laboratory QA Officer will perform checks of all of its records.

The Laboratory QA Officer and City Program Manager are responsible for oversight of field data and laboratory data obtained from the contracted laboratory and sampling agency. All data records will be checked visually and recorded as checked by initials and dates.

Reconciliation and correction of any data that fails to meet the Data Quality Objectives (DQOs) will be done by the City Program Manager in consultation with the Laboratory QA Officer. Any corrections require a unanimous agreement that the correction is appropriate.

#### **7.1.2 Process for Data Verification and Validation**

Data verification and validation for sample collection and handling activities will consist of the following tasks:

- Verification that the sampling activities, sample locations, number of samples collected, and type of analysis performed is in accordance with requirements outlined in the Plan.
- Documentation of any field changes or discrepancies.
- Verification that the field activities and field data (including sample location, sample type, sample date and time, name of field personnel, etc.) were properly documented.
- Verification of proper completion of sample labels and COC forms, and secure storage of samples.
- Verification that all samples recorded on COC forms were received by the laboratory.

Data verification and validation for the sample analysis activities will include all of the following:

- Verification that appropriate methodology has been followed.
- Verification that instrument calibrations have been adequately conducted.
- Verification that QC samples meet performance criteria.
- Verification that analytical results are complete.
- Verification that documentation is complete.

Verification and validation of data entry includes:

- Sorting data to identify missing or mistyped (too large or too small) values.
- Double-checking all typed values.
- Verification that correct data types correspond to database fields (i.e., text for text, integers for integers, number for numbers, dates for dates, times for times, etc.).

## **7.2 Data Tracking**

Data received from the analytical laboratory will be via electronic copy. The data will need to be input into a database in order to compare findings against previous sampling results as well as to track sampling progress. Long term results can be used to determine the effectiveness of implemented best management practices and control measures.

Due to the large quantity of outfalls that require wet weather monitoring a detailed tracking spreadsheet or database will need to be updated and tracked throughout the year.

## 8.0 PERSONNEL TRAINING

### 8.1 Health and Safety Plan

Sample sites will be selected with several criteria in mind; site access and egress, protection from flooding, and the minimization of dangers, such as traffic, enclosed space, and height restrictions. Site access points may be in areas of high traffic. Precautionary measures, such as using traffic cones, a flashing amber light, and/or wearing a reflective safety vest, will be implemented.

If the need for sampling occurs during nighttime hours exercise extreme caution. If a site is deemed too hazardous to sample at night, reevaluate the location in the morning prior to collecting any samples. For additional nighttime sampling guidelines see Section 2.3.4 of the Standard Operating Procedures for Surface Water Quality Sampling (ADEQ, 2015a).

Most common safety considerations when performing stormwater sampling include:

- **Do not attempt sampling if conditions are unsafe or have the potential to quickly become unsafe.**
- Look for exit routes in the event sampling becomes unsafe.
- Identify and plan a route to the nearest medical treatment center in case of an emergency.
- Be aware of, and do not enter, spaces that may be considered as confined spaces.
- Watch for biological hazards – snakes, insects, javelina, coyotes, etc.
- Use caution when walking and driving near flowing water – uneven surfaces, slip/trip/fall hazards, unstable stream banks, etc.
- Minimize or prevent contact of stormwater with exposed skin due to potential for hazardous substances or human pathogens.
- Perform work with a partner or establish phone-check-in procedures between the Sampling Manager and Field Coordinator(s).
- Use caution when entering and exiting live traffic lanes and when entering and exiting vehicles.
- Use the right tool for the job (such as long handled dipper and manhole pullers) to avoid unnecessary risk and injury.



**Photo 8: Be aware of hazards when sampling**

- Use proper heavy-lifting techniques when lifting heavy objects (such as full ice chests and manhole covers).

## 8.2 Training Documentation

Sampling Manager and Field Coordinator(s) will be properly trained in the use of the sampling equipment and clean sample handling techniques along with all appropriate health and safety protocols (see Section 8.1). Specifically, the following elements will be included in the training of all field personnel:

- Health and Safety Plan
- Field equipment training
- Stormwater hazards/awareness
- Sampling techniques

Each Field Coordinator will review the Health and Safety Plan and consult with Sampling Manager if they have any question before mobilization. Initial training and annual refresher training is required for all Field Coordinators. The Program Manager will be responsible for ensuring the field personnel are trained in sampling protocols and procedures in accordance with this Monitoring Plan. The Program Manager will also communicate any updates or revisions of these protocols in a timely manner. At the end of the field training, all participants must demonstrate proficiency in all the required sampling activities. Training records will be retained within the SWMP.

## 9.0 REFERENCES

Arizona Department of Environmental Quality (ADEQ), 2015a. *Standard Operating Procedures for Surface Water Quality Sampling*. Prepared by the ADEQ Surface Water Section. March.

ADEQ, 2015b. *Surface Water Section Quality Assurance Program Plan*. Prepared by the ADEQ Surface Water Section. March.

United States Environmental Protection Agency (USEPA), 2010. *Method B: Bacteroidales in Water by Taqman® Quantitative Polymerase Chain Reaction (qPCR) Assay*. June.

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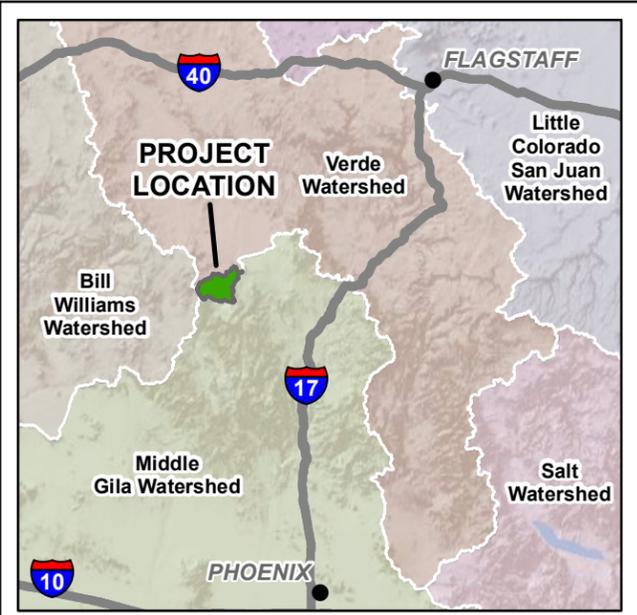
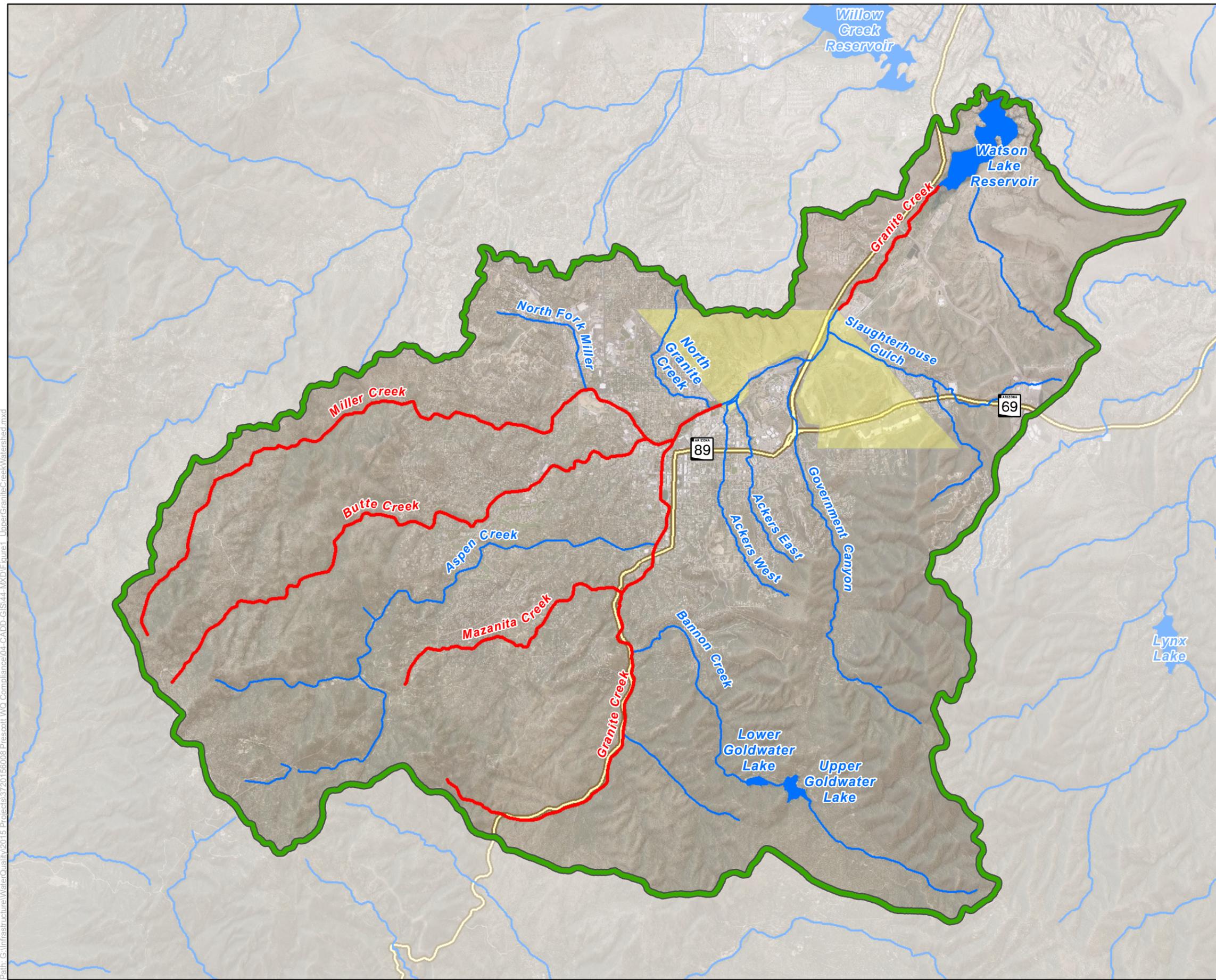
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Pitt, R.E. and R.C. Sutherland, 1982. *Washoe County Urban Stormwater Management Program - Volume II Street Particulate Data Collection and Analysis*, Prepared by CH2M Hill for Washoe Council of Governments, Reno, Nevada.

Sartor, J.D. and G.B. Boyd, 1972. *Water Pollution Aspects of Street Surface Contaminants*, EPA-R2-72-081.

## FIGURES

Path: G:\Infrastructure\WaterQuality\2015 Projects\3720156008 Prescott\WQ Compliance\04-CADD-GIS\44-UXD\Figure1\_UpperGraniteCreekWatershed.mxd



**Legend**

-  Upper Granite Creek Watershed
-  Streams
-  Impaired Waters
-  Yavapai Prescott Indian Reservation

Sources:  
 USGS StreamStats, 2016, <http://water.usgs.gov/osw/streamstats/>  
 ADEQ eMaps, 2016, <http://gisweb.azdeq.gov/arcgis/emaps/>

<b>Prescott Water Quality Compliance City of Prescott, Arizona</b>	
<b>Basin and Watershed Map</b>	
	
<b>FIGURE 1</b>	Job No.: 37-2015-6008 PM: RS Date: 8/29/2016 Scale: 1:60,000
The map shown here has been created with all due and reasonable care and is strictly for use with Amec Foster Wheeler Project Number 37-2015-6008. This map has not been certified by a licensed land surveyor, and any third party use of this map comes without warranties of any kind. Amec Foster Wheeler assumes no liability, direct or indirect, whatsoever for any such third party or unintended use.	
	





**ATTACHMENT A**  
**ACRONYMS AND DEFINITIONS**

## ACRONYMS

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

ADEQ	Arizona Department of Environmental Quality
AZPDES	Arizona Pollutant Discharge Elimination System
BMPs	Best Management Practices
COC	Change Of Custody
CWA	Clean Water Act
DEM	Digital Elevation Model
DNA	Deoxyribonucleic Acid
DO	Dissolved Oxygen
DQO	Data Quality Objective
<i>E. Coli</i>	<i>Escherichia Coli</i>
EPA	Environmental Protection Agency, Region V
FCD	Flood Control District
FEMA	Federal Emergency Management Agency
HAB	Harmful Algae Bloom
MEP	maximum extent practicable
MQO	Measurement Quality Objective
MS4	Municipal Separate Storm Sewer System
MST	Microbial Source Tracker
NPDES	National Pollutant Discharge Elimination System
QA	Quality Assurance
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference
SSC	Suspended Sediment Concentration
TBD	To Be Determined
TMDL	Total Maximum Daily Load
TSS	Total Suspended Solids

## DEFINITIONS

The following is a list of definitions that are used in this document.

*ADEQ* - Arizona Department of Environmental Quality

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

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

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

*Hazardous Waste* – Waste materials that can pose a substantial or potential hazard to human health or the environment when improperly managed. Possesses at least one of four characteristics (ignitability, corrosivity, reactivity, or toxicity), or appears on special EPA lists.

*Impervious Surface* - A constructed hard surface that either prevents or retards the entry of water into the soil and causes stormwater to run off the surface.

*MEP* (maximum extent practicable) - the technology-based discharge standard for municipal separate storm sewer systems to reduce pollutants in stormwater discharges. A discussion of MEP as it applies to small MS4s is found at 40 CFR 122.34. CWA section 402(p)(3)(B)(iii) requires that a municipal permit shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system design, and engineering methods, and other provisions that the state determines appropriate for the control of such pollutants.

*Measurable goal* - a quantitative measure of progress in implementing a component of a stormwater management program.

*Municipal Separate Storm Sewer System* - *Municipal separate storm sewer means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, and storm drains):*

1. *Owned or operated by a state, city, town, county, 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 waters of the United States;*
2. *Designed or used for collecting or conveying stormwater;*
3. *That is not a combined sewer; and*
4. *That is not part of a publicly owned treatment works.*

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

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

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

*Oil-Water Separator* - A device installed, usually at the entrance to a drain, which separates and collects oil and grease from the water.

*Outfall* - means a point source as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to waters of the United States 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 waters of the United States and are used to convey waters of the United States,

*Pervious Surface* – Allows water to infiltrate to the subsurface.

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

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

*Small Municipal Separate Storm Sewer System* - all separate storm sewers that are:

1. Owned or operated by the United States, 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 an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;
2. Not defined as large or medium municipal separate storm sewer systems;
3. This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

*Stormwater* - stormwater runoff, snow melt runoff, and surface runoff and drainage

*Waters of the United States* which is interchangeable with the term “navigable waters”

1. All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters, including interstate wetlands;
3. All other waters such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or

natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

- a. Which are or could be used by interstate or foreign travelers for recreational or other purposes;
  - b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
  - c. Which are used or could be used for industrial purposes by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States under this definition;
  5. Tributaries of waters identified in paragraphs (1) through (4) of this definition;
  6. The territorial sea; and
  7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs 1. through 6. of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds for steam electric generation stations per 40 CFR 423, which also meet the criteria of this definition) are not waters of the United States. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.



**ATTACHMENT B**  
**STORM WATER MONITORING FORM**

# STORMWATER MONITORING FIELD DATA FORM

*This form is to be completed for twice per documented wet season, one for each stormwater discharge-monitoring event. If no discharge occurred for the wet season, indicate no discharge monitoring event in the appropriate box on this form.*

<b><u>General Information</u></b>	
Outfall ID: _____	
Date: _____	Time: _____
Person performing sampling: _____	Signature of person performing sampling: _____
Weather Conditions: <input type="checkbox"/> Clear <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Overcast <input type="checkbox"/> Raining <input type="checkbox"/> Snowing <input type="checkbox"/> Freezing	Approximate Flow Rate: _____
Estimated time of first runoff discharge: _____	Amount of precipitation: (inches): _____ <input type="checkbox"/> Rain <input type="checkbox"/> Snow Melt
<b><u>Runoff Characteristics</u></b>	
Odor: <input type="checkbox"/> None <input type="checkbox"/> Musty <input type="checkbox"/> Rotten Eggs <input type="checkbox"/> Chemical <input type="checkbox"/> Other: _____	
Color: <input type="checkbox"/> None* <input type="checkbox"/> Yellow <input type="checkbox"/> Brown/Black <input type="checkbox"/> White <input type="checkbox"/> Other: _____	
Clarity: <input type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Opaque	
Floatables: <input type="checkbox"/> None <input type="checkbox"/> Trash <input type="checkbox"/> Suds/Foam <input type="checkbox"/> Sheen <input type="checkbox"/> Other: _____	
Deposits: <input type="checkbox"/> None <input type="checkbox"/> Sediment <input type="checkbox"/> Vegetation <input type="checkbox"/> Stains <input type="checkbox"/> Other: _____	
Vegetation: <input type="checkbox"/> None <input type="checkbox"/> Normal <input type="checkbox"/> Distressed <input type="checkbox"/> Excessive <input type="checkbox"/> Other: _____	
Water Flow: <input type="checkbox"/> Flowing <input type="checkbox"/> Ponded <input type="checkbox"/> Moist/Damp <input type="checkbox"/> Dry	
<i>*typical stormwater runoff has a slightly tan tint. This will be assumed to be 'None'.</i>	
<b><u>Field Data</u></b> – record at time of sample collection	
pH (s.u.): _____ DO (mg/L): _____ Temp (*C): _____ Turbidity: _____	
Equipment used (model name and number): _____ Calibrated: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Samples Collected: <input type="checkbox"/> Yes <input type="checkbox"/> No	
If no: <input type="checkbox"/> Unsafe conditions <input type="checkbox"/> Insufficient flow <input type="checkbox"/> Other: _____	
Photos Taken: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Photo #s: _____	
<b><u>If used to satisfy MS4 visual assessment requirements:</u></b>	
<i>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</i>	
Signature: _____	
Name: _____	Date: _____



**ATTACHMENT C**

**STREET DIRT SAMPLING LOG**





## **ATTACHMENT D**

### **STREET DIRT SAMPLING EQUIPMENT LIST**

## **CITY OF PRESCOTT EQUIPMENT LIST FOR STREET DIRT SAMPLING**

### **Required Equipment for Street Dirt Data Sampling**

1. Heavy duty industrial vacuum (100 ft<sup>3</sup>/min or greater air flow) with a stainless steel canister<sup>1</sup> (Shop Vac Model 610 wet/dry vacuum or equivalent). Amec Foster Wheeler can loan to City.
2. Dacron filter cloth (2.5 micron openings) or equivalent (needed to cover the stainless steel vacuum canister and retain small particles within the canister). Amec Foster Wheeler can loan to City.
3. Vacuum accessories including a long (25 foot) hose (1.5 to 2 inch inside diameter minimum) and wand plus several plastic gulpers<sup>2</sup> (12 to 16 inches wide; 3 gulper minimum due to future wear). Amec Foster Wheeler can loan to City.
4. 4000 watt gas powered electric generator (needed to power the vacuum)
5. Approximately 50 feet of heavy duty grounded electrical cord to plug the vacuum into the generator
6. Pick-up truck or trailer to transport the equipment to the sampling locations
7. Several new paint brushes (3 inch wide; used to brush out the sample from the vacuum canister)
8. Traffic cones (plastic, stackable, approximately 10)
9. Gas container for refilling the generator
10. Several respirators for breathing protection when transferring samples.
11. Zip-lock bags (1 gallon size)
12. Fine-point magic marker
13. Stainless steel digital kitchen scale (for accurate Metric/English unit weights up to 10 lbs)
14. Standard metal coat hanger to fabricate a zip lock bag holder needed to securely transfer the collected street dirt from the vacuum canister

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<sup>1</sup> The stainless steel canister should have a volume of approximately 10 gallons.

<sup>2</sup> The vacuum wand should not have any brushes and should be able to maintain pavement suction without brushes and with no holes through the plastic housing.



**ATTACHMENT E**

**SIEVE ANALYSIS FORM**

**CITY OF PRESCOTT  
SIEVE ANALYSIS OF STREET DIRT PARTICULATES**

Sample No: \_\_\_\_\_ Collected By: \_\_\_\_\_

Pilot Study Area: \_\_\_\_\_ Collection Date: \_\_\_\_\_

**Moisture Content:**

Container Number \_\_\_\_\_

Total Sample Wet Wt. + Tare \_\_\_\_\_ grams

Total Sample Dry Wt. + Tare \_\_\_\_\_ grams

Weight of Water \_\_\_\_\_ grams

Tare Weight \_\_\_\_\_ grams

Total Sample Dry Weight \_\_\_\_\_ grams

Moisture Content \_\_\_\_\_ %

**Sieve Analysis:**

Sieve No.	Size Microns	Total Wt. (grams)	Tare Wt. (grams)	Retained Wt. (grams)	% Retained	% Passing
¼	>6370					
10	2000-6370					
18	1000-2000					
30	600-1000					
60	250-600					
120	125-250					
230	63-125					
Pan	<63					
Total Sieved Weight – grams						
Weight Gain (Loss) - %						

**Comments:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



## **ATTACHMENT L**

### **MS4 PERMIT**

PERMIT NO. AZG2016-002

STATE OF ARIZONA  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
PHOENIX, ARIZONA 85007

ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM  
GENERAL PERMIT FOR STORMWATER DISCHARGES  
FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS  
TO WATERS OF THE UNITED STATES

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) and, Title 49, Chapter 2, Article 3.1, the Arizona Administrative Code (A.C.C.), and Title 18, Chapter 9, Article 9.

This general permit specifically authorizes stormwater discharges from small municipal separate storm sewer systems (MS4s) in Arizona to Waters of the United States, pursuant to 40 CFR § 122.34. All discharges authorized by this general permit shall be consistent with the terms and conditions of this general permit.

This general permit becomes effective on September 30, 2016.

This general permit and the authorization to discharge expires at midnight, September 29, 2021.

Signed this 29<sup>th</sup> day of September, 2016.

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

  
Trevor Baggione, Director  
Water Quality Division

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## 1.0 COVERAGE UNDER THIS GENERAL PERMIT

### 1.1 Permit Area

This permit covers and applies to traditional and non-traditional regulated, Small Municipal Separate Storm Sewer Systems (MS4s) in Arizona, except those located in Indian Country:

- a. City or Town – Urbanized area(s) determined by the most recent Decennial Census by the Bureau of Census, including areas annexed during the permit term;
- b. County – Un-incorporated urbanized area determined by the most recent Decennial Census by the Bureau of Census;
- c. State, federal, and other publicly-owned properties that the director determines contributes to a violation of a water quality standard or is a significant contributor of pollutants to Waters of the U.S. and
- d. Areas outside of an urbanized area as designated by the director pursuant to Arizona Administrative Code (A.A.C.) R18-9-A902(D).

### 1.2 Eligibility

This permit authorizes the discharge of stormwater from small municipal separate storm sewer systems (MS4s) provided the permittee complies with all the requirements of this general permit, and the MS4:

- a. Is located fully or partially within an urbanized area as determined by the latest Decennial Census by the Bureau of Census; or
- b. Is designated for permit authorization by the department under the A.A.C. R-18-9-A902(D)(1), R18-9-A902(D)(2), R-18-9-A902(E), and R18-9-A905(A)(1)(f) which incorporates 40 CFR §122.32.

### 1.3 Non-Stormwater Discharges

**1.3.1** Except as provided in Part 1.3.2, the permittee shall prohibit non-stormwater discharges into its MS4 unless the discharges are authorized by a separate NPDES or AZPDES permit.

**1.3.2** The following categories of non-stormwater discharges (occurring within the jurisdiction of the permittee) are prohibited if the discharges are identified by the permittee as significant contributors of pollutants to the MS4. If any of the following categories of discharges are identified as a significant contributor, the permittee must address the category as an illicit discharge as specified in Part 6.4.3.1:

- a. Water line flushing
- b. Landscape irrigation
- c. Diverted stream flows
- d. Rising ground waters
- e. Uncontaminated ground water infiltration
- f. Uncontaminated pumped groundwater
- g. Discharges from potable water sources
- h. Foundation drains
- i. Air conditioning condensate
- j. Irrigation water

- k. Springs
- l. Water from crawl space pumps
- m. Footing drains
- n. Lawn watering
- o. Individual residential car washing
- p. Discharges from riparian habitats and wetlands
- q. Dechlorinated swimming pool discharges
- r. Street wash water, and
- s. Discharges or flows from firefighting activities

#### **1.4 Limitations of Coverage**

Except as provided in Part 1.3.2, this general permit does not authorize:

- 1.4.1** Discharges mixed with sources of non-stormwater unless the non-stormwater discharges comply with an applicable NPDES or AZPDES permit, as addressed in Part 1.3.1;
- 1.4.2** Stormwater discharges associated with industrial activity as defined in 40 CFR §122.26(b)(14)(i)-(ix) and (xi);
- 1.4.3** Stormwater discharges associated with construction activity as defined in 40 CFR §122.26(b)(14)(x) or 40 CFR §122.26(b)(15);
- 1.4.4** Stormwater discharges currently covered under another permit;
- 1.4.5** Discharges to impaired waters listed (including not-attaining waters) if discharge(s) from the MS4 contain, or may contain, pollutant(s) for which the receiving water is listed except:
  - a. If a TMDL has been established and the stormwater management program (SWMP) is consistent with the requirements of the TMDL, including any wasteload allocation or load allocation in the TMDL. The SWMP must also identify Best Management Practices (BMPs) the permittee will use to meet wasteload allocations or load allocations and include monitoring for associated pollutant(s); and
  - b. If a TMDL has not been established and the SWMP includes a section describing how the program will control the discharge of 303(d) listed pollutants and ensure to the maximum extent practicable that discharges from the MS4 will not cause or contribute to exceedances of surface water quality standards. The SWMP must also identify BMPs the permittee will use to control discharges and include monitoring of their effectiveness.
- 1.4.6** Discharges that do not comply with Arizona's anti-degradation rule R18-11-107;
- 1.4.7** Stormwater discharges prohibited under 40 CFR §122.4.

#### **1.5 Permit Compliance**

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

## 2.0 AUTHORIZATION UNDER THIS GENERAL PERMIT

Upon the effective date of this permit, existing and new permittees automatically have coverage under this permit for up to 180 days. Existing and new Small MS4 operators who wish to retain coverage under this permit must submit a complete and accurate Notice of Intent to ADEQ within 180 days of the effective date of this permit.

### 2.1 Obtaining Permit Coverage

**2.1.1** A person seeking authorization to discharge under this general permit shall submit to the department a complete and accurate Notice of Intent (NOI) on a form provided by the department and includes, at a minimum, the following information:

- a. Name of MS4
- b. Operator name and title
- c. Mailing address
- d. Annual fee billing information
- e. Contact person
- f. Contact information
- g. Estimated population (based on most recent Decennial Census by the Bureau of Census)
- h. Receiving water(s) – those listed in A.A.C., Title 18, Chapter 11, Article 1, Appendix B
- i. The number of outfalls that discharge to a receiving water listed in A.A.C. R18-11, Appendix B
- j. Outfall, name or identification of outfalls required in “i,” above
- k. Identification of a minimum of five (5) outfalls (or screening points) to be included in the visual stormwater discharge monitoring program (Part 6.4.3.8)
- l. Identification of impaired and not-attaining waters that receive discharges from the MS4, including the pollutant(s) causing the impairment, total maximum daily load, and waste load allocation(s), as applicable
- m. Identification of Outstanding Arizona Waters that receive discharges from the MS4
- n. BMPs and measurable goals for each of the six (6) minimum control measures (MCMs) identified in Part 6.4
- o. Outfall name or identification of those outfalls to be utilized for analytical monitoring of stormwater discharges to impaired, not-attaining waters and Outstanding Arizona Waters
- p. Schedule for developing and implementing BMPs and associated program elements specified in this permit
- q. Proposal for alternative to visual stormwater discharge monitoring, if applicable (Part 6.4.3.8)
- r. Additional information specified in the NOI for ADEQ to determine eligibility under this permit.

**2.1.2** Eligible persons wishing to retain coverage under this permit (existing and new MS4 operators) must submit a complete and accurate NOI to the department within 180 days of the effective date of this permit. Small MS4 operators notified after the effective date of this permit must submit a NOI within 180 days of receiving notification in writing by ADEQ that they are subject to permitting. Persons failing to submit a new NOI within the applicable timeframe will be considered discharging without a permit.

- 2.1.3** If the department notifies the applicant of deficiencies or inadequacies in any portion of the NOI, or requests additional information, the applicant must correct the deficient or inadequate portions and submit a revised NOI that addresses the deficiencies within seven (7) days of receiving notification.
- 2.1.4** The permittee must submit a revised NOI to the department within fifteen (15) days whenever there is a change of information (certifying official, mailing address, contact information, BMPs, measurable goals, etc.).
- 2.1.5** Notice of Intent forms submitted to ADEQ will be posted on the ADEQ website and made available for public comment. ADEQ may request additional information from the application based on public comments.

## **2.2 Permit Fees**

Permittees are subject to fees established in A.A.C. R18-14-109. The department will issue an invoice annually to the permittee at the address identified on the NOI.

New permittees must submit the applicable fee with their NOI.

Existing permittees are not required to include the annual fee when submitting an NOI to obtain coverage under this permit.

## **2.3 Terminating Coverage**

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

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

NOTs must be signed in accordance with Part 9.9 and must be submitted to the following address until such time as electronic submission is available:

Arizona Department of Environmental Quality  
Surface Water Section (5415A-1)  
1110 West Washington Street  
Phoenix, AZ 85007

## **2.4 Coverage under an Individual Permit**

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

## **2.5 Continuation of this General Permit**

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

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

### **3.0 STORMWATER PROGRAM ENFORCEMENT**

#### **3.1 Establish Enforcement Procedures**

Within twenty-four (24) months from the effective date of this permit, existing and new permittees shall adopt and implement local ordinance(s) or other regulatory mechanism(s) that provide adequate enforcement procedures that satisfy the requirements of this permit to control pollutant discharges into its MS4.

#### **3.2 Enforcement Requirements**

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

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

#### **3.3 Enforcement Response Plan(s)**

The permittee shall develop an enforcement response plan (ERP) that specifies how it will exercise its legal authority to comply with this permit. The ERP shall include a prioritization schedule that establishes escalated enforcement for non-compliance of illicit discharges and construction activities. In developing the ERP, the permittee shall include the following factors in prioritizing escalated enforcement: severity of non-compliance, repeated non-compliance, proximity to a receiving water or storm sewer system, and other appropriate factors. The ERP must be developed and implemented within twenty-four (24) months of obtaining permit coverage.

#### **4.0 STORM SEWER SYSTEM MAPPING**

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

##### **4.1** Develop a map that includes, at a minimum, the following components:

- a. Storm sewer system (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains that are owned or operated by the permittee and convey stormwater to Waters of the U.S.),
- b. Location of all outfalls, and
- c. Name and location of all Waters of the U.S. that receive discharges from outfalls.

##### **4.2** Existing permittees shall update map(s) within twelve (12) months from the effective date of this permit to include areas added as a result of the most recent Decennial Census (including annexed areas) and annually thereafter. Updates shall include mapping components identified in Section 4.1 above.

##### **4.3** New permittees must include a mapping schedule in their NOI. The schedule must include how the permittee will conduct the mapping process, a timeline, measurable goals and estimated completion date(s). The permittee shall have its storm system mapped by the end of the fourth year of permit coverage.

##### **4.4** The permittee must include a narrative description of the status of storm sewer system mapping, outfall mapping, and waters of the U.S. that receive discharges from the outfalls (including percent complete) in each annual report (see Part 8.3).

## 5.0 STORMWATER MANAGEMENT PROGRAM

The permittee shall develop, implement, and enforce a SWMP that is designed to reduce the discharge of pollutants from the MS4 to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act. The program shall be documented and available for review by ADEQ, U.S. EPA, and interested persons.

Existing permittees shall modify or update their existing SWMP to meet the terms and conditions of this permit within six (6) months of the effective date of this permit.

New permittees shall develop a SWMP that meets the conditions of this permit within one (1) year of the effective date of this permit.

At a minimum, all permittees must annually assess, evaluate, and update the BMPs and SWMP and incorporate any revisions necessary to maintain permit compliance. The annual SWMP review must occur in connection with preparing the annual report (see Parts 8.1 and 8.3).

### 5.1 Contents of the Stormwater Management Program

At a minimum, the SWMP shall contain the following:

- a. Listing of all receiving waters, their classification under the applicable state water quality standards, any impairment(s) and associated pollutant(s) of concern, applicable TMDLs and WLAs, and number of outfalls from the MS4 that discharge to each waterbody;
- b. The process and schedule for creating and maintaining an up-to-date map that includes, at a minimum, the storm sewer system, outfalls, and receiving waters;
- c. Listing of all discharges that cause or contribute to the exceedance of an applicable surface water quality standard;
- d. Description of any other practices to achieve compliance with Part 6.1 and 6.2;
- e. Description of practices to achieve compliance with Parts 6.3 and 6.4 (MEP and MCM requirements). For each permit condition identify:
  1. The personnel, position or department responsible for the measure,
  2. The BMPs for each control measure or permit requirement, and
  3. The measurable goal(s) for each BMP. Each measurable goal shall include milestones and timeframes for its implementation and have a quantity and/or quality associated with its endpoint. Each goal shall have a measure of assessment.
- f. Description of practices to achieve compliance with applicable TMDLs or waste load allocation, including measurable goal(s) for each BMP and corresponding milestones and timeframes. Each goal must have an associated measure of assessment;
- g. Analytical monitoring program for impaired or not-attaining waters, and for Outstanding Arizona Waters to ensure compliance with permit limitations, wasteload allocation(s), and surface water quality standards.

The analytical monitoring program shall include a Sampling and Analyses Plan (SAP) that includes the following minimum components: sample collection, equipment and containers, decontamination, calibration procedures, sample frequency (based on illicit discharge characteristics), document site conditions, field notes, sample preservation, tracking (chain-of-custody), and handling;

- h. Protocol for annual program evaluation (Part 8.1). Update annually and maintain copies; and
- i. Identification of personnel (department, position, etc.) responsible for program implementation.

## **5.2 Stormwater Management Plan Availability**

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

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

## 6.0 EFFLUENT LIMITATIONS

The permittee shall develop, implement and enforce a program to reduce the discharge of pollutants from the MS4 to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act and the Arizona Surface Water Quality Standards.

### 6.1 Water Quality Based Effluent Limitations

Pursuant to Clean Water Act 402(p)(3)(B)(iii), this permit includes provisions to ensure that discharges from the permittee's small MS4 do not cause or contribute to an exceedance of surface water quality standards, in addition to requirements to reduce the discharge of pollutants to the maximum extent practicable.

### 6.2 Surface Water Quality Standards

The permittee shall implement the six (6) minimum control measures specified in Part 6.4 to the maximum extent practicable to protect water quality, and to satisfy water quality requirements of the Clean Water Act, including attainment of surface water quality standards.

If the permittee discovers, or is otherwise notified by ADEQ or U.S. EPA, that a discharge from the MS4 is causing or contributing to an exceedance of an applicable surface water quality standard, the permittee shall expand or better tailor its BMPs within the scope of the six (6) minimum control measures in Part 6.4 to achieve progress toward attainment of surface water quality standards.

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

### 6.3 Requirements to Reduce the Discharge of Pollutants

The permittee shall reduce the discharge of pollutants to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate requirements of the Clean Water Act by implementing the six (6) minimum control measures in part 6.4.

### 6.4 Minimum Control Measures

- a. Existing permittees shall continue to implement their existing SWMPs while making updates pursuant to this permit. This permit does not extend the compliance deadlines set forth in Permit AZG2002-002.
- b. Implementation of one (1) or more of the minimum control measures described in Parts 6.4.1 - 6.4.6 or other permit requirements may be shared with another entity (including another interconnected MS4) or the other entity may fully implement the measure or requirement, if the following requirements are satisfied:
  - The other entity implements the control measure as specified in the SWMP;
  - The particular control measure or component thereof undertaken by the other entity is at least as stringent as the corresponding permit requirement;
  - The other entity agrees to implement the control measure on the permittee's behalf. The annual report must specify that the permittee is relying on another entity to satisfy some of its permit obligations and specify what those obligations are;
  - The permittee remains responsible for compliance with all permit obligations if the other entity fails to implement the control measures (or component thereof). The permittee may enter into a legally-binding agreement with the other entity regarding the other entity's

performance of control measures, but the permittee remains ultimately responsible for permit compliance.

#### **6.4.1 Public Education and Outreach**

Objective: The permittee shall implement an education program that includes educational goals based on stormwater issues of significance within the MS4 area. The program shall include a focus on pollutants of concern for impaired and TMDL waters, and priority waters that receive a discharge from the MS4. The ultimate objective of a public education program is to increase knowledge and change behavior of the public so that pollutants in stormwater are reduced.

**6.4.1.1** The permittee shall implement the public education program required by 40 CFR §122.34(b)(2) by distributing educational material to the MS4 community. The educational program shall define goals, express specific messages, define the targeted audience for each message, and identify responsible parties for program implementation. At a minimum, the program shall provide information concerning the impact of stormwater discharges on water bodies within the community, especially waters that are impaired, not-attaining, or identified as Outstanding Arizona Waters. The program shall identify steps and/or activities the public can take to reduce the pollutants in stormwater runoff and their impacts to the environment.

**6.4.1.2** The program shall focus on messages for specific audiences as well as show progress toward the defined educational goals of the program. The permittee shall identify methods that it will use to evaluate the effectiveness of the educational messages and the overall education program. Any methods used to evaluate the effectiveness of the program shall be tied to the defined goals of the program and the overall objective of changes in behavior and knowledge.

**6.4.1.3** The permittee shall modify any ineffective messages or distribution techniques.

**6.4.1.4** The permittee shall document in each annual report: the messages for each audience; the method of distribution; the measures/methods used to assess the effectiveness of the messages, and the method/measures used to assess the overall effectiveness of the education program.

#### **6.4.2 Public Involvement and Participation**

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

**6.4.2.1** All public involvement activities shall comply with state and local public notice requirements. The SWMP and all annual reports shall be available to the public. The permittee is encouraged to satisfy this requirement by posting records online.

**6.4.2.2** The permittee shall annually provide the public an opportunity to participate in the review and implementation of the SWMP.

**6.4.2.3** The permittee shall report on the activities undertaken to provide public participation opportunities including compliance with Part 6.4.2.1. Public participation opportunities pursuant to Part 6.4.2.2 may include, but are not limited to, websites, hotlines, clean-up teams, monitoring teams, or an advisory committee.

### **6.4.3 Illicit Discharge Detection and Elimination (IDDE) Program**

The permittee shall implement an IDDE program to systematically find and eliminate sources of non-stormwater to its municipal separate storm sewer system and to implement procedures to prevent illicit connections and discharges.

The IDDE program shall be recorded in a written document. The IDDE program shall include each of the elements described in Part 6.4.3.8 (a through c), unless the permittee provides a written explanation within the IDDE program as to why a particular element is not applicable to the permittee. For existing permittees, the written IDDE program shall be completed within six (6) months of the effective date of this permit. For new permittees, the written IDDE program shall be completed within one (1) year of the effective date of the permit. The permittee shall implement the IDDE program in accordance with the goals and milestones set forth in Parts 5.0 and 6.4.3.

#### **6.4.3.1. Definitions and Prohibitions**

The permittee shall prohibit illicit discharges (including sanitary sewer overflows) to and from its MS4 and require removal of such discharges consistent with Part 6.4.3.5 of this permit. An illicit discharge is any discharge to a municipal separate storm sewer that is not composed entirely of stormwater *except*:

- a. Discharges authorized under a separate NPDES permit that authorize a discharge to the MS4;
- b. Non-stormwater discharges allowed by Part 1.3.2.

#### **6.4.1.5 Enforcement Procedures**

The IDDE program must ensure the permittee has adequate enforcement procedures to accomplish the following tasks: prohibit illicit discharges; investigate suspected illicit discharges; eliminate illicit discharges, including discharges from properties not owned or operated by the MS4 that discharge into the MS4 system; and implement appropriate enforcement procedures and actions. Adequate enforcement procedures consists of a current effective ordinance, by-law, or other regulatory mechanism. For existing permittees, the ordinance, by-law, or other regulatory mechanism was a requirement of AZG2002-002 and is required to be effective under that permit. The written IDDE program shall include a reference or citation of the authority the permittee will use to implement all aspects of the IDDE program as specified in Part 3.0.

#### **6.4.3.3 Statement of IDDE Program Responsibilities**

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

#### **6.4.3.4 Illicit Discharge Prevention and Reporting**

The permittee shall develop and implement process(es) and procedures designed to prevent, identify, report, and mitigate illicit discharges to and from the MS4 (this may be a part of the education program required by Part 6.4.1; reporting (hotlines), and training of public employees involved in the IDDE program).

#### **6.4.3.5 Eliminating Illicit Discharges**

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

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

To the extent known, the permittee shall include in the annual report the following information: the location of the illicit discharge and its source(s); a description of the discharge; estimated illicit discharge duration; the method of discovery; date of discovery; date of elimination; mitigation or enforcement action; responsible person (if known); and estimated volume.

#### **6.4.3.6 Non-Stormwater Discharges**

The non-stormwater discharges identified in Part 1.3.2 do not need to be addressed as an illicit discharge unless it is determined by the permittee that any of these sources is a significant contributor of pollutants. Non-stormwater discharges from the MS4 that cause or contribute to a violation of a surface water quality standard where the permittee fails to take action to eliminate the discharge of pollutants constitutes a permit violation.

#### **6.4.3.7 Existing Permittees IDDE Programs**

During the development of the new components of the IDDE program required by this permit, existing permittees must continue to implement their current IDDE program required by the AZG2002-002 to detect and eliminate illicit discharges to its MS4.

#### **6.4.3.8 Visual Monitoring**

The permittee shall develop, implement, and maintain a visual monitoring program that includes both dry weather and stormwater discharges to identify, monitor, and eliminate illicit discharges; and to ensure compliance with effluent limitations in this permit.

The monitoring programs shall include written procedures for conducting visual monitoring of outfalls from the MS4.

Monitoring procedures shall include, at a minimum, the following information/observations: outfall identification, personnel, time, date, weather conditions at time of inspection, estimated flowrate, apparent odor, color, clarity, debris, floatables, and other necessary information to characterize the screening.

In the event an illicit discharge is discovered as a result of dry or wet weather outfall monitoring, the permittee shall implement measures to eliminate the illicit discharge (part 6.4.3.5).

For each confirmed illicit discharge, the permittee shall include in the annual report the following information: the location of the discharge and its source(s); a description of the discharge; estimated illicit discharge duration; the method of discovery; date of discovery; date of elimination; mitigation or enforcement action; responsible person (if known); and estimated volume.

**a) Visual Dry Weather Outfall Monitoring**

Within six (6) months of obtaining authorization to discharge, the permittee shall develop and implement a visual, dry weather outfall monitoring program. Dry weather monitoring must be conducted at least 72 hours after a storm event that resulted in a discharge from the storm sewer system.

The permittee shall document and include findings of dry weather monitoring in the annual report.

**b) Visual Stormwater Discharge Monitoring**

The permittee shall identify a minimum of five (5) outfalls that are representative of its stormwater discharges to conduct visual stormwater discharge monitoring. If the permittee has less than five (5) outfalls, then the permittee shall monitor all outfalls as part of the stormwater discharge monitoring program. In the event a Small MS4 does not have five (5) outfalls, a minimum of five (5) screening points, or combination of outfalls and screening points, shall be utilized. Screening points shall be at locations where stormwater leaves the Small MS4's permitted area including locations where stormwater may discharge to another MS4 or other conveyance. The outfalls / screening points selected for visual stormwater discharge monitoring shall be identified in the NOI.

Within six (6) months of obtaining authorization to discharge, the permittee shall develop and implement a stormwater discharge visual monitoring program. The stormwater discharge monitoring program must be conducted in response to a storm event that results in a discharge from the storm sewer system and, to the extent practicable, should include the first flush.

The permittee shall conduct a minimum of two (2) stormwater discharge monitoring events during each wet season of the representative outfall(s) and shall document and include findings in the annual report.

Summer Wet Season: June 1 through October 31  
Winter Wet Season: November 1 through May 31

In the event a permittee cannot access any outfall(s) during a wet weather discharge, the permittee shall conduct wet weather screening as soon as practicable after the storm or discharge event.

Visual Stormwater Discharge Monitoring Alternative – the permittee may elect to submit in its NOI (see part 2.1.1) alternative practices to visual stormwater discharge monitoring. In doing so, the permittee shall include a written description as to how and why the proposed alternative is as effective, or more effective, than visual stormwater discharge monitoring.

**c) Follow-up Screening**

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

**6.4.3.9 Indicators of IDDE Program Progress**

The permittee shall define or describe indicators for tracking program success. At a minimum, indicators shall include measures that demonstrate efforts to locate illicit discharges identified and removed. Such measures may include response time to inspection, public awareness, time from discovery to elimination, and other appropriate factors.

The permittee shall evaluate and report the overall effectiveness of the program based on the tracking measures outlined in Part 6.4.3.8 in the annual program evaluation and in the annual report.

**6.4.3.10 Staff Training**

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

**6.4.3.11 Unpermitted (Illicit) Discharges to the MS4**

The permittee shall develop, implement, and enforce a program to actively identify facilities and activities (e.g., industrial facilities, construction activities, etc.) that discharge to the MS4 without an AZPDES/NPDES permit.

The permittee shall include the number of facilities contacted each year in the annual report and shall include the facility name, type of activity conducted at the facility (including SIC code, to the extent known), and whether or not the facility has AZPDES permit coverage, if known or available.

A description of the permittee's illicit discharge program shall be included in the SWMP.

**6.4.4 Construction Activity Stormwater Runoff Control**

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

#### **6.4.4.1 Construction Activity Stormwater Runoff Implementation**

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

#### **6.4.4.2 Construction Activity Stormwater Runoff Program Components**

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

- a. An ordinance or other regulatory mechanism that requires the use of sediment and erosion control practices.
- b. An inventory of all construction activities that disturb or will disturb one (1) or more acres within the permitted area, including those that are less than one (1) acre but are part of a larger common plan of development or sale if the larger common plan will ultimately disturb greater than one (1) acre.
- c. Written procedures for site inspections and enforcement of sediment and erosion control measures. If not already existing, these procedures shall be completed within one (1) year from the date of submitting an NOI to ADEQ. The procedures shall clearly define who is responsible for site inspections as well as who has authority to implement enforcement procedures. The program must allow the permittee, to the extent authorized by law, to impose sanctions ensuring compliance with the local program. These procedures and regulatory authorities shall be documented in the SWMP.
- d. In developing construction activity inspection frequency, the permittee shall consider, at a minimum, the following:
  1. Phase of construction;
  2. Proximity to an impaired, not-attaining water or Outstanding Arizona Water;
  3. Size of the construction activity (acreage disturbed); and
  4. History of non-compliance (site or operator).
- e. Based on construction activity inspection findings, the permittee must take all necessary follow-up actions (i.e., re-inspection, enforcement) to ensure compliance in accordance with the permittee's enforcement response plan required under Part 3.3.
- f. Requirements for construction operators to implement sediment and erosion control BMPs appropriate for the conditions at the construction activity. Examples of appropriate sediment and erosion control measures for construction activities include local requirements to:
  1. Minimize the amount of disturbed area and protect natural resources;
  2. Stabilize sites when projects are complete or operations have temporarily ceased;
  3. Protect slopes on the site of the construction activity;
  4. Protect storm drain inlets and armor all newly-constructed outlets;
  5. Use perimeter controls at the site;

6. Stabilize entrance(s) and exit(s) at the location of the construction activity to prevent off-site tracking; and
  7. Inspect stormwater controls at consistent intervals.
- g. Requirements to control wastes, including but not limited to: discarded building materials; paints; fertilizers; concrete wash out; chemicals; litter; and sanitary wastes.
- h. Written procedures for site plan review. If not already existing, the procedures for site plan review which incorporate consideration of potential water quality impacts shall be completed within one (1) year from date the NOI is submitted to ADEQ. Site plan review shall include: a review by the permittee of the site design; the planned operations at the location of the construction activity; planned stormwater controls during the construction phase; and the planned controls to be used to manage runoff created after development (see 6.4.5).

#### **6.4.4.3 Personnel Qualifications**

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

#### **6.4.4.4 Construction Activity Operator Education and Public Involvement**

The permittee must develop and implement a program to provide education to construction activity operators on erosion and sediment control best management practices requirements and establish procedures for receipt of and consideration of information submitted by the public (see also Part 6.4.2).

#### **6.4.4.5 Tracking and Recordkeeping**

The permittee must track the number of inspections and re-inspections of construction activities to verify the sites are inspected at the frequency established under Part 6.4.4.2 (d) and (e) and include this information in the annual report.

### **6.4.5 Post-Construction Stormwater Management in New Development and Redevelopment**

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

The post-construction stormwater management program must include a combination of structural and/or non-structural best management practices, as well as the components identified in this section.

Permittees shall maintain all records associated, including enforcement actions, in accordance with Part 8.2

#### **6.4.5.1 Regulatory Mechanism for Post-Construction Stormwater Controls**

The new development/redevelopment program shall include an ordinance or regulatory mechanism to address runoff from new development and redevelopment projects.

The regulatory mechanism must specify that owners or operators of new development and redevelopment sites discharging to the MS4, design, install, and maintain post-construction stormwater controls that reduce or eliminate the discharge of pollutants from the site after construction activities are completed.

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

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

#### **6.4.5.2 Site Plan Review**

The permittee shall design, implement, and maintain a site plan review process to evaluate and approve post-construction stormwater controls.

#### **6.4.5.3 Post-Construction Stormwater Control Inventory**

Within the first year of the effective date of this permit, the permittee shall implement and maintain an inventory system of all post-construction structural stormwater control measures installed and implemented at new development and redeveloped sites, including both public and private sector sites located within the permit area that discharge into the MS4. The inventory must be searchable by property location (either on paper or electronic) or other relevant criteria.

#### **6.4.5.4 Operation and Maintenance of Post-Construction BMPs**

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

#### **6.4.6 Pollution Prevention and Good Housekeeping for Municipal Operations**

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

Existing permittees must continue to implement established operation and maintenance programs while updating those programs, as necessary, to comply with the requirements of this permit. Program updates must be developed and implemented within six (6) months of obtaining permit coverage.

New permittees must develop and implement the following program requirements within one (1) year of obtaining permit coverage.

At a minimum, the program must include:

- a. Develop an inventory of municipal operations that discharge;
- b. Prioritize municipal facilities based on their risk to discharge pollutants and develop and implement a site inspection schedule (example, more frequent inspections for higher risk facilities, less frequent inspections for lower risk facilities);
- c. Develop and implement an inspection schedule for municipally-owned and operated facilities and activities to ensure stormwater controls are effective and being properly maintained;
- d. Based on inspection findings, update municipally-owned or operated facilities priority status and modify inspection frequency, as appropriate;
- e. Develop and implement stormwater controls at municipally-owned or operated facilities and discharge activities to reduce or eliminate the discharge of pollutants;
- f. Develop and implement an employee training program to incorporate pollution prevention and good housekeeping techniques into everyday operations and maintenance activities; and
- g. Develop maintenance activities, maintenance schedules, and long-term inspections procedures for structural and non-structural stormwater controls to reduce floatables, trash, and other pollutants discharged from the MS4.

## 7.0 ANALYTICAL MONITORING

In addition to analytical monitoring of municipal stormwater discharges to impaired, not-attaining waters and Outstanding Arizona Waters (OAWs), ADEQ may notify the permittee in writing of additional monitoring requirements to ensure protection of receiving water quality or to ensure permit compliance. Additional monitoring will be required if there is evidence that a pollutant is being discharged by the permittee that may be causing or contributing to exceedances of a water quality standard. Any such notice will provide an explanation of the reasons for the monitoring, locations, and parameters to be monitored, frequency and period of monitoring, sample types, and reporting requirements.

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

### 7.1 General Monitoring Requirements

The monitoring provisions of this Part apply to permittees that must conduct analytical monitoring. The permittee shall collect and analyze stormwater samples and document monitoring activities consistent with the procedures described in Part 6.4.3.8 and Part 9.

- a. The purpose of the monitoring section of this permit is to:
  1. Assess the impacts to impaired, not-attaining, or Outstanding Arizona Waters (OAWs) resulting from stormwater discharges from Small MS4 outfalls;
  2. Characterize stormwater discharges;
  3. Identify sources of elevated pollutant loads and specific pollutants; and
  4. Assess the overall health and evaluate long-term trends in water quality of impaired, not attaining, or OAWs.
- b. The permittee shall identify in the SWMP and annual reports discharges that:
  1. Discharge to impaired waters listed on the Arizona's 303(d) list (Category 5) and those listed as not attaining (Category 4) on Arizona's Water Quality Assessment report;
  2. Discharges to OAWs listed in A.A.C. R18-11-112; and
  3. Additional monitoring required by ADEQ.
- c. Annual reporting requirements for outfall monitoring are included in Part 8.3.
- d. Analytical Monitoring Schedule:
  1. Existing Permittees – Impaired, not-attaining, and OAW monitoring must be fully implemented no later June 1, 2017.
  2. New Permittees – Impaired, not-attaining, and OAW monitoring must be fully implemented no later than November 1, 2017.
  3. Alternative schedule specified by ADEQ.

The required monitoring events may be distributed during seasons when precipitation occurs, or when snowmelt results in a measurable discharge from the site. Wet seasons apply statewide and are defined as follows:

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

The term 'wet season' includes areas of the state where freezing conditions exist that prevent runoff from occurring for extended periods. In areas where freezing conditions exist, the required monitoring and sample collection may be distributed during seasons when precipitation runoff, either as melting snow or rain mixed with melting snow, occurs.

## **7.2 Discharges to Impaired and Not-Attaining Waters**

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

If the waterbody is listed for suspended solids, turbidity or sediment/sedimentation and the discharge occurs for more than 48 hours after the storm event, the permittee shall monitor for suspended sediment concentration (SSC). If the pollutant causing the impairment is expressed in the form of an indicator or surrogate pollutant, the permittee shall monitor for that indicator or surrogate pollutant.

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

## **7.3 Discharges to Outstanding Arizona Waters**

Analytical monitoring of outfalls that discharge to an OAW must be conducted twice per wet season for the entire permit term to assure discharges from the MS4 do not degrade existing water quality, or cause or contribute to an exceedance of an Arizona surface water quality standard. The permittee shall establish a list of analytical parameters to be included in the monitoring program and shall identify the analytical parameter and justification/rationale for selecting the key parameters in the SWMP.

## **7.4 Tracking**

Permittees with outfalls that discharge to impaired, not-attaining, or OAWs shall develop a system to track the information required in the permit and the information required to be reported in the annual report (see Part 8.3). The tracking system shall be developed and implemented within twelve (12) months of the effective date of this permit.

The permittee must implement, and revise as necessary, a comprehensive monitoring and assessment program. A description of this program must be included in the SWMP. The monitoring and assessment program must be designed to meet the following objectives:

- a. Assess compliance with this permit;
- b. Measure the effectiveness of the permittee's stormwater management program;
- c. Assess the chemical, physical, and biological impacts to receiving waters resulting from stormwater discharges;
- d. Characterize stormwater discharges;
- e. Identify sources of specific pollutants;
- f. Detect and eliminate illicit discharges and illegal connections to the MS4; and
- g. Assess the overall health and evaluate long-term trends in receiving water quality.

## 8.0 PROGRAM ASSESSMENT, RECORDKEEPING, AND REPORTING

### 8.1 Program Evaluation

**8.1.1** The permittee shall annually self-evaluate its compliance with the terms and conditions of this permit. The permittee shall maintain the annual evaluation documentation as part of the SWMP. The permittee shall include this information in the annual report.

**8.1.2** The permittee shall evaluate the appropriateness of the selected BMPs in achieving the objectives of each control measure and the defined measurable goals. The permittee may change BMPs in accordance with the following provisions:

- a. Adding (but not subtracting or replacing) components or controls may be made at any time;
- b. Changes replacing an ineffective or infeasible BMP specifically identified in the SWMP with an alternative BMP may be made if the proposed changes meet the criteria of this Part.

The permittee shall include this information in the annual report.

**8.1.3** BMP modification documentation shall include the following information and all documentation shall be kept in the SWMP:

- a. An analysis of why the BMP is ineffective or infeasible;
- b. Expectations on the effectiveness of the replacement BMP; and
- c. An analysis of why the replacement BMP is expected to achieve the defined goals of the BMP to be replaced.

The permittee shall indicate BMP modifications along with a brief explanation of the modification in the annual report.

**8.1.4** ADEQ may require the permittee to add, modify, repair, replace or change BMPs or other measures described in the annual reports to address the following:

- a. Impacts to receiving water quality caused or contributed to by discharges from the MS4;
- b. To satisfy conditions of this permit;
- c. To include more stringent requirements necessary to comply with new state or federal legal requirements; or
- d. Attainment of surface water quality standards.

Any changes requested by ADEQ will be in writing and will require the permittee to develop a schedule to implement the changes and will offer the permittee the opportunity to propose alternative program changes to meet the objective of the requested modification.

## 8.2 Recordkeeping

- 8.2.1** The permittee shall keep all records required by this permit for a period of at least three (3) years. Records include information used in the development of any written program required by this permit, any monitoring results, copies of reports, records of screening, follow-up and elimination of illicit discharges; maintenance records; inspection records; enforcement actions; and data used in the development of the notice of intent, SWMP, plans, and annual reports. This list provides examples of records that should be maintained, but is not all inclusive.
- 8.2.2** Records other than those required to be included in the discharge monitoring report (Part 8.3) and annual report (Part 8.4), shall be submitted upon request by ADEQ, or U.S. EPA.
- 8.2.3** The permittee shall make the records relating to this permit, including the written stormwater management program, available to the public. The public may view the records during normal business hours. The permittee may charge a reasonable fee for copying requests. The permittee is encouraged to satisfy this requirement by posting records online.

## 8.3 Discharge Monitoring Report

The permittee must submit all monitoring results (analytical and visual monitoring results) on a discharge monitoring report (DMR) in a manner prescribed by ADEQ (electronic, paper format, etc.). In the event electronic reporting becomes available, permittees must submit analytical and visual monitoring results using an online program or portal application prescribed by ADEQ (or U.S. EPA). DMRs must be submitted no later than September 30 of each year and shall include analytical and visual monitoring results for the period July 1 through June 30 of the preceding calendar year.

## 8.4 Annual Report

The permittee shall submit an annual report each year of the permit term to ADEQ. The reporting period is from July 1 through June 30 each year. The annual report is due to ADEQ on or before September 30 each year for the reporting period. The annual reports shall contain the following information:

- a. The status of compliance with the permit terms and conditions;
- b. Updates regarding mapping requirements (see Part 4.1), including percent complete;
- c. An evaluation of the appropriateness and efficacy of the selected BMPs;
- d. An assessment of the progress towards achieving the measurable goals and objectives of each control measure in Part 6.4 including description of the targeted messages for each audience; method of distribution and dates of distribution; methods used to evaluate the program; and any changes to the program;
- e. Description of the activities used to promote public participation;
- f. Description of the activities related to implementation of the IDDE program including: status and results of the illicit discharge potential protocols described in Parts 6.4.3.4 (program responsibilities and systematic procedure); number and identifier of assets inspected or evaluated; number and identifier of outfalls screened; number of illicit discharges located; number of illicit discharges removed; and employee training;

- g. All outfall screening and monitoring data collected by or on behalf of the permittee during the reporting period and cumulative for the permit term, including but not limited to all data collected pursuant to Parts 6.4.3 and 7.0;
- h. The status of any plans or activities required by Part 6.4.3 and/or Part 7.1 (impaired and not-attaining waters), including:
  - 1. Identification of all discharges determined to be causing or contributing to an exceedance of water quality standards and description of response;
  - 2. For discharges subject to TMDLs, identification of specific BMPs used to address the pollutant identified as the cause of the impairment and assessment of the BMPs effectiveness at controlling the pollutant;
- i. Status of the construction runoff management including number of project plans reviewed, number of inspections, and number of enforcement actions;
- j. Status of stormwater management for new development and redevelopment including status of ordinance development and review;
- k. Status of the operation and maintenance programs required by Part 6.4.6.1;
- l. Description of any changes in identified BMPs or measurable goals;
- m. Any additional reporting requirements specified in Parts 1-7; and
- n. Description of activities to be conducted during the next reporting cycle.

Reports must be submitted to ADEQ at the following address:

Arizona Department of Environmental Quality  
1110 West Washington Street, Mail Code 5451A-1  
Phoenix, Arizona 85007

In the event electronic reporting becomes available, permittees must submit their annual reports using an online program or portal application prescribed by ADEQ (or U.S. EPA).

## 9.0 STANDARD PERMIT CONDITIONS

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

1. **Duty to Comply:** [A.A.C. R18-9-A905(A)(3)(a), which incorporates 40 CFR 122.41(a)(1) and A.R.S. §§ 49-261, 262, 263.01, and 263.02.]
  - a. The operator shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act; A.R.S. Title 49, Chapter 2, Article 3.1; and A.A.C. Title 18, Chapter 9, Article 9, and is grounds for enforcement action, permit termination, revocation and reissuance, or modification, or denial of a permit renewal application.
  - b. The issuance of this permit does not waive any federal, state, county, or local regulations or permit requirements with which a person discharging under this permit is required to comply.
  - c. The operator shall comply with any effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.
  
2. **Duty to Reapply / Continuation of the Expired General Permit:** [A.A.C. R18-9-A905, which incorporates 40 CFR 122.41(b) and A.A.C. R18-9-C903]
  - a. Upon reissuance of the general permit, the permittee shall file an NOI, within the timeframe specified in the new general permit, and shall obtain new written authorization to discharge from the Director.
  - b. If the Director does not reissue the general permit before the expiration date, the current general permit will be administratively continued and remain in force and effect until the general permit is reissued.
  - c. Any operator granted authorization to discharge under the general permit before the expiration date automatically remains covered by the continued general permit until the earlier of:
    - i. Reissuance or replacement of the general permit, at which time the operator shall comply with the NOI conditions of the new general permit to maintain authorization to discharge; or
    - ii. The date the operator has submitted a Notice of Termination; or
    - iii. The date the Director has issued an individual permit for the discharge; or
    - iv. The date the Director has issued a formal permit decision not to reissue the general permit, at which time the operator shall seek coverage under an alternative general permit or an individual permit, or cease discharge.
  
3. **Need To Halt or Reduce Activity Not a Defense:** [A.A.C. R18-9-A905(A)(3)(a), which incorporates 40 CFR 122.41(c)]

It shall not be a defense for an operator in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
  
4. **Duty to Mitigate:** [A.A.C. R18-9-A905(A)(3)(a), which incorporates 40 CFR 122.41(d)]

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

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

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

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

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

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

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

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

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

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

All Notices of Intent (NOI) and Notices of Termination (NOT) must be signed as follows:

- a. NOIs:
  - i. For a corporation: By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
  - ii. For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or
  - iii. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal (or state) agency includes: (1) The chief executive officer (or director) of the agency, or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

- b. All NOTs, reports, plans, inspection reports, monitoring reports, and other information required by this permit must be signed by a person described in Part 9.9(a), above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - i. The authorization is made in writing by a person described in Subsection 9(a) above;
  - ii. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of manager, operator, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may be either a named individual or any individual occupying a named position); and
  - iii. The signed and dated written authorization is included in the SWMP. A copy must be submitted to ADEQ, upon request.

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

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

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

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

- a. Enter upon the operator's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
- b. Have access to and copy at reasonable times, any records that must be kept under the conditions of this general permit;
- c. Inspect at reasonable times any facility or equipment (including monitoring and control equipment), practices or operations regulated or required under this permit;
- d. Sample or monitor at reasonable times any substances or parameters at any location, for the purposes of assuring permit compliance or as otherwise authorized by A.R.S. Title 49, Chapter 2, Article 3.1, and 18 A.A.C. 9, Articles 9.

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

- a. Representative Samples/Measurements: Samples and measurements taken for the purpose of monitoring must be representative of the volume and nature of the monitored activity.
- b. Retention of Records: The operator shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date permit coverage ends. Operators shall submit any such records to the Director upon request. The operator shall retain the SWPPP developed in accordance with Part 6 of this permit, for at least three (3) years after the last modification or amendment is made to the plan. The Director may extend this retention period upon request by notifying the operator in writing at any time prior to the end of the standard three year retention period.

- c. Records Contents: Records of monitoring information must include:
  - i. The date, exact location, and time of sampling or measurements;
  - ii. The initials or name(s) of the individual(s) who performed the sampling or measurements;
  - iii. The date(s) analyses were performed;
  - iv. The time(s) analyses were initiated;
  - v. The initials or name(s) of the individual(s) who performed the analyses;
  - vi. References and written procedures, when available, for the analytical techniques or methods used;
  - vii. The analytical techniques or methods used; and
  - viii. The results of such analyses.
- d. Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained in this permit is subject to the enforcement actions established under A.R.S. Title 49, Chapter 2, Article 4, which includes the possibility of fines and/or imprisonment.

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

- a. Planned changes: The operator shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
  - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b) (incorporated by reference at A.A.C. R18-9-A905(A)(1)(e)); or
  - ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1) (incorporated by reference at A.A.C. R18-9-A905(A)(3)(b)).
- b. Monitoring reports: Monitoring results must be reported at the intervals specified elsewhere in this permit.
  - i. Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms (paper or electronic) provided or specified by ADEQ.
  - ii. If the operator monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
  - iii. Calculations for all limitations which require averaging of measurements must use an arithmetic mean and non-detected results must be incorporated in calculations as the limit of quantitation for the analysis.
- c. Anticipated noncompliance: The operator shall give advance notice to the Director of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.
- d. Twenty-four hour reporting:
  - i. The operator shall report to ADEQ any noncompliance with this permit which may endanger human health or the environment. The operator shall orally notify the office listed below within 24 hours:

Arizona Department of Environmental Quality – Water Quality Division  
1110 W. Washington Street  
Phoenix, AZ 85007  
Office: (602) 771 - 4508

- ii. A written submission shall also be provided to the office identified above within five (5) days of the time the operator becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
- iii. The following shall be included as information which must be reported within 24 hours under this paragraph.
  - 1) Any upset which exceeds any effluent limitation in the permit.
  - 2) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours. (See 40 CFR 122.44(g) which is incorporated by reference at A.A.C. R18-9-A905(A)(3)(d)).
- iv. ADEQ may waive the written report on a case-by-case basis for reports under this subsection if the oral report has been received within 24 hours.
- e. Other noncompliance: The operator shall report all instances of noncompliance not otherwise required to be reported under this subsection, at the time monitoring reports are submitted. The reports shall contain the information listed in subsection 12(d).
- f. Other information: When the operator becomes aware that it failed to submit any relevant facts or submitted incorrect information in the Notice of Intent or in any other report to the Department, the operator shall promptly submit the facts or information to ADEQ at the address listed in Part 8.2.

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

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

**14. Other Environmental Laws:**

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

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

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

**16. Severability:**

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

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

- a. The Director may require a person authorized by this permit to apply for and/or obtain either an individual AZPDES permit or an alternative AZPDES general permit. Any interested person may petition the Department to take action under this section. The Department may require an operator authorized to discharge under this permit to apply for an individual permit in any of the following cases:
  - i. A change occurs in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source;
  - ii. Effluent limitation guidelines are promulgated for point sources covered by the general permit;
  - iii. An Arizona Water Quality Management Plan containing requirements applicable to the point sources is approved;
  - iv. Circumstances change after the time of the request to be covered so that the discharger is no longer appropriately controlled under the general permit, or either a temporary or permanent reduction or elimination of the authorized discharge is necessary;
  - v. If the Director determines that the discharge is a significant contributor of pollutants. When making this determination, the Director shall consider:
    - 1) The location of the discharge with respect to waters of the United States,
    - 2) The size of the discharge,
    - 3) The quantity and nature of the pollutants discharged to waters of the U.S., and
    - 4) Any other relevant factor.
- b. If an individual permit is required, the Director shall notify the discharger in writing of the decision. The notice shall include:
  - i. A brief statement of the reasons for the decision;
  - ii. An application form;
  - iii. A statement setting a deadline to file the application;
  - iv. A statement that on the effective date of issuance or denial of the individual permit, coverage under the general permit will automatically terminate;
  - v. The applicant's right to appeal the individual permit requirement with the Water Quality Appeals Board under A.R.S. § 49-323, the number of days the applicant has to file a protest challenging the individual permit requirement, and the name and telephone number of the Department contact person who can answer questions regarding the appeals process; and
  - vi. The applicant's right to request an informal settlement conference under A.R.S. 41-1092.03(A) and 41-1092.06.
- c. The discharger shall apply for an individual permit within 90 days of receipt of the notice, unless the Director grants a later date. In no case shall the deadline be more than 180 days after the date of the notice.
- d. If the discharger fails to submit the individual permit application within the time period established in Part 9.17(c) the applicability of the general permit to the discharger is automatically terminated at the end of the day specified by the Director for application submittal.
- e. Coverage under the general permit shall continue until an individual permit is issued or denied unless the general permit coverage is terminated under Part 9.17(d).

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

- a. An operator may request an exclusion from coverage of a general permit by applying for an individual permit.
  - i. The operator shall submit an individual permit application under R18-9-B901(B) and include the reasons supporting the request no later than 90 days after publication of the general permit.
  - ii. The Director shall grant the request if the reasons cited by the operator are adequate to support the request.
- b. If an individual permit is issued to a person otherwise subject to a general permit, the applicability of the general permit to the discharge is automatically terminated on the effective date of the individual permit.

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

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

- a. Permitted owner or operator: The operator shall provide the Department with a Notice of Termination by certified mail within 30 days after the new owner or operator assumes responsibility for the facility.
  - i. The Notice of Termination shall include all requirements for termination specified in the general permit for which the Notice of Termination is submitted.
  - ii. An operator shall comply with the permit conditions specified in the general permit for which the Notice of Termination is submitted until the Notice of Termination is received by the Department.
- b. New owner or operator:
  - i. The new owner or operator shall complete and file a Notice of Intent with the Department within the time period specified in the general permit before taking over operational control of, or initiation of activities at, the facility.
  - ii. If the previous operator was required to implement a stormwater pollution prevention plan, the new owner shall develop a new stormwater pollution prevention plan, or may modify, certify, and implement the old stormwater pollution prevention plan if the old stormwater pollution prevention plan complies with the requirements of the current general permit.
  - iii. The operator shall provide the Department with a Notice of Termination if a permitted facility ceases operation, ceases to discharge, or changes operator status. In the case of a construction activity, the operator shall submit a Notice of Termination to the Department when:
    - 1) The facility ceases construction operations and the discharge is no longer associated with construction or construction-related activities,
    - 2) The construction is complete and final site stabilization is achieved, or
    - 3) The operator's status changes.

**20. Bypass:** [A.A.C. R18-9-A905(A)(3)(a), which incorporates 40 CFR 122.41(m)]

- a. Definitions:
  - i. Bypass means the intentional diversion of waste streams from any portion of a treatment facility;

- ii. Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
    - b. Bypass not exceeding limitations: The operator may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions Part 9.20(c) and 20(d).
    - c. Notice:
      - i. Anticipated bypass. If the operator knows in advance of the need for a bypass, if possible prior notice shall be submitted at least ten days before the date of the bypass.
      - ii. Unanticipated bypass. The operator shall submit notice of an unanticipated bypass as required in Part 9.12(d).
    - d. Prohibition of bypass:
      - i. Bypass is prohibited, and ADEQ may take enforcement action against the operator for bypass, unless:
        - 1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
        - 2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
        - 3) The operator submitted notices as required under Part 9.20(c).
      - ii. ADEQ may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in this Part 9.20(d).
- 21. Upset:** [A.R.S. §§ 49-255(8) and 255.01(E), A.A.C. R18-9-A905(A)(3)(a), which incorporates 40 CFR 122.41(n)]
- a. Definition: Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the operator. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
  - b. Effect of an upset: An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Part 9.21(c) are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
  - c. Conditions necessary for a demonstration of upset: An operator who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
    - i. An upset occurred and that the operator can identify the cause(s) of the upset;
    - ii. The permitted facility was at the time being properly operated;

- iii. The operator submitted notice of the upset as required in Part 9.12(d)(iii); and
  - iv. The operator complied with any remedial measures required under Part 9.4.
- d. Burden of proof: In any enforcement proceeding, the operator, who is seeking to establish the occurrence of an upset, has the burden of proof.

## 22. Penalties for Violations of Permit Conditions

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

- a. Civil Penalties: A.R.S. § 49-262 provides that any person who violates any provision of A.R.S. Title 49, Chapter 2, Article 2, 3 or 3.1 or a rule, permit, discharge limitation or order issued or adopted under A.R.S. Title 49, Chapter 2, Article 3.1 is subject to a civil penalty not to exceed \$25,000 per day per violation.
- b. Criminal Penalties: Any person who violates a condition of this general permit, or violates a provision under A.R.S. Title 49, Chapter 2, Article 3.1, or A.A.C. Title 18, Chapter 2, Article 9 is subject to the enforcement actions established under A.R.S. Title 49, Chapter 2, Article 4, which may include the possibility of fines and/or imprisonment.

## 10.0 DEFINITIONS

1. **Analytical monitoring** – means monitoring conducted to provide quantitative results in accordance with A.A.C. R18-9-A905(B).
2. **Best management practices (BMPs)** – means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of “waters of the United States.” BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.
3. **Common plan of development** – a contiguous area where multiple separate and distinct land disturbing activities may be taking place at different times, on different schedules, but under one plan. A ‘plan’ is broadly defined to include design, permit application, advertisement or physical demarcation indicating that land-disturbing activities may occur.
4. **Construction activity** – means earth-disturbing activities such as, clearing, grading, excavating, stockpiling of fill material and other similar activities. This definition encompasses both large construction activities defined in 40 CFR 122.26 (b)(14)(x) and small construction activities in 40 CFR 122.26 (b)(15)(i) and includes construction support activities.
5. **Controls or Control Measures or Measures** – means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or control the pollution of waters of the United States. Controls 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.
6. **CWA or The Act** means Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended Pub. L. 95 217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et.seq.
7. **Department** – the Arizona Department of Environmental Quality.
8. **Discharge** – when used without qualification means the “discharge of a pollutant.”
9. **Discharge of a pollutant** – any addition of any “pollutant” or combination of pollutants to “waters of the United States” 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 waters of the United States from surface runoff which is collected or channeled by man. See 40 CFR 122.2.
10. **Discharge point** – the location where stormwater flows exit the construction activity.
11. **Effluent limitations** – means any limitation or condition on quantities, discharge rates, or concentration of pollutants which are discharged from a point source.
12. **Effluent Limitations Guideline (ELG)** – defined in 40 CFR § 122.2 as a regulation published by the Administrator under section 304(b) of CWA to adopt or revise effluent limitations.
13. **Ephemeral water** – a surface water that has a channel that is at all times above the water table, and that flows only in direct response to precipitation. [A.A.C. R18-11-101(22)]

14. **Existing Permittees** means Small MS4 operators who had coverage under ADEQ's 2002 Small MS4 General Permit.
15. **Facility** means any "point source" or any other facility (including land or appurtenances thereto) that is subject to regulation under the AZPDES/NPDES program.
16. **Field Screening Point** means location(s) where municipal stormwater leaves a Small MS4 operator's permitted area and goes to a Waters of the U.S. by way of a conveyance (such as another municipal storm sewer system).
17. **Illicit connection** means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.
18. **Illicit discharge** means any discharge to a municipal separate storm sewer that is not composed entirely of stormwater except discharges pursuant to a AZPDES/NPDES permit (other than the AZPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from firefighting activities.
19. **Impaired water** – waters that have been assessed by ADEQ, under the Clean Water Act, as not attaining a water quality standard for at least one (1) designated use, and are listed in Arizona's current 303(d) List or on the 305(b) Category 4 list.
20. **Intermittent water** or **Intermittent stream** – a stream or reach that flows continuously only at certain times of the year, as when it receives water from a spring or from another surface source, such as melting snow. [A.A.C. R18-11-101(25)]
21. **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. A discussion of MEP as it applies to small MS4s is found at 40 CFR 122.34. CWA section 402(p)(3)(B)(iii) requires that a municipal permit "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system design, and engineering methods, and other provisions such as the Administrator or the State determines appropriate for the control of such pollutants.
22. **Measurable Goal** means a quantitative measure of progress in implementing a component of a storm water management program.
23. **Minimize** – to reduce and/or eliminate to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practices.
24. **Municipal separate storm sewer** – a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):
  - a. Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the Clean Water Act (33 U.S.C. 1288) that discharges to waters of the United States;
  - 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.

- 25. Municipal separate storm sewer system (MS4)** – all separate storm sewers defined as “large,” “medium,” or “small” municipal separate storm sewer systems or any municipal separate storm sewers on a system-wide or jurisdiction-wide basis as determined by the Director under A.A.C. R18-9-C902(A)(1)(g)(i) through (iv). [A.A.C. R18-9-A901(23)]. This also includes similar systems owned or operated by separate storm sewer municipal jurisdictions not required to obtain stormwater discharge authorization.
- 26. New Permittees** means Small MS4 operators who did not have permit coverage under ADEQ’s 2002 Small MS4 General Permit.
- 27. Not-Attaining** means a surface water is assessed as impaired, but is not placed on the 303(d) List because:
- A TMDL is prepared and implemented for the surface water;
  - An action, which meets the requirements of R18-11-604(D)(2)(h), is occurring and is expected to bring the surface water to attaining before the next 303(d) List submission; or
  - The impairment of the surface water is due to pollution but not a pollutant, for which a TMDL load allocation cannot be developed.
- 28. Non-traditional MS4** means systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings. 40 CFR 122.26(a)(16)(iii).
- 29. Notice of Intent (NOI)** – the application to operate under this general permit.
- 30. Notice of Termination (NOT)** – the application to terminate coverage under this general permit.
- 31. Outfall** – means a *point source* as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two (2) municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.
- 32. Outstanding Arizona Water (OAW)** – a surface water that has been designated by ADEQ as an outstanding state resource under A.A.C. R18-11-112.
- 33. Owner or operator** means the owner or operator of any “facility or activity” subject to regulation under the NPDES program.
- 34. Perennial water** – a surface water that flows continuously throughout the year (A.A.C. R18-11-101(30)).
- 35. Permittee** – refers to any person (defined below) authorized by this NPDES permit to discharge to Waters of the United States.
- 36. Person** – an individual, employee, officer, managing body, trust, firm, joint stock company, consortium, public or private corporation, including a government corporation, partnership, association or state, a political subdivision of this state, a commission, the United States government or any federal facility, interstate body, or other entity.
- 37. Point source** – any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.

- 38. Pollutant** – sediment, fluids, contaminants, toxic wastes, toxic pollutants, dredged spoil, solid waste, substances and chemicals, pesticides, herbicides, fertilizers and other agricultural chemicals, incinerator residue, sewage, garbage, sewage sludge, munitions, petroleum products, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt (e.g., overburden material), and mining, industrial, municipal and agricultural wastes or any other liquid, solid, gaseous or hazardous substances. [A.R.S. § 49-201(29)]
- 39. Receiving water** – as used in this permit means “Water of the United States” as defined in 40 CFR §122.2 that receives discharges from the MS4.
- 40. Satellite Installation** - means facilities that are not subject to separate AZPDES permitting, are non-contiguous with the primary facility, and meet the following criteria: a) located in an urbanized area, and b) have the potential to discharge pollutants. Examples include golf courses, parks and recreation areas, and vehicle and equipment maintenance facilities.
- 41. Stormwater** – stormwater runoff, snow melt runoff, and surface runoff and drainage. See 40 CFR 122.26(b)(13).
- 42. Stormwater Discharge Associated with Construction Activity** – a discharge of pollutants in stormwater runoff from areas where soil disturbing activities (e.g., clearing, grading, or excavating), construction materials, or equipment storage or maintenance (e.g., fill piles, borrow areas, concrete truck washout, fueling), or other industrial stormwater directly related to the construction process (e.g., concrete or asphalt batch plants) are located. See 40 CFR 122.26(b)(14)(x) and 40 CFR 122.26(b)(15).
- 43. Stormwater Discharge Associated with Industrial Activity** means the discharge from any conveyance which is used for collecting and conveying stormwater and which is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant (See 40 CFR §122.26(b)(14) for specifics of this definition).
- 44. Stormwater Management Program (SWMP)** means a comprehensive program to manage the quality of stormwater discharged from the municipal separate storm sewer system. For the purposes of this permit, the Stormwater Management Program is considered a single document, but may actually consist of separate programs (e.g. "chapters") for each permittee.
- 45. Stormwater Pollution Prevention Plan (SWPPP)** – a site-specific, written document that, among other things: (1) identifies potential sources of stormwater pollution at the location of the construction activity; (2) describes control measures to reduce or eliminate pollutants in stormwater discharges from the construction activity; and (3) identifies procedures the operator will implement to comply with the terms and conditions of this general permit.
- 46. Surface Water** – as used in this permit means “Water of the United States” as defined in 40 CFR §122.2.
- 47. Total Maximum Daily Load (TMDL)** – an estimation of the total amount of a pollutant from all sources that may be added to a water while still allowing the water to achieve and maintain applicable surface water quality standards. Each total maximum daily load shall include allocations for sources that contribute the pollutant to the water, as required by 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. [A.R.S. § 49-231(4)]
- 48. Turbidity** – a condition of water quality characterized by the presence of suspended solids and/or organic material; expressed as nephelometric turbidity units (NTU).

- 49. Waste Load Allocation (WLA)** – The maximum load of pollutants each discharger of waste is allowed to release into a particular waterway. Discharge limits are usually required for each specific water quality criterion being, or expected to be, violated. WLAs constitute a type of water quality-based effluent limitation. (See 40 C.F.R. § 130.2(h))
- 50. Waters of the United States (U.S.)** – defined in 40 CFR 122.2.
- 51. Wetland** – an area that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions. A wetland includes a swamp, marsh, bog, cienega, tinaja, and similar areas. [A.A.C. R18-11-101(49)]