Glendale
ARIZONA

CITY OF GLENDALE
STORMWATER MANAGEMENT PROGRAM
AZPDES PERMIT #AZS000019

FINAL | September 2024

City of Glendale
Stormwater Management Program

Final | September 2024

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Acronyms

AAC	Arizona Administrative Code
ACDC	Arizona Canal Diversion Channel
ADEQ	Arizona Department of Environmental Quality
ADHS	Arizona Department of Health Services
ADOT	Arizona Department of Transportation
ARS	Arizona Revised Statutes
AZPDES	Arizona Pollutant Discharge Elimination System
BHOC	Bethany Home Outfall Channel
BMP	Best Management Practice
CWA	Clean Water Act
DMR	Discharge Monitoring Report
EDW	Effluent Dependent Water
EPA	Environmental Protection Agency
ER	Environmental Resources (Division of the City of Glendale)
GIS	Geographic Information System
IDDE	Illicit Discharge Detection and Elimination
MPA	Municipal Planning Area
MS4	Municipal Separate Storm Sewer System
NODI	No Discharge
NPDES	National Pollutant Discharge Elimination System
PSWL	Protected Surface Waters List
ROW	Right-of-Way
SOP	Standard Operating Procedure
SRP	Salt River Project
STORM	Stormwater Outreach for Regional Municipalities
SWMP	Stormwater Management Program
SWPPP	Stormwater Pollution Prevention Plan
SWQS	Surface Water Quality Standard
WOTUS	Water of the United States

CITY OF GLENDALE'S STORMWATER MANAGEMENT PROGRAM

The City of Glendale (referred to as City throughout this document) is a leader in protecting the environment and implementing sustainability programs, such as the City's stormwater management program. Through the City's stormwater management program, the City strives to prevent pollution to the municipally-owned separate storm sewer system. It is "separate" in that the stormwater conveyance system is not connected to the sanitary sewer system and therefore, not connected to a treatment plant. As shown in Figure 1, stormwater that does not soak into the ground or evaporate discharges to washes or rivers without treatment.

Figure 1 Separate Storm Sewer System

Glendale maintains a Stormwater Management Program (SWMP) that is designed to reduce pollutant discharges to and from the City's municipal separate storm sewer system (MS4). The SWMP contains and describes policies, programs, and practices used by the City to help protect the quality of stormwater in an urban environment. Federal and state laws and regulations require that the City obtain a MS4 permit and implement a SWMP that is consistent with the permit.

The SWMP describes Glendale's:

- Physical setting, including location, climate, and hydrology;
- Public education and outreach programs;
- Public involvement and participation programs;
- Illicit discharge detection and elimination programs;
- Municipal facilities pollution prevention and good housekeeping practices;
- Industrial and commercial facilities inspection programs (non-municipally owned);
- Construction sites;
- Post-construction;
- Stormwater monitoring; and
- Reporting.

The SWMP is reviewed annually and modified or revised as needed. The current SWMP and latest annual report are posted to the City's website:

https://www.glendaleaz.com/live/city_services/environmental_protection

SWMP CERTIFICATION STATEMENT

The SWMP must be signed and certified by either a principle executive officer or ranking elected official; or by a "duly authorized representative" of that person in accordance with Section 7.2 of the permit.

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.

Name	Date
Megan Sheldon	9/30/2024

Megan Sheldon
Deputy Director, Water Services

1.0 Introduction

The City of Glendale has developed this Stormwater Management Program (SWMP) in accordance with the Municipal Separate Storm Sewer System (MS4) Permit #AZS000019 (MS4 Permit), effective July 1, 2021 and modified on February 7, 2023. The SWMP is the principal document that outlines the programs the City implements to minimize pollutants in stormwater discharges. The City of Glendale is authorized to discharge stormwater from MS4 outfalls owned or operated by the City to waters on the protected surface water list, including discharges to waters of the U.S. (WOTUS) and non-WOTUS protected surface waters. Discharges to non-WOTUS protected surface waters are enforceable solely by ADEQ.

The SWMP will be updated as necessary to remain effective in reducing the discharge of pollutants to the municipal storm sewer system to the maximum extent practicable.

This SWMP describes the best management practices (BMPs) and pollutant controls established by the City to comply with the requirements of the MS4 permit. The SWMP conforms to the outline provided in the MS4 Permit and details: 1) the current status of the program with respect to the issues described in the permit, and 2) the approach and processes necessary to achieve the provisions of this permit throughout the permit term. The SWMP describes systems in place, as well as goals and timelines, to demonstrate compliance with the MS4 Permit.

1.1 Background

The Clean Water Act (CWA) establishes the regulatory framework to set water quality standards and prevent discharges of pollutants to surface waters. Under the CWA, the Environmental Protection Agency (EPA) implemented pollution control programs for industrial, municipal, and other facilities that discharge to "waters of the United States" (WOTUS). The EPA issues permits that contain requirements that must be implemented to control discharges. The EPA issues these permits under the National Pollutant Discharge Elimination System (NPDES) program.

The City received an initial MS4 Permit from the EPA on August 25, 1999. Under the 1999 permit, Glendale prepared a written SWMP and implemented programs that met the permit requirements. The 1999 permit expired on August 31, 2002, and remained administratively continued until a new permit was issued in August 2010.

In December 2002, EPA granted permitting authority to the Arizona Department of Environmental Quality (ADEQ). In Arizona, the program is administered under the Arizona Pollutant Discharge Elimination System (AZPDES). ADEQ issued the new MS4 AZPDES permit to the City on August 27, 2010. The 2010 permit differed from the 1999 permit in format, level of detail, and stringency. The 2010 permit expired on August 26, 2015, and was administratively continued by ADEQ until a new permit was issued in January 2021.

1.1.1 Permit Issued to the City in 2021

On January 20, 2021, the City of Glendale received a new AZPDES permit for discharges to waters of the United States (WOTUS). This permit became effective July 1, 2021. However, ADEQ was in the process of implementing a state-specific surface water protection program. House Bill 2691, approved by the Governor on May 5, 2021, amended Arizona Revised Statutes

(ARS) §49-201 and §49-221 to include non-WOTUS protected surface waters. This legislation established a state-specific surface water protection program and required ADEQ to publish a Protected Surface Waters List (PSWL). There are three types of waters on the PSWL:

- **WOTUS Protected Surface Waters** – If a water meets the federal Clean Water Act definition of a WOTUS, it is automatically on the PSWL and regulated as a federally protected water.
- **Non-WOTUS Protected Surface Waters** – Waters deemed not to be a WOTUS under the current federal definition, may be regulated through the state's Surface Water Protection Program if that water meets the definition of a state protected surface water in ARS §49-221(G).
- **Historically Regulated as WOTUS and in Need of Confirmation** – Waters that were historically regulated as WOTUS will continue to be regulated as WOTUS unless ADEQ makes a determination that they are non-WOTUS.

The draft PSWL was published in October 2021. The final PSWL was published in the Arizona Administrative Register on January 27, 2023, and became effective on February 20, 2023.

1.1.2 2022 Permit Modification

In August 2021, ADEQ updated the City's MS4 Permit to include discharges to state-listed Protected Surface Waters. The Public Notice was published on September 2, 2021.

On May 13, 2022, the City received the final modified permit for discharges to protected surface waters. The updated permit includes the state requirements for discharges to non-WOTUS protected surface waters, which are enforceable solely by ADEQ.

1.1.3 2023 Permit Modification

The final modified permit received by the City in May 2022 contained erroneous language in Standard Permit Condition 7.12. The permit was modified to correct the permit language and the Public Notice was published on October 24, 2022.

On February 17, 2023, the City received the final modified permit with an effective date of February 7, 2023. The City is currently operating under this version of the permit.

1.2 Legal Authority

The City continues to develop, maintain, and enforce adequate legal authority to control the discharge of pollutants into and from the MS4 through a combination of ordinances, City Code, permits, contracts or similar means.

1.2.1 City Code

The City has existing ordinances to prevent stormwater pollution. These ordinances are reviewed on a regular basis and modified or revised as needed. As of September 2024, current ordinances include but are not limited to:

- City Code Chapter 17 – Floodplain Management;
- City Code Chapter 18 – Garbage and Trash;
- City Code Chapter 18.5 – Grading and Drainage;
- City Code Chapter 25 – Nuisances; and
- City Code Chapter 33, Article VI – Storm Water Pollution Control.

Changes to City Code can occur anytime as approved by City Council. Therefore, a copy of the stormwater-related ordinances is not attached to the SWMP. The City Code can be accessed via the City's website or at: https://library.municode.com/az/glendale/codes/code_of_ordinances.

The current MS4 permit (effective July 1, 2021, with modification effective February 7, 2023) requires the City to review and, if necessary, revise and/or adopt relevant rules, ordinances, procedures, policies, practices, or other regulatory mechanisms to the extent allowable under state law that provides the permittee adequate legal authority to control the discharge of pollutants into and from the MS4, and meet the requirements of the permit. No revisions to stormwater-related City Code provisions are proposed at this time.

1.2.2 Design and Construction Standards

The City adopted the 2015 Engineering Design and Construction Standards manual which includes technical design requirements for storm drains (Section 5.2 of the manual) and retention basins (Section 5.3 of the manual). The manual is available on the City's website at:

https://www.glendaleaz.com/cms/One.aspx?portalId=15209085&pageId=15331937

2.0 Physical Setting

The boundary of the MS4 differs from the City's municipal planning area (MPA). Although the limits of the MPA extend as far west as Perryville Road (via "strip annexation"), for the purposes of the MS4 permit, the City's Stormwater Management Program is implemented in the areas where the City has jurisdiction over stormwater. Attachment A includes a map showing Glendale's municipal planning area. Since additional areas may be annexed into the City, the latest information is available at: https://gismaps.glendaleaz.com/basicviewer/index.html.

The land located west of the Agua Fria River includes un-annexed county land, Luke Air Force Base (a small MS4 operating under its own MS4 general permit), and several parcels of annexed land. Parcels annexed into the City in this area consist of:

- Undeveloped parcels – no MS4 components for the City to operate and maintain.
- Developed parcels – retain stormwater from the 100-year, 2-hour storm event, and receive stormwater from the half-street fronting the development.

2.1 Location

The City is located in Maricopa County, in the northwest region of the Phoenix metropolitan area. The current Municipal Planning Area (MPA) for the City of Glendale encompasses approximately 91.8 square miles. Major roadways within the City include Grand Avenue (State Highway 60), the Agua Fria Freeway (Loop 101), Loop 303, and a network of public arterial, collector, and local streets.

The City lies within the Basin and Range and Central Highlands physiographic provinces, generally described as northwesterly trending alluvial valleys surrounded by fault-block mountain ranges. Mountainous areas exist to the west and north of the City. Elevations within the current City boundary basin floor areas (i.e., not including mountainous areas) range from approximately 1,100 to 1,400 feet above mean sea level, gently sloping and generally draining to the southwest.

2.2 Climate

Glendale's climate is semi-arid and characterized by warm summers and mild winters. Temperatures range from the low to mid-thirty degrees Fahrenheit (°F) during winter nights and can exceed 110 °F during the summer daylight hours. Precipitation averages approximately 8 inches per year, with rainfall occurring primarily during two separate rainfall seasons. The first rainfall season occurs during the winter months from November to March, when the area experiences occasional storms originating from the Pacific Ocean. The second rainfall season occurs during July and August, when moisture originating in the Gulf of Mexico, the Pacific Ocean off the west coast of Mexico, and in the Gulf of California form thunderstorms that sweep through central Arizona.

2.3 Hydrology and Receiving Waters

Stormwater runoff within city boundaries is largely transported through streets, open channels, stormwater pipes, and other conveyances to city retention basins, parks, washes, and nearby ephemeral streams and/or rivers.

The City is primarily located within the Middle Gila Watershed as defined by ADEQ. Within this watershed, ADEQ has identified non-WOTUS protected surface waters (Table A of Arizona Administrative Code [AAC] R18-11-216), WOTUS protected surface waters (Table B of AAC R18-11-216), and waters that are "historically regulated as WOTUS and in need of confirmation" (Table C of AAC R18-11-216). A copy of these tables is provided in Attachment B.

The New River and the Agua Fria River are ephemeral rivers listed in Table C of AAC R18-11-216[1]. Phoenix-area canals operated by the Salt River Project are also listed in Table C of AAC R18-11-216[1]. Attachment B includes a snapshot from ADEQ's eMaps GIS showing the protected surface waters within Glendale's city limits.

According to Arizona's 2024 List of Impaired Waters, neither ADEQ nor EPA have listed any of the waters of the U.S. within Glendale's municipal planning area as impaired waters under the Clean Water Act Section 303(d).

Additional information on surface waters located within the municipal planning area is provided below.

2.3.1 New River

The New River originates north-northwest of Glendale, in Yavapai County. Flows observed in the river are usually minimal, consisting of stormwater runoff directed to the river from upstream locations. The New River defines the northwest boundary of the City and, further south, bisects the western portion of the City for approximately 2 miles. The New River is listed in Table C of AAC R18-11-216. The segments of the New River within Glendale city limits are ephemeral and are designated to meet Aquatic and Wildlife - ephemeral, partial body contact and agricultural livestock watering standards.

2.3.2 Agua Fria River

The Agua Fria River originates in the Bradshaw Mountains and surrounding foothills in Yavapai County. Flows observed in the river are usually minimal, consisting of stormwater runoff directed to the river from upstream locations and discharges from wastewater treatment plants (such as the City of El Mirage's wastewater treatment plant). The Agua Fria River bisects the western portion of the City for approximately 2 ½ miles before converging with the New River along the southwestern boundary of the City. The Agua Fria River is listed in Table C of AAC R18-

[1] The City does not have authority to definitively state whether or not a water body is considered to be a Water of the United States (WOTUS). To comply with the permit, the City has identified rivers, canals, lakes, and named washes that are included on the Protected Surface Waters List and/or in Arizona Administrative Code Title 18, Chapter 11, Article 2, Tables A through C, as well as any major tributaries to such surface waters.

11-216. The segment of the Agua Fria River within Glendale city limits is ephemeral and is designated to meet the Aquatic and Wildlife - ephemeral and partial body contact standards.

2.3.3 Skunk Creek

The Skunk Creek bisects the northwest portion of the City for approximately 3 miles. Skunk Creek trends northeast to southwest and functions as a tributary to New River. Flow through Skunk Creek is composed of seasonal stormwater runoff. Skunk Creek is not currently included on the Protected Surface Water List; however, it is a tributary to the New River which is listed in Table C of AAC R18-11-216. Therefore, for the purposes of the SWMP, the City considers the designated uses for the New River to apply to Skunk Creek.

2.3.4 Unnamed Wash (Luke Air Force Base Wastewater Treatment Plant Outfall to Agua Fria River)

An unnamed wash from the Luke Air Force Base Wastewater Treatment Plant outfall to the Agua Fria River was an effluent-dependent water (EDW) with designated uses of Aquatic and Wildlife – EDW and partial body contact. The wastewater treatment plant discharged treated wastewater (effluent) to the unnamed wash under a site-specific AZPDES permit. However, the Luke Air Force Base Wastewater Treatment Plant ceased operations in mid-2022 which eliminates discharges to this effluent-dependent water.

2.3.5 Phoenix Area Canals

The Salt River Project (SRP) owns and operates canals and laterals within the City of Glendale. The SRP canals include the Arizona Canal, which delivers water for various agricultural, irrigation, and municipal uses, including to municipal water treatment plants. The Arizona Canal is designated to meet Domestic Water Source, Agricultural Irrigation, and Agricultural Livestock Watering standards. Stormwater runoff in the vicinity of the Arizona Canal is intercepted by the Arizona Canal Diversion Channel (ACDC).

The SRP canals also include the Grand Canal, which delivers water for various agricultural, irrigation, and municipal uses. The Grand Canal is designated to meet Domestic Water Source, Agricultural Irrigation, and Agricultural Livestock Watering standards. Stormwater runoff in the vicinity of the Grand Canal is intercepted by the Grand Canal Diversion Channel (also known as the Bethany Home Outfall Channel).

2.3.6 Bonsall Park Lake

Bonsall Park, located at 59th Avenue and Bethany Home Road, is a 10-acre park with a man-made urban lake located on the south side of the park. The Bonsall Park Lake participates in the Arizona Game and Fish Department's Community Fishing Program. The lake is supplied by raw water from the Salt River Project; there is no discharge from the lake.

ADEQ has designated the lake as a "non-WOTUS protected surface water" (per ARS §49-221, Subsection G). Bonsall Park Lake is designated to meet Arizona standards for Aquatic and Wildlife – warmwater, partial body contact, and fish consumption standards.

2.3.7 Heroes Park Lake

Heroes Park, located at 83rd Avenue and Bethany Home Road, is an 81-acre park with a man-made urban lake located within the southwest portion of the park. The Heroes Park Lake participates in

the Arizona Game and Fish Department's Community Fishing Program. The lake is supplied by raw water from the Salt River Project via the Grand Canal.

This lake has not yet been designated in ARS §49-221, Subsection G as a "non-WOTUS protected surface water." However, for the purposes of this SWMP, the City considers the designated uses for Heroes Park Lake the same as Bonsall Park Lake (Arizona standards for Aquatic and Wildlife – warmwater, partial body contact, and fish consumption standards).

2.3.8 Other Water Courses, Conveyances, and Drainage Structures

There are several man-made conveyance systems located within City of Glendale boundaries which are owned and/or operated by other entities. These systems include the Arizona Canal Diversion Channel (ACDC), the Bethany Home Outfall Channel (BHOC), Arizona Department of Transportation (ADOT) channels, the Northern Parkway Channel, and the Dysart Drain.

- The ACDC receives stormwater from the central part of the City of Glendale, which combines with upstream stormwater flows from the City of Phoenix. The ACDC drains through the City of Peoria city limits to Skunk Creek and ultimately to the New River, both of which are tributaries to the Agua Fria River. Portions of the ACDC within the City of Glendale are maintained by the City of Glendale and the Flood Control District of Maricopa County.
- The BHOC receives stormwater from the southern portion of the City of Glendale that combines with upstream stormwater flows from the City of Phoenix. It also receives runoff from the ADOT channel along the Loop 101. The BHOC drains to the New River near its confluence with the Agua Fria River.
- An ADOT channel runs alongside the Loop 101 and receives stormwater from the northwestern portion of the City of Glendale that combines with upstream stormwater flows from the City of Peoria. The ADOT channel drains to the New River, which is a tributary to the Agua Fria River.
- An ADOT channel runs along the Loop 303. Within Glendale's MPA, stormwater that enters this channel discharges to ADOT retention basins along the Loop 303.
- The Northern Parkway Channel is located along Northern Parkway between the Loop 303 and Dysart Road. The channel consists of open channels and culverts along Northern Parkway designed to collect stormwater from the roadway and convey the water to the Dysart Drain. The Dysart Drain discharges to the Agua Fria River. Segments of Northern Parkway within the City of Glendale are under the jurisdiction of ADOT (near Loop 303), the City of Glendale, and Maricopa County Department of Transportation.
- The Dysart Drain conveys stormwater runoff from north of Luke Air Force Base and directs it to the Agua Fria River. The channel is located approximately one-half mile north of Glendale Ave.

3.0 Program Implementation

The City continues to implement and maintain a stormwater management program designed to reduce the discharge of pollutants from the MS4 to the maximum extent practicable to protect water quality and satisfy applicable surface water quality standards (SWQS). The City reviews the SWMP every year to modify or, as needed, revise any elements necessary to protect water quality and reduce the discharge of pollutants.

The City is committed to providing high-quality services in the most efficient and effective manner. Stormwater management is a complex challenge requiring effective planning, engineering, inspections, enforcement, and facility maintenance functions. As such, the City's stormwater management program involves several departments and divisions to perform stormwater management responsibilities.

The City utilizes a stormwater committee consisting of staff representing their respective departments/divisions. The committee meets on a regular basis to discuss the stormwater program and monitor implementation of best practices associated with MS4 permit requirements. An overview of the departments/divisions responsible for implementation of the stormwater management program is summarized in Table 1 and shown in an organizational chart in Attachment C.

Table 1 Overview of Stormwater Management Responsibilities for MS4 Permit

Department or Division	Stormwater Responsibilities
Environmental Resources Division of the Water Services Department	• MS4 permit negotiations and planning • MS4 permit compliance oversight and coordination • Public education and outreach • Municipal facility inspections • Commercial/Industrial inspection program, including illicit discharge investigations and enforcement • Review of laboratory data for stormwater samples and quality assurance of sample collection and analysis • Oversight of "found waste" program (abandonment of hazardous waste on city property) • Reporting to ADEQ (annual report, discharge monitoring reports, etc.)
Stormwater Maintenance Division of the Water Services Department	• Maintain (inspect and clean) underground stormwater pipe network • Outfall inspections, including dry weather screening/ sampling • Public education and outreach • Illicit discharge investigations • Contract management for drywell maintenance and wet weather sampling

Department or Division	Stormwater Responsibilities
Development Services Department	• Maintain records and update geographic information system • Receive development plans and coordinate reviews
Engineering Department	• Flood control and drainage master plan • Review development plans, including grading and drainage plans • Review Stormwater Pollution Prevention Plans for construction sites • Inspect construction sites, including illicit discharge investigations and BMP enforcement • Capital Improvement Plan program • Post-construction warranty inspections
Code Compliance	• City Code inspection and enforcement program • Public education and outreach • Illicit discharge investigation and enforcement
Solid Waste Division of the Field Operations Department	• Street sweeping • Household Hazardous Waste collection events
Transportation Department	• Maintain streets and right-of-way, including associated scuppers, retention basins, swales, channels, etc.
Public Facilities, Recreation and Special Events	• Maintain parks, including associated scuppers, retention basins, swales, channels, etc.
Fire Department	• Response to spills of hazardous materials • Fire Marshal inspection of commercial/industrial facilities storing/using hazardous materials

Stormwater is regulated at the federal, state, and local levels. The City's legal authority pertaining to the management of stormwater is the City Code. Refer to Section 1.2 of this SWMP for additional information on relevant sections of City Code.

The City has a Stormwater Enforcement Response Plan to guide the implementation and application of the City's stormwater authority. A copy of the most recent Stormwater Enforcement Response Plan is available on the City's website at https://www.glendaleaz.com/live/city_services/environmental_protection.

The City maintains records demonstrating compliance with the MS4 permit. These records are maintained for a minimum of three years after the permit ends.

4.0 Public Education and Outreach

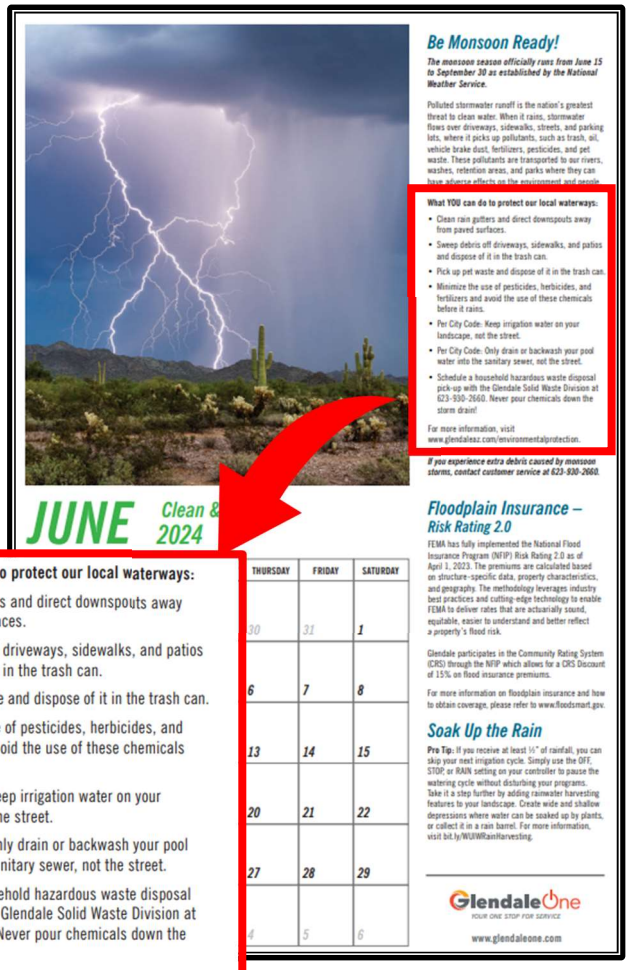
The MS4 permit requires that the City continue to implement on-going, planned outreach activities to educate the community on best management practices to reduce stormwater pollution. The community includes the general public, developers, contractors, homeowners, and others that have the potential to impact stormwater quality. Public education materials are available on the City's Environmental Protection website for residents, businesses, and construction projects.

Stormwater pollution in urban areas is largely a result of human activities. Public education and outreach are key components of Glendale's stormwater management program.

4.1 Public Outreach

The City provides stormwater education and outreach to the general public through a variety of local and regional programs. Existing outreach activities conducted by the City include, but are not limited to:

- Catch basin markers at inlets to the storm sewer system.
- Stormwater pollution prevention article(s) in the annual Clean and Green calendar, as shown in the image on the right. This annual publication is mailed to City residents that receive City water or wastewater service. It is also available on the City's website.
- The Water Services Department hosts an informational table at various events such as Council District meetings or Dog Days of Glendale.



- Glendale's Conservation and Sustainable Living Office provides classes and informational materials on low water use landscaping designs and care. Stormwater topics are integrated into these public education events as appropriate.

Regionally, the City is a member of the Stormwater Outreach for Regional Municipalities (STORM) organization. Membership in STORM allows the City to be involved with regional and metropolitan-wide messaging, education, and outreach efforts. STORM was established in 2002 to educate the public on ways to protect the quality of stormwater. STORM uses a multi-media approach to disseminate information, including radio, movie theater ads, television commercials, brochures, handouts, and a website (www.azstorm.org). This regional approach allows stormwater educational messaging to reach audiences exceeding a million people each year within the greater Phoenix area. Each fiscal year, the members of STORM choose appropriate topics to be the focus for the public education campaign and designate the types of campaign efforts for the year.

The City continues to offer education and outreach to the public utilizing several methods. The methods selected may vary based on the audience and available opportunities. Methods may include:

- Participation in STORM;
- Posting of stormwater-related topics on the City's website and social media;
- Attending city events; or
- Publications (brochures, articles in newsletters, etc.).

To meet the requirements in Section 4.2 of the permit, the City provides public education and outreach to at least one target group and focuses its efforts on conveying relevant messages using one or more appropriate topic(s) listed in the permit during each year of the permit term. Although the City's outreach strategy may change, Table 2 lists the proposed groups, outreach method, and topics for the duration of the permit term.

Table 2 Public Outreach Strategy

Period	Proposed Group*	Proposed Method and Topic*
Permit Year 1 – July 2021-June 2022	HOAs	Flyer/brochure on maintaining stormwater structures
Permit Year 2 – July 2022-June 2023	General Public	Flyer/brochure and social media posts on cleaning-up and properly disposing of pet waste
Permit Year 3 – July 2023-June 2024	Residential Community	Social media and news ticker (ABC15): illicit discharges and illegal dumping, proper management of nonstormwater discharges
Permit Year 4 – July 2024-June 2025	General Public	Flyer/brochure on proper management and disposal of used oil; pool draining door tag

Period	Proposed Group*	Proposed Method and Topic*
Permit Year 5 – July 2025-June 2026	Schools and HOAs	Workshop on post-construction ordinances and long-term maintenance requirements for permanent stormwater controls

**Proposed group, method, and/or topic is subject to change; outreach strategy will be reviewed each year and updated as needed.*

4.2 Business Sector Outreach

The City continues to offer education and outreach to businesses utilizing several methods. Ongoing outreach efforts include:

- For construction projects, the Development Services Department and/or Engineering Department educate developers and contractors on the City's stormwater management requirements during the plan review and permit application process.
- For commercial and industrial facilities, Pretreatment inspectors educate facility operators on the City's stormwater management requirements.

Outreach materials will be reviewed and updated prior to use, or new materials will be developed as needed. When appropriate, the City may utilize the coordinated efforts of the STORM organization to provide business sector outreach.

To meet the requirements in Section 4.2 of the permit, the City provides business sector education and outreach to at least one target group and focuses its efforts on conveying relevant messages using one or more appropriate topic(s) listed in the permit during each year of the permit term. Although the City's outreach strategy may change, Table 3 lists the proposed groups, outreach methods, and topics for the duration of the permit term.

Table 3 Business Sector Outreach Strategy

Period	Proposed Sector*	Proposed Method and Topic*
Permit Year 1 – July 2021-June 2022	Property Management	Flyer/brochure on maintaining stormwater structures
Permit Year 2 – July 2022-June 2023	Construction Sites	Flyer/brochure on municipal stormwater requirements and proper management of non-stormwater discharges
Permit Year 3 – July 2023-June 2024	Commercial Vehicle Washes	Flyer on stormwater pollution prevention
Permit Year 4 – July 2024-June 2025	Vehicle/Equipment Repair	Flyer/brochure on proper management and disposal of used oil
Permit Year 5 – July 2025-June 2026	Development Community	Workshop on planning ordinances and grading and drainage design standards

**Proposed sector, method, and/or topic is subject to change; outreach strategy will be reviewed each year and updated as needed.*

4.3 Evaluation

The City will evaluate and measure the understanding and adoption of the targeted behaviors for at least one target audience in at least one subject area. The City may meet this permit requirement individually or as a member of a regional group.

No later than the end of year four (July 2024-June 2025) of the permit term, the City will use the results of the evaluation to direct future education and outreach. The fourth-year annual report will include a summary of the evaluation and any changes adopted in response to results of the evaluation.

5.0 Public Involvement and Participation

Section 4.3 of the MS4 permit requires public involvement and participation in the City's stormwater management program. The purpose is to engage the public to effectively message stormwater pollution prevention, undertake group activities that highlight stormwater pollution prevention, and/or restore and protect channels and washes through volunteer community actions.

One way the City promotes public involvement and participation is by posting the SWMP on the City's website along with a copy of the most recent stormwater annual report. These documents are available at: https://www.glendaleaz.com/live/city_services/environmental_protection

As required in Section 4.3.D. of the MS4 permit, the current SWMP and annual report will be posted on the City's website by October 30 of each year.

5.1 Annual Stormwater Management Program Workshop

The City will host an annual public workshop to inform and engage interested members of the public with the development and implementation of all parts of the City's SWMP. The City's strategy for implementing an annual workshop, along with proposed topics to be covered, is summarized in Table 4.

Table 4 Annual SWMP Workshops

Period	Proposed Timing*	Proposed Method and Topic*
Permit Year 1 – July 2021-June 2022	April 2022	Facebook Live (with recording): General overview of the SWMP; Public Reporting System
Permit Year 2 – July 2022-June 2023	April 2023	In-Person Presentation: Stormwater Pollution Prevention at Glendale Water Awareness Day
Permit Year 3 – July 2023-June 2024	April 2024	In-Person Presentation: Stormwater Basics and Passive Rainwater Harvesting
Permit Year 4 – July 2024-June 2025	April 2025	In-Person Workshop(s): Commercial/Industrial Facilities
Permit Year 5 – July 2025-June 2026	April 2026	In-Person Workshop(s): Construction/Post-Construction

**Proposed timing, method, and/or topic are subject to change; the strategy for the annual workshops will be reviewed each year and updated as needed.*

Each year, as part of the review of the SWMP, the City will review recent illicit discharge records, findings from recent inspections, and other information to determine relevant topics for future SWMP workshops.

5.2 Public Opportunities

The City creates a variety of opportunities for citizens to participate in the implementation of stormwater controls including, but not limited to:

- Skunk Creek or New River clean-ups;
- Adopt-a-Street or Adopt-a-Park for litter control; and
- Other volunteer events.

5.2.1 Household Hazardous Waste Collection and Disposal Events

The City's household hazardous waste collection program allows residents to dispose of household hazardous wastes at scheduled events. There are two collection events per year – one in the spring and one in the fall.

The events are advertised to residents prior to the event and residents schedule appointments with the City for pickup service. Household hazardous wastes are removed by a licensed contractor and properly disposed or recycled. Information regarding the household hazardous waste collection program is also available on the City's website.

The household hazardous waste collection events have been very successful, providing residents a convenient, safe, and environmentally protective method to dispose of their hazardous wastes. Paints and stains, antifreeze and other automotive fluids, pesticides, motor oil and filters, batteries, pool chemicals, and cleaners from households are accepted. Items that are not accepted include explosives, radioactive materials, tires, drums, ammunition, medical wastes, and business-generated wastes.

5.2.2 Public Spill Reporting System

Glendale encourages the public to report on City Code violations, which includes illicit discharges to the stormwater system. There are several ways by which the public and businesses can contact the City to initiate action or inquiry pertaining to stormwater, including:

- Report illegal discharges by accessing the City's Environmental Protection website (https://www.glendaleaz.com/live/city_services/environmental_protection), then selecting the link under Stormwater. By completing the form at this link, the information is emailed to multiple Environmental Resources staff.
- Submit a request for service using "Glendale One, Your One Stop Shop For Service" through www.glendaleone.com. However, this service request system is not intended to be used for illicit discharges requiring immediate response. GlendaleOne provides access to non-emergency services and information 24/7.
- Contacting city departments directly. Residents may contact departments directly to report issues or request services. In these instances, each department is responsible to respond and track complaints as required by the individual department's protocols.
- Contacting the Fire Department's hazardous materials hotline (623) 930-4400. Callers who report a complaint to this hotline are transferred to the Fire Administration, who routes the complaint to the appropriate department.

The MS4 Permit requires the City to report spills, dumping, discharges and related stormwater issues to ADEQ. Each department responsible for investigating and resolving the stormwater-related reports maintains associated records. The Environmental Resources Division and Stormwater Maintenance Division within the Water Services Department investigate stormwater complaints related to businesses and the storm drain system, respectively. The Engineering Department investigates complaints related to construction sites. The Code Compliance Department investigates residential and other general complaints. Complaints to these departments are documented and included in the annual report.

6.0 Illicit Discharge Detection and Elimination (IDDE)

The City is required to continually implement a program to detect, investigate, and eliminate non-stormwater discharges that contribute pollutants to the storm sewer system. These discharges include dumping and spills into the storm sewer system. Illicit discharges mean any discharge to the MS4 that is not composed entirely of stormwater except discharges pursuant to a NPDES or AZPDES permit, discharges resulting from firefighting activities, and allowable non-stormwater discharges listed in Section 6.1 of this SWMP.

The City developed a comprehensive stormwater pollution control ordinance, which was adopted by Council on October 11, 2011. The entire City Code, including the stormwater ordinance, is available on the City's website at www.glendaleaz.com. The stormwater pollution control ordinance can be found in Chapter 33, Article VI.

The City prohibits the "the discharge of water from any swimming pool, architectural pool or spa into any public street, alleyway or rights-of-way" (City Code Section 25-24(d)). To educate households on proper disposal of pool water, Glendale has developed guidance which is available on the City's website at: https://cdnsm5-hosted.civiclive.com/UserFiles/Servers/Server_15209001/File/Departments/Water%20Services/Water%20Conservation/Pool%20Brochure%20Update%20-%20New%20Logo.pdf

The City's IDDE program is designed to prevent, detect, characterize, and eliminate illicit discharges into the MS4, including procedures to address pollutants entering the MS4 from an interconnected MS4. The IDDE program includes MS4 mapping, employee training, inspections and screening, investigations of illicit discharges, compliance activities (elimination, enforcement), and recordkeeping.

6.1 Allowable Non-Stormwater Discharges

Under City Code, non-stormwater discharges to the storm drain system are prohibited unless the discharge is authorized under a separate permit issued by EPA or ADEQ, or is in a category of allowable non-stormwater discharges listed under City Code, Section 33-300(c)(2) or in the permit. Following are the types of discharges allowed under City Code:

- Water line flushing and other discharges from drinking water sources;
- Landscape irrigation and lawn watering;
- Irrigation water;
- Diverted stream flow;
- Rising groundwater;
- Uncontaminated groundwater infiltration;
- Uncontaminated pumped groundwater;
- Uncontaminated foundation and footing drains;
- Uncontaminated water from crawl space pumps;
- Air conditioning condensation and evaporative cooler run-off;

- Natural springs;
- Individual residential car washing;
- Flows from riparian habitats and wetlands, as those areas are designated under applicable federal and state laws;
- Flows resulting from firefighting activities;
- Discharges from potable water sources; or
- Any other activity that is exempted under the City's NPDES or AZPDES stormwater permit.
    - The MS4 permit includes "street wash water."

These types of non-stormwater discharges are not required to be addressed under 40 CFR 122.26(d)(2)(iv)(B)(1) unless they are identified as a significant source of pollutants. The City has not determined that these discharges are a significant source of pollutants in the City. In the event it is determined that a type of discharge listed above is a significant source of pollutants, written notification will be provided by the City to prohibit such discharge.

To facilitate compliance with non-stormwater discharges, the City provides guidance to households and businesses on proper disposal options. Options may include discharging to the sanitary sewer cleanout, using the water for irrigation, or contacting a non-hazardous liquid waste hauler. Commercial or industrial discharges to the sanitary sewer must meet the City's pretreatment requirements contained in Chapter 33, and may require a permit and laboratory analysis prior to discharge in the sanitary sewer. Information regarding the Glendale Pretreatment Program is available at https://www.glendaleaz.com/live/city_services/water_services

6.2 Inventory and Mapping of MS4

The City maintains comprehensive maps of the MS4 in a geographic information system (GIS). Included in the GIS are stormwater channels, catch basins, manholes, detention/retention basins, scuppers, drywells, outfalls, and underground storm drain lines. The GIS is used to identify areas where stormwater from Glendale's MS4 is discharged to other MS4s (such as to the ADOT channel along the Loop 101). The GIS is updated when new information becomes available (such as from drawings for as-builts) or when corrections are needed.

Appropriate staff have access to the GIS electronically, either in the office or while working in the field. Staff can also print maps as needed. Upon request by ADEQ, the City can provide a demonstration of the storm sewer system layer in GIS.

6.2.1 Major Outfalls and Priority Major Outfalls

The City's major outfalls are identified in GIS and have been given a unique asset identification number. The drainage areas contributing to these major outfalls can be determined using the surficial flow paths and grade breaks shown in GIS.

The City designates a major outfall as "priority" based on a history of illicit discharges or other information that indicates the major outfall requires more frequent inspection. Due to the dynamic nature of the "priority" designation, this inventory is maintained separately from GIS. The inventory of priority major outfalls is reviewed annually and updated when needed.

6.2.2 Protected Surface Waters

Surface waters (including non-WOTUS protected surface waters and WOTUS) within Glendale's city limits receiving discharges from the MS4 are shown in GIS. These surface waters include Skunk Creek, New River, and the Agua Fria River. Bonsall Park Lake, Heroes Park Lake, the Arizona Canal, and the Grand Canal are also shown in GIS.

6.3 Employee Training

Training by the City currently consists of in-person classroom training, videos or computer modules, field training, and using outside vendors certified in stormwater training.

The training program addresses the importance of protecting water quality, pollutants and sources of pollutants expected at the facilities, operation and maintenance standards, inspection procedures, selecting appropriate Best Management Practices (BMPs), ways to perform job activities to prevent or minimize impacts to water quality, and procedures on reporting water quality concerns. The City provides additional training as needed due to staffing changes, procedural changes, regulatory changes, etc. Training records are maintained by the individual department and submitted to Environmental Resources for the annual report.

As summarized in Table 5, there are two types of IDDE training provided by the City as required by the MS4 permit.

Table 5 IDDE Training for City Employees

Training	Audience	Frequency
Stormwater Pollution Awareness	Select groups*	By 6/30/2022 and every two years thereafter
IDDE*	New employees with direct stormwater responsibilities	One time per year
	Existing employees with direct stormwater responsibilities	Every two years

**In April 2024, Environmental Resources staff hosted a Stormwater Symposium consisting of training on four topics – Stormwater Basics, Infrastructure Inspection, Illicit Discharges, and Municipal/Commercial/Industrial Facility Inspections. Staff unable to attend the in-person training could complete the recording of each presentation. Total attendance for the four trainings was 94; this total includes new and existing employees.*

A key component of the IDDE program is training staff to identify illicit discharges and respond accordingly. In many cases, the response for City staff is to report their observations to the appropriate division/department. The City of Glendale created a flowchart to guide staff to the responsible division/department. A copy of this flowchart is provided in Attachment C.

6.4 Inspections and Screening

The City continues to maintain and implement an ongoing program designed to identify non-stormwater discharges into the MS4. The City has developed inspection and screening procedures based on the *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments. Center for Watershed Protection, October 2004*, and other guidance documents.

Select field personnel are trained to identify potential illicit discharges during their normal duties. Illicit discharges may also be reported by the public and are routed to the appropriate department for response.

6.4.1 "Priority" Major Outfalls

The City inspects "priority" major outfalls or "priority" field screening points (if applicable) once each year during the permit term. "Priority" major outfalls include:

- All major outfalls and/or field screening points that discharge to an impaired or outstanding Arizona water or other perennial water;
- All major outfalls and/or field screening points that have been a source of illicit discharge in the past five years (unless the sources have been eliminated, or have been shown not to be a major source of pollutants); and
- All major outfalls and/or field screening points identified as priority by the City for illicit discharges or other non-stormwater flows.

There is no impaired or outstanding Arizona waters or other perennial waters to which the Glendale MS4 discharges, so the "priority" major outfall inventory is limited to locations identified as priority by the City.

As priority major outfalls are identified by the City, they will be noted in the inventory and inspected annually per the permit requirements.

6.4.2 Major Outfalls

Throughout the year, the City performs routine visual inspections of the major outfalls for evidence of trash, illegal dumping, or significant pollutants. As required by the permit, the City inspects 20 percent of the non-priority major outfalls and/or field screening points each year of the permit term ensuring all major outfalls and/or field screening points have been inspected at least once in the five-year permit term.

The procedures for inspecting major outfalls are documented in the City's standard operating procedure PSW-01.

6.4.3 Dry Weather Field Screening

During dry weather, the City performs routine visual inspections of select major outfalls for evidence of flow, trash, suds, odors, etc. If significant flow is observed, a grab sample is collected for visual observation of color, clarity, floatables, sediments, algae, and sheen and analyzed for field parameters (pH, temperature, phenols, copper, chlorine, and detergents). Significant flow is defined as having a velocity of at least one foot per second at a depth of 2 inches or more. In most cases, water quality sampling is not conducted where there is no measurable flow.

If significant flow is observed during a dry weather field screening inspection, City staff re-inspect the major outfall within 24 hours and, if flow is still present, will re-sample.

If the City determines that the discharge does not contain significant levels of pollutants or the discharge is allowable under the City's stormwater pollution control ordinance, the City will conclude the investigation without further action. The City maintains documentation regarding the investigation and evidence supporting the conclusions of the investigation in the database.

The presence of pollutants in a non-stormwater discharge will initiate an investigation as described in Section 6.5 of this SWMP.

The procedures for conducting dry weather field screening at major outfalls are documented in the City's standard operating procedure PSW-02.

6.5 Investigations

When the City is notified or learns of a potential illicit discharge, the information is recorded and a qualified inspector is assigned to investigate. Illicit discharges that are considered an imminent threat to human health or the environment will be responded to immediately. This response may be conducted by the City's Fire Department or HazMat Team. Other less serious instances are inspected as soon as practical, typically within one business day.

When notified of a potential illicit discharge, the corresponding complaint is routed to the appropriate department for investigation. Following are examples of illicit discharge complaints received and the division/department that would typically respond to the complaint:

- Code Compliance Department – complaints regarding pool draining to right-of-way, blowing dirt/debris into the street, residents dumping chemicals/unknown materials;
- Pretreatment Division – complaints regarding commercial or industrial facilities;
- Engineering Department – complaints regarding construction sites;
- Stormwater Maintenance Division – complaints regarding storm drain infrastructure; and
- Wastewater Collections Division – complaints regarding overflows from sanitary sewer infrastructure.

The City investigates the reported illicit discharge or refers the report to the appropriate agency with authority to act. At least 90% of all reports of illicit discharges to the City's MS4 will be investigated within five business days.

The procedures for conducting IDDE investigations are documented in the City's standard operating procedure PSW-03.

6.5.1 Discharge Elimination

Using maps and knowledge of the storm sewer system, City staff attempt to identify the source(s) of the discharge. City staff conduct visual observations for illicit discharges occurring in the immediate area. City staff also use the dry weather screening results (field observations and water quality results) to find the source of the discharge.

When the City identifies the source of an illicit discharge, the City takes corrective action to eliminate the source within 60 calendar days. Sources that are fully investigated and determined not to cause or contribute to an exceedance of the SWQS are not subject to this timeframe. In this event, the City will maintain documentation of the investigation, sampling, and reasoning for the determination that such a discharge did not contain significant levels of pollution.

6.5.2 Enforcement

City Code prohibits discharges to the storm drain system unless the discharge is permitted by ADEQ or EPA or is permissible under the ordinance (an allowable non-stormwater discharge).

When applicable, enforcement actions may be taken to halt the illicit discharge. If necessary, the discharge may be referred to a Code Compliance inspector. Or, an industrial or commercial inspection may be conducted to bring the business into compliance with City Code. Inspection details are entered into the City's databases.

City Code and the City's Stormwater Enforcement Response Plan provide enforcement actions such as issuance of a verbal warning, Corrective Action Notice, or Notice of Violation. The

ordinance provides for issuance of both civil and criminal penalties (City Code Sections 33-313 through 33-316). Additionally, the City may issue a Cease-and-Desist Order for an illicit discharge that is an immediate threat to human health or the environment.

At least 80% of all cases shall be satisfactorily resolved by halting the illicit discharge within one calendar year from the original enforcement action.

6.6 Recordkeeping

The City tracks and maintains records of inspections, illicit discharge investigations, enforcement actions, and corrective actions. As part of the annual report to ADEQ, a summary of IDDE activities will be provided in tabular format with the following fields:

- City of Glendale AZPDES permit number;
- Date incident was reported or discovered;
- Date of the beginning of the City's response;
- Date of the end of the City's response;
- Whether the discharge reached a protected surface water;
- Incident location (address or approximate latitude and longitude);
- Pollutant(s);
- Source(s); and
- Correction method(s).

7.0 Municipal Facilities Pollution Prevention and Good Housekeeping

The City has developed a comprehensive inspection program for facilities owned and operated by the City. The inspection program includes inventory, prioritization, and inspection of facilities with a potential to discharge pollutants to the MS4.

Staff from Glendale's Environmental Resources Division inspect municipal facilities. The inspections may be initiated because of a complaint or may be part of the routine facility inspection program.

7.1 Employee Training

Training by the City currently consists of in-person classroom training, videos or computer modules, field training, and using outside vendors certified in stormwater training.

The training program addresses the importance of protecting water quality, potential pollutants and sources of pollutants expected at the facilities, operation and maintenance standards, inspection procedures, selecting appropriate Best Management Practices (BMPs), ways to perform job activities to prevent or minimize impacts to water quality, and procedures on reporting water quality concerns. For municipal facilities, trainings are focused on the chemicals used and stored at the facility and requirements in site-specific environmental permits and plans. The City provides additional training as needed due to staffing changes, procedural changes, regulatory changes, etc.

Training requirements for city employees with direct stormwater responsibilities are summarized in Table 6.

Table 6 Training for City Employees

Training	Audience	Frequency
Municipal Facilities Pollution Prevention and Good Housekeeping	New employees with direct stormwater responsibilities	One time per year
	Existing employees with direct stormwater responsibilities	Every two years

Environmental Resources staff provide annual training for employees (new and existing) assigned to the following city facilities:

- Water treatment plants;
- Water reclamation plants;
- Glendale Municipal Landfill;
- Glendale Municipal Airport; and
- Glendale Operations Center (vehicle/equipment fueling, vehicle/equipment maintenance, vehicle/equipment washing, chemical storage, bulk material storage, etc.).

7.2 Inventory

The City continues to maintain an inventory of facilities owned and operated by the City that have the potential to discharge pollutants to the MS4. The inventory includes equipment storage and maintenance facilities, fleet maintenance facilities, landfills (active), materials and waste storage yards and processing facilities, publicly owned treatment works, recycling facilities, street repair yards and street maintenance yards, and other sites that may contribute pollutants to the MS4. This inventory is reviewed and updated at least annually.

The facilities listed in the inventory have been prioritized for inspection. The factors considered in the prioritization included:

- The quantity, type, and location of materials used and/or stored at the facility;
- Potential for materials to be exposed to stormwater; and
- Potential to discharge a substantial pollutant load to the MS4 or to a protected surface water.

Facilities that are already covered under the Multi-Sector General Permit for stormwater discharges or another AZPDES permit, or have a No Exposure Certification, may be ranked as low priority according to the MS4 permit.

7.3 Inspections

All City facilities listed on the inventory will be inspected at least once during the five-year permit term. Based on the quantity, type and location of materials used and/or stored at the facility, there are 12 "high priority" municipal facilities to be inspected every year and 11 "medium priority" municipal facilities to be inspected in Years 2 and 4. The planned number of facility inspections over the five-year permit term are provided in Table 7.

Table 7 Planned Inspections for Municipal Facilities

Time Period	Planned Number of Municipal Facility Inspections*
Permit Year 1 – July 2021-June 2022	37 (Actual: 35)
Permit Year 2 – July 2022-June 2023	33 (Actual: 54)[1]
Permit Year 3 – July 2023-June 2024	63 (Actual: 63)[2]
Permit Year 4 – July 2024-June 2025	38[3]
Permit Year 5 – July 2025-June 2026	107

**Includes re-inspections during the permit term*
1 – Includes 16 areas of City-owned parcels and/or drainage tracts inspected in Year 2
2 – Includes 33 facilities and 30 areas of City-owned parcels
3 – Includes 24 facilities and 14 areas of City-owned parcels

The high number of municipal facilities proposed for Permit Year 5 includes over 60 neighborhood parks designated as low priority (no or minimal chemical storage at the site). These municipal properties were last inspected by Environmental Resources staff in the 2020-2021 reporting year.

7.4 Good Housekeeping Measures

Glendale continues to implement practices, policies, and procedures to reduce stormwater impacts associated with runoff from lands owned and operated by the City. A sample of practices, policies and procedures are listed in Table 8.

Table 8 Select Good Housekeeping Policies and Procedures

Sample of Good Housekeeping Practices, Policies, and Procedures
Policy ER-03: Hazardous Materials Management
Policy ER-04: Spill Plan Policy
Policy ER-05: Found Waste Policy
SOP: Vehicle and Equipment Fueling
SW SOP-01: Storm Drainage System Maintenance
BMPs for Power Washing
BMPs for Outdoor Operations

Several good housekeeping practices used by multiple departments/divisions are described in the next sub-sections.

7.4.1 Proper Management of Hazardous Materials and Wastes

The City manages hazardous materials, solid waste, universal waste, and hazardous waste in conformance with federal and state requirements, including but not limited to: Resource Conservation and Recovery Act; Emergency Planning and Community Right-to-Know Act; Federal Insecticide, Fungicide, and Rodenticide Act; Spill Prevention, Control and Countermeasures planning requirements; underground storage tank requirements; and other laws, regulations, and requirements.

7.4.2 Pesticides and Fertilizers

The City follows EPA, Arizona Department of Agriculture's Pest Management Division, and State of Arizona statutes, rules and regulations relating to the handling, application, and disposal of pesticides, herbicides, and fertilizers. The primary use of pesticides by the City is for weed control in the public right-of-way and parks.

In many instances, outside contractors are used to control weeds and pests. Contractors are required to follow local, state, and federal requirements for handling, application, and disposal of pesticides.

7.4.3 Spill Prevention and Response

The City has an effective program to prevent, contain, and manage spills to minimize pollutant discharges to the stormwater system. The City's plan consists of three components:

- Managing accidental spills or dumping in city streets/rights-of-way;
- Managing found waste to prevent spills; and
- Managing municipal operations to prevent, contain and manage spills.

7.4.3.1 Accidental Spills to City Streets/Rights-of-Way

The Glendale Fire Department is responsible for the response and containment of spills on city streets and rights-of-way that are an imminent threat to public health and safety. The

Hazardous Materials (HAZMAT) division of the Fire Department manages response to emergency spills and hazardous materials releases. The Police Department provides support (such as blocking streets) as required during these emergency response operations.

Techniques and controls to be utilized to protect stormwater inlets may include (but are not limited to):

- Placing tarp(s) over storm sewer inlet in conjunction with sandbags or similar means to weight the tarp;
- Creating a dike around an inlet;
- Constructing a temporary diversion channel to protect storm sewer inlet; or
- Use absorbent booms and pillows, neutralizing agents, etc.

Once the spill has been contained, the City uses qualified hazardous waste contractors to properly clean up and dispose of spilled hazardous materials. If there is a responsible party associated with the spill, that party will be directed to contact a licensed contractor for cleanup and disposal of spilled materials. In the event that the responsible party cannot be identified, and the spill is on city property or right-of-way, the City will notify the City's on-call hazardous waste contractor to clean up and dispose of the spilled materials.

7.4.3.2 Found Waste

City staff or residents may find potentially hazardous materials/wastes left by unknown persons on city property such as in the right-of-way, parks, retention basins, etc. In order to ensure this waste material is handled and disposed of properly, the City developed a Found Waste Policy (ER-05).

7.5 Recordkeeping

The City maintains records of the municipal facility inventory, prioritization of municipal facilities for inspection, and checklists and reports from municipal facility inspections. The City also maintains records associated with the good housekeeping practices, policies, and procedures.

8.0 Industrial and Commercial Facilities (Non-Municipally Owned)

The City has developed a comprehensive inspection program for industrial and commercial facilities that have the potential to discharge pollutants to the MS4. The inspection program includes training of city inspectors, and inventory, prioritization, and inspection of industrial and commercial facilities.

8.1 Employee Training

Training by the City currently consists of in-person classroom training, videos or computer modules, field training, and using outside vendors certified in stormwater training.

The training program addresses the importance of protecting water quality, potential pollutants and sources of pollutants expected at the facilities, operation and maintenance standards, inspection procedures, applicable City Codes, and the City's Stormwater Enforcement Response Plan. The City provides additional training as needed due to staffing changes, procedural changes, regulatory changes, etc. Training requirements for the City's industrial/commercial inspectors are summarized in Table 9.

Table 9 Training for Industrial/Commercial Inspectors

Training	Audience	Frequency
Industrial/Commercial Inspections	New employees with direct stormwater responsibilities	One time per year
	Existing employees with direct stormwater responsibilities	Every two years

In 2024, the City's industrial/commercial inspectors attended a training on commercial/industrial inspections.

8.2 Inventory

The industrial and commercial facility inventory contains the names of those facilities within the City that may discharge pollutants to the MS4. The City prioritizes the inventories of industrial and commercial facilities to focus efforts on facilities whose activities and/or location may increase the potential for stormwater pollution. As such, the City prioritizes facilities based upon the following criteria:

- Industrial facilities identified in 40 CFR 122.26(d)(2)(iv)(C);
- Industrial facilities potentially subject to Multi-Sector General Permit requirements;
- Facilities determined to be a high-priority based on previous inspection results and/or prior history of violations;
- Facilities subject to the City's Pretreatment Program that are determined to be a potential source of pollutants to the MS4; and
- Other facilities deemed to be a potential source of pollutants to the MS4.

The Pretreatment Division utilizes a database to maintain the facility inventory. The database is updated throughout the year. The City reviews and updates this list annually by acquiring information from sources such as regulatory agency databases, city tax and license information, facility inspections, canvassing businesses, or other sources that may contain information regarding business activities within the City.

The procedures for compiling the industrial and commercial inventory are documented in the City's standard operating procedure PSW-05.

8.3 Inspection

Any business having the potential to discharge pollutants to the MS4 is routinely inspected. Pretreatment Inspectors annually inspect at least 20% of the facilities on the inventory. Follow up inspections count towards the 20% goal.

The Glendale Pretreatment Division staff inspect commercial and industrial facilities for compliance with the Glendale stormwater ordinance. The inspections may be initiated because of a complaint or may be part of the pretreatment industrial and commercial facility inspection program.

The inspector observes a variety of items both inside and outside of the buildings during a stormwater inspection. If the inspector observes evidence of an illicit discharge to the MS4, the inspector follows enforcement procedures to halt the discharge. If the inspector observes evidence suggesting an illicit cross-connection exists between the facility and the storm drain, the City will investigate using appropriate techniques. If a cross-connection exists, the inspector can require that the connection be severed.

The procedures for prioritizing industrial and commercial inspections are documented in the City's standard operating procedure PSW-05.

8.4 Compliance Activities and Enforcement

Glendale has an effective compliance and enforcement program that includes a Stormwater Enforcement Response Plan detailing timelines and escalating actions. Protocols established by the City require at least 80% of the cases with the highest level of enforcement action be resolved within one calendar year of the initial inspection/violation.

Pretreatment Inspectors identify and document any facility potentially subject to ADEQ's Multi-Sector General Permit. Those facilities who do not have or have not filed a Notice of Intent ("non-filer") are reported to ADEQ within 30 days of identification as a potential non-filer.

8.5 Recordkeeping

The City maintains records of the industrial/commercial facility inventory, prioritization of facilities for inspection, and inspection reports. The City also maintains records associated with enforcement actions.

9.0 Construction Sites

The City has developed a comprehensive plan review and inspection program for construction sites. The inspection program includes employee training, plan reviews, construction site inventory, construction site prioritization, and inspections.

9.1 Employee Training

Training by the City currently consists of in-person classroom training, videos or computer modules, field training, and using outside vendors certified in stormwater training.

The training program addresses the importance of protecting water quality, potential pollutants and sources of pollutants expected at construction sites, operation and maintenance standards, inspection procedures, selecting appropriate Best Management Practices (BMPs), ways to perform job activities to prevent or minimize impacts to water quality, and procedures on reporting water quality concerns. The City provides additional training as needed due to staffing changes, procedural changes, regulatory changes, etc.

Training requirements for the City's construction inspectors are summarized in Table 10.

Table 10 Training for Construction Inspectors

Training	Audience	Frequency
Construction Inspections	New employees with direct stormwater responsibilities	One time per year
	Existing employees with direct stormwater responsibilities	Every two years

The Engineering Department plan reviewers who evaluate grading and drainage plans for compliance with City requirements are familiar with industry practices, City Codes, and NPDES requirements.

9.2 Plan Review

The City has implemented a process for review of all development projects within the City's boundaries to ensure compliance with City ordinances and design standards. The first step in the development review process is a pre-application meeting. The meeting is scheduled through the Development Services Department, in which representatives from affected City departments attend along with the developer and his/her representatives. The purpose of the meeting is to review conceptual plans, draft plans etc., provide guidance for compliance with all City regulations and ordinances, and to identify any special needs of the project or the adjacent area(s).

The plans that dictate the stormwater controls for the site are the Grading and Drainage Plans, which must comply with the City's Grading and Drainage Ordinance in Chapter 18.5 (and other related codes) of the Glendale City Code. The Grading and Drainage Ordinance requires retention of the 100-year, 2-hour storm event on site. This requirement applies to all new construction sites and sites that are being redeveloped within the City that meet certain thresholds. Certain smaller projects may request a waiver from retention requirements but must

comply with stormwater quality requirements. The City Engineer evaluates each request and may grant a waiver based on technical merit.

Sites that are 1 acre or more, or sites that disturb less than 1 acre that are part of a larger plan of development, require submittal of a formal Stormwater Pollution Prevention Plan (SWPPP) with the Grading and Drainage Plan submittal. The SWPPP identifies the BMPs to be implemented during construction, including their locations, to reduce pollutant discharges to the MS4. If the City determines that pollutants may enter the public storm drain system from construction activities at a site less than 1 acre, the City also has the authority to require BMPs at the site. The City reviews at least 80% of these plans each year.

Following the Engineering Department's approval of the Grading and Drainage Plan and SWPPP, if required, a Grading and Drainage Permit is issued which allows construction to begin at the site. For sites that are 1 acre or more, or sites that disturb less than 1 acre that are part of a larger plan of development, a copy of the Notice of Intent and Authorization Document demonstrating the site has obtained authorization under the Construction General Permit issued by the ADEQ is required prior to permit issuance. An Erosivity Waiver from ADEQ for small construction activities (between one and five acres) can be provided to the City in lieu of the Notice of Intent and Authorization Document if the construction activities qualify for the AZPDES Permit Waiver Certification.

Engineering requires that plans include erosion and sediment controls to protect water quality which include but are not limited to:

- Maximum fill and cut slopes, including maximum fill/cut slopes for drainage channels;
- Maximum bench heights and widths;
- Types of allowable fill materials;
- Fill compaction and requirements;
- Setbacks of fill slopes from property boundaries;
- Treatment of fill slopes and other slopes to prevent erosion;
- Terracing drainage requirements;
- Subsurface drainage controls for stability; and/or
- Drainage way erosion control provisions.

In certain circumstances, the City may require additional structural controls for a development located near a protected surface water or when there are other sensitive environmental concerns present.

9.3 Inventory

The City uses a database to track projects that require permit issuance from the City. This software is available and used by departments involved in various aspects of permit issuance. Within this database, the Engineering Department can distinguish and track construction projects that are 1 acre or larger which have been issued a grading or building permit or smaller projects that are part of a larger development.

9.4 Prioritization

The Engineering Department has created an inspection prioritization schedule for construction sites. At a minimum, construction sites assigned a "high priority" are inspected at least one time

every three months. Construction sites assigned a "low priority" are inspected at least one time every six months.

9.5 Inspections

Following issuance of the Grading and Drainage permit, construction at the site may begin. Construction projects are inspected at the required frequency (at least one time every three months for "high priority") until final stabilization is established. Inspections are performed to verify compliance with the City's stormwater and grading and drainage ordinances and submitted and approved SWPPP, if applicable.

Inspection priorities are evaluated on a site-specific basis with items most likely to impact stormwater quality inspected first (i.e., track out pads or silt fences). Subsequent items are also inspected in order of potential to contaminate stormwater.

The inspector will arrive on site and perform necessary inspections to assure compliance. If their findings indicate a stormwater quality deficiency, the infraction is called to the attention of the site's stormwater representative (i.e., contractor superintendent / owner etc.). The infraction and any necessary remediation are discussed along with the correction timeline. If a serious violation occurs (or there is inattentiveness on required correction), the inspector issues an immediate "stop work order" to the project site. This order precludes any work from continuing on-site. A "stop work order" is rare since the cost to stop work on a given site is much more than remediation. Records regarding the inspection are maintained in the database for each permit.

Inspectors conduct follow-up inspections of sites to ensure any deficiencies, concerns, non-compliance, etc. previously identified were corrected.

9.6 Compliance and Enforcement

Glendale has an effective compliance and enforcement program that includes a Stormwater Enforcement Response Plan detailing timelines and escalating actions. Protocols established by the City require cases with the highest level of enforcement action be resolved within one calendar year of the initial inspection/violation.

In the event the City identifies a construction site of 1 acre or more, or sites that disturb less than 1 acre that are part of a larger plan of development, is operating without a Construction General Permit that has been formally issued by ADEQ, the City reports the construction site to ADEQ as a potential "non-filer." "Non-filer" reports are submitted to ADEQ within 30 days of identifying a potential non-filer.

9.7 Recordkeeping

The City maintains records of the construction site inventory, procedure for prioritizing construction sites for inspection, and inspection reports. The City also maintains records associated with enforcement actions.

10.0 Post-Construction

City Code Chapter 33, Section 33-303 requires property owners or operators assure proper operation and maintenance of post-construction stormwater runoff controls that were approved during the plan review and approval process. The Engineering Department inspectors conduct a one-year warranty inspection on each construction project issued a permit. This inspection provides an opportunity to identify any necessary corrective action to be implemented by the responsible party.

10.1 Employee Training

Training by the City currently consists of in-person classroom training, videos or computer modules, field training, and using outside vendors certified in stormwater training.

The training program addresses the importance of protecting water quality, operation and maintenance standards, inspection procedures, selecting appropriate Best Management Practices (BMPs), ways to perform job activities to prevent or minimize impacts to water quality, and procedures for reporting water quality concerns. The City provides additional training as needed due to staffing changes, procedural changes, regulatory changes, etc.

Training requirements for the City's post-construction inspectors are summarized in Table 11.

Table 11 Training for Post-Construction Inspectors

Training	Audience	Frequency
Site Plan Review	New employees with direct stormwater responsibilities	One time per year
	Existing employees with direct stormwater responsibilities	Every two years
Post-Construction Inspections	New employees with direct stormwater responsibilities	One time per year
	Existing employees with direct stormwater responsibilities	Every two years

10.1.1 Site Plan Review Staff

Training for City staff that review site plans include:

- Grading and drainage design standards;
- Municipal ordinances related to stormwater pollution control and post-construction stormwater control measures;
- Requirements for structural and non-structural management practices in new development and redevelopment; and
- Post-construction stormwater controls.

10.1.2 Post-Construction Inspectors

Training for City staff that conduct post-construction inspections include:

- Municipal ordinances related to stormwater pollution control and post-construction stormwater control measures;
- Requirements for structural stormwater controls in new development and redevelopment;
- Maintenance responsibilities through agreements and policies;
- Inspection procedures; and
- Enforcement procedures.

10.2 Post-Construction Controls

Glendale continues to implement a post-construction stormwater control program. This program applies to privately-owned areas of development and redevelopment (one acre or greater) discharging to the MS4 after construction is complete. Adequate post construction BMPs, ordinances, and policies have been met since the City implemented the City of Glendale 2015 Engineering Design Standards and Details.

The City's permitting and inspection process ensures controls for stormwater are implemented during development and that stormwater controls remain in place following development. To inventory and track post-construction controls, those assets are added to the City's GIS.

For City-owned sites, City staff conduct routine visual inspections of post-construction stormwater controls. For example, Environmental Resources staff inspect stormwater controls at municipal facilities during the inspections described in Section 7.3 of this SWMP. Parks and Right-of-Way staff also conduct routine inspections of stormwater controls, such as retention basins, at their assigned sites. In some cases, the City may use a contractor such as for drywell inspections and maintenance.

10.3 Compliance Activities and Enforcement

City Code requires property owners and operators to ensure proper operation and maintenance of post-construction stormwater controls. City Code Section 33-303 lists the following examples of stormwater controls: retention basins, drywells, scuppers, and "other measures implemented or installed at the site to control or direct stormwater runoff." Changes or alterations to stormwater controls, or to stormwater management agreements, are not permitted without formal review and written approval by the City.

Within one year of construction, Engineering Inspectors inspect at least 90% of sites (one acre or greater) discharging to the MS4 that the City permitted for new development or redevelopment. As required by the City's MS4 permit, achievement of 80% of the design standard is considered compliant.

Additional inspections of privately-owned post-construction stormwater controls are conducted on an as-needed basis. Inspections may be triggered by a complaint from the public.

Glendale maintains records of incidents of non-compliance with post construction BMPs and the follow up actions taken to achieve compliance.

10.4 Retrofit Feasibility

The MS4 Permit issued to the City in 2021 included new requirements related to retrofits. According to the Center for Watershed Protection's "Manual 3 – Urban Stormwater Retrofit Practices" (Version 1.0; August 2007), "stormwater retrofits help restore watersheds by

providing stormwater treatment in locations where practices previously did not exist or were ineffective." Retrofits can be used to remove pollutants and minimize stream channel erosion.

Retrofit feasibility requirements from the permit are listed in Table 12.

Table 12 New Retrofit Feasibility Requirements

Time Period	Permit Requirement
Permit Year 1 – July 2021-June 2022	Evaluate and document three areas within the MS4 with potential to contribute to surface water quality standards exceedances of a WOTUS. Propose three areas with supporting documentation to ADEQ for review and approval with the first-year annual report.
Permit Year 4 – July 2024-June 2025	Upon ADEQ's approval of the three areas, develop a feasibility assessment to retrofit existing developed sites discharging to the MS4. Submit the retrofit feasibility assessment with the 4th year annual report.

10.4.1 Proposed Retrofit Areas

As required by the permit, the City of Glendale selected three areas within the MS4 for the retrofit feasibility assessment. The three proposed areas and supporting documentation were submitted to ADEQ in September 2022. On December 16, 2022, the City of Glendale received a letter from ADEQ approving the three proposed areas.

10.4.2 Retrofit Feasibility Assessment

The MS4 Permit requires the City to conduct a retrofit feasibility assessment of the three approved areas during the fourth year of the permit (2024-2025). The retrofit feasibility assessment must include:

- An inventory of potential retrofit locations within each of the three areas approved by ADEQ.
- A ranking of the inventoried location to prioritize potential retrofitting. The ranking must consider, at a minimum, stormwater pollutant control measures, feasibility, cost effectiveness, impervious area potentially treated, maintenance requirements, landowner cooperation, and expected improvement to water quality.

11.0 Stormwater Monitoring

Glendale conducts stormwater (or wet weather) monitoring as required by Section 5.0 of the MS4 permit. Data from stormwater sampling and analytical testing is used to:

- Characterize stormwater quality and identify stormwater pollutants.
- Detect and eliminate illicit discharges.
- Evaluate the overall effectiveness of the control measures, and the SWMP, in reducing the discharge of pollutants to the maximum extent practicable.

11.1 Monitoring Locations

Five monitoring locations have been selected for stormwater monitoring. These locations are representative of stormwater discharges and land uses within the MS4. The land uses in the drainage area for each of the five monitoring locations are listed in Table 13.

Table 13 Wet Weather Monitoring Locations

Location Name	Discharge Location	Description of Drainage Area
ACDC10	Arizona Canal Diversion Channel (ACDC)	100% Residential
CITRUS	Skunk Creek	99% Residential 1% Commercial
OLIVE	City of Peoria then New River	96% Residential 4% Commercial
ARROW	Skunk Creek	93% Residential 7% Commercial
INDPK	New River	96% Industrial 4% Commercial

11.2 Sampling Requirements

Glendale attempts to collect samples of stormwater discharges from the MS4 at the approved monitoring locations at least twice a year for analytical testing. Samples are collected from the first qualifying storm event of each wet season, and subsequent qualifying storm events as necessary to complete the monitoring requirements.

Wet seasons for the purpose of monitoring are:

Summer Wet Season	June 1 – October 31
Winter Wet Season	November 1 – May 31

11.2.1 Qualifying Event

Glendale collects stormwater samples during qualifying storm events. A qualifying storm event is rainfall in the amount of 0.2 inches or more and a resulting discharge. In addition, the qualifying storm event for sample collection must be more than 72 hours after a previous qualifying storm event.

11.2.2 Sampling Waiver

Sampling of a qualifying storm event is not required during adverse climatic conditions or when experiencing technical malfunctions. The City continues to monitor subsequent storm events during the wet season and perform sampling of a qualifying event if another occurs during the same wet season. Information on the conditions that prevented sampling are reported to ADEQ.

11.2.3 Sample Analysis

Samples are collected for the parameters listed, and at the frequency listed, in the table in Attachment D.

The City implements and maintains a Quality Assurance Manual that describes sample collection and analytical processes. The manual is updated as necessary to reflect current conditions and describes the following:

- Project management;
- Sample collection procedures;
- Specification of approved analytical methods; and
- How data reviews are performed, how Discharge Monitoring Reports (DMRs) are completed, how records are used to report results, how data quality issues are resolved, and limitations on the use of the data.

Sample collection, preservation and handling are performed as described in 40 CFR 136, or by procedures referenced in AAC Title 9, Chapter 14 of the Arizona Department of Health Services (ADHS) Laboratory Licensure rules. Proper procedures are outlined in the Quality Assurance Manual and samples taken conform to these procedures whether collection and handling is performed by the City or contracted to a third party.

The City uses a laboratory licensed by the ADHS Office of Laboratory Licensure and Certifications. Sample analyses conducted in the field at the time of collection may be performed utilizing instrumentation appropriate for the analysis or measurements and must meet the requirements of the permit.

11.3 Monitoring Records

Each wet season Glendale records qualifying storm events occurring at each monitoring location until all samples required to be collected during that season are obtained from that location.

The City submits the following storm event data with the DMR to ADEQ:

- Date of each qualifying storm event;
- Amount of rainfall (in inches) in the drainage area during the event for each monitoring location; and
- Indication of whether or not a stormwater sample was collected, and if not, indicate the appropriate No Discharge (NODI) code in the report to explain the conditions that prevented sampling.

12.0 Reporting

The City is required to submit reports to ADEQ at the frequency specified in the MS4 permit. There are three types of reports:

- Monthly "non-filer" reports for industrial sites and construction sites.
- Discharge Monitoring Report (DMR) for stormwater sample data.
- Annual Report to summarize programs and activities conducted to comply with the MS4 permit.

Also, in year 4 of the permit, the City will submit a renewal application to ADEQ.

12.1 Non-filer Reporting

As stated in Sections 8.4 and 9.6 of this SWMP, potential "non-filers" are reported to ADEQ. A "non-filer" is an industrial facility that may need to obtain coverage under ADEQ's Multi-Sector General Permit or a construction site that may need to obtain coverage under ADEQ's Construction General Permit.

The MS4 permit requires the City to report suspected non-filers within 30 business days of identification. The facility name and location are emailed to ADEQ (azpdes@azdeq.gov) with "Non-filer-City of Glendale- AZS000019" in the subject line.

12.2 Discharge Monitoring Report (DMR)

The City reports wet weather analytical monitoring results on a DMR to the ADEQ. The DMR will be submitted using the myDEQ system once that feature is available. DMRs are submitted within 30 business days of receipt of all lab reports for all methods at each monitoring location. The DMR submittal includes:

- DMR spreadsheet (produced by the myDEQ system);
- Copies of lab reports;
- Bench sheets or similar documentation for field testing parameters; and
- Storm event data.

In the event of conditions that qualify for a sampling waiver, Glendale will submit a DMR within 30 calendar days after the end of the wet season and indicate why a sample could not be collected.

12.3 Annual Report

The reporting period for the annual report is July 1 through June 30. The City submits an annual report by September 30th each year of the permit term using the myDEQ system.

12.4 Renewal Application

The City will complete the renewal application in Year 4 of the permit. The renewal application must be submitted 180 calendar days prior to the permit expiration date.

Attachment A

MAP OF GLENDALE'S MUNICIPAL PLANNING AREA

Storm Water Major Outfalls

- Major Outfalls
- City of Glendale Boundary
- Maricopa County
- Lakes and Rivers

0 0.75 1.5 3 Miles

Glendale WATER SERVICES

N

AGUA FRIA RIVER

SKUNK CREEK

ARIZONA CANAL DIVERSION CHANNEL

ARIZONA CANAL

NEW RIVER

BETHANY HOME OUTFALL CHANNEL

GRAND CANAL

This map includes the estimated location of Water Services asset(s) is for visual reference only.

Attachment B

PROTECTED SURFACE WATERS LIST (TABLES A THROUGH C) AND MAP OF PROTECTED SURFACE WATERS IN GLENDALE

R18-11-216. The Protected Surface Waters List

Tables A through C prescribe the protected surface waters list.

Historical Note

Section made by final rulemaking at 29 A.A.R. 302 (January 27, 2023), effective February 20, 2023 (Supp. 22-4).

Table A. Non-WOTUS Protected Surface Waters and Designated Uses

Watershed	Surface Waters	Segment Description and Location (Latitude and Longitudes are in NAD 83)	Aquatic and Wildlife		Human Health				Agricultural	
			A&Wc AZ	A&Ww AZ	FBC AZ	PBC AZ	DWS AZ	FC AZ	AgI AZ	AgL AZ
CG	Cottonwood Creek	Headwaters to confluence with unnamed tributary at 35°20'46"/113°35'31"	A&Wc AZ		FBC AZ			FC AZ		AgL AZ
CG	Cottonwood Creek	Below confluence with unnamed tributary to confluence with Truxton Wash		A&Ww AZ	FBC AZ			FC AZ		AgL AZ
CG	Wright Canyon Creek	Headwaters to confluence with unnamed tributary at 35°20'48"/113°30'40"	A&Wc AZ		FBC AZ			FC AZ		AgL AZ
CG	Wright Canyon Creek	Below confluence with unnamed tributary to confluence with Truxton Wash		A&Ww AZ	FBC AZ			FC AZ		AgL AZ
LC	Boot Lake	34°58'54"/111°20'11"	A&Wc AZ		FBC AZ			FC AZ		AgL AZ
LC	Little Ortega Lake	34°22'47"/109°40'06"	A&Wc AZ		FBC AZ			FC AZ		
LC	Mormon Lake	34°56'38"/111°27'25"	A&Wc AZ		FBC AZ		DWS AZ	FC AZ	AgI AZ	AgL AZ
LC	Potato Lake	35°03'15"/111°24'13"	A&Wc AZ		FBC AZ			FC AZ		AgL AZ
LC	Pratt Lake	34°01'32"/109°04'18"	A&Wc AZ		FBC AZ			FC AZ		
LC	Sponseller Lake	34°14'06"/109°50'45"	A&Wc AZ		FBC AZ			FC AZ		AgL AZ
LC	Vail Lake	35°05'23"/111°30'46"	A&Wc AZ		FBC AZ			FC AZ		AgL AZ
LC	Water Canyon Reservoir	34°03'38"/109°26'20		A&Ww AZ	FBC AZ			FC AZ	AgI AZ	AgL AZ
MG	Bonsall Park Lake	59th Avenue & Bethany Home Road at 33°31'24"/ 112°11'08"		A&Ww AZ		PBC AZ		FC AZ		
MG	Canal Park Lake	College Avenue & Curry Road, Tempe at 33°26'54"/ 111°56'19"		A&Ww AZ		PBC AZ		FC AZ		
SP	Big Creek	Headwaters to confluence with Pitchfork Canyon Wash	A&Wc AZ		FBC AZ			FC AZ		AgL AZ
SP	Goudy Canyon Wash	Headwaters to confluence with Grant Creek	A&Wc AZ		FBC AZ			FC AZ		
SP	Grant Creek	Headwaters to confluence with unnamed tributary at 32°38'10"/109°56'37"		A&Ww AZ	FBC AZ		DWS AZ	FC AZ		
SP	Grant Creek	Below confluence with unnamed tributary to terminus near Willcox Playa		A&Ww AZ	FBC AZ			FC AZ		
SP	High Creek	Headwaters to confluence with unnamed tributary at 32°33'08"/110°14'42"	A&Wc AZ		FBC AZ			FC AZ		AgL AZ
SP	High Creek	Below confluence with unnamed tributary to terminus near Willcox Playa	A&Wc AZ		FBC AZ			FC AZ		AgL AZ
SP	Pinery Creek	Headwaters to State Highway 181	A&Wc AZ		FBC AZ		DWS AZ	FC AZ		AgL AZ
SP	Pinery Creek	Below State Highway 181 to terminus near Willcox Playa		A&Ww AZ	FBC AZ		DWS AZ	FC AZ		AgL AZ
SP	Post Creek	Headwaters to confluence with Grant Creek	A&Wc AZ		FBC AZ			FC AZ	AgI AZ	AgL AZ
SP	Riggs Flat Lake	32°42'28"/109°57'53"	A&Wc AZ		FBC AZ			FC AZ	AgI AZ	AgL AZ
SP	Rock Creek	Headwaters to confluence with Turkey Creek			FBC AZ			FC AZ		AgL AZ
SP	Soldier Creek	Headwaters to confluence with Post Creek at 32°40'50"/ 109°54'41"	A&Wc AZ		FBC AZ			FC AZ		AgL AZ
SP	Snow Flat Lake	32°39'10"/109°51'54"	A&Wc AZ		FBC AZ			FC AZ	AgI AZ	AgL AZ
SP	Stronghold Canyon East	Headwaters to 31°55'9.28"/109°57'53.24"	A&Wc AZ			PBC AZ				
SP	Stronghold Canyon East	31°55'9.28"/109°57'53.24" to confluence with Carlink Canyon		A&Ww AZ		PBC AZ				
SP	Turkey Creek	Headwaters to confluence with Rock Creek	A&Wc AZ		FBC AZ			FC AZ	AgI AZ	AgL AZ
SP	Turkey Creek	Below confluence with Rock Creek to terminus near Willcox Playa		A&Ww AZ	FBC AZ			FC AZ	AgI AZ	AgL AZ
UG	Ward Canyon	Headwaters to confluence with Turkey Creek	A&Wc AZ		FBC AZ			FC AZ		AgL AZ
VR	Moonshine Creek	Headwaters to confluence with Post Creek	A&Wc AZ		FBC AZ			FC AZ		AgL AZ

Historical Note

Table A made by final rulemaking at 29 A.A.R. 302 (January 27, 2023), effective February 20, 2023 (Supp. 22-4).

Table B. WOTUS Protected Surface Waters

The waters listed in this table have been tentatively identified by ADEQ as WOTUS, under the law governing on 8/26/2022. Notwithstanding its inclusion on the list below, the status of a particular water in this table can be contested by a person in an enforcement or permit proceeding, a challenge to an identification as an impaired water, or a challenge to a proposed TMDL for an impaired water. Any changes to Table B will be made through formal rulemaking.

The waters on this list have their designated uses assigned by Title 18, Chapter 11, Article 1. Coordinates are from the North American Datum of 1983 (NAD83). All latitudes in Arizona are north and all longitudes are west, but the negative signs are not included in the WOTUS Protected Surface Waters Table. Some web-based mapping systems require a negative sign before the longitude values to indicate it is a west longitude.

Watersheds:

BW = Bill Williams
CG = Colorado – Grand Canyon
CL = Colorado – Lower Gila
LC = Little Colorado
MG = Middle Gila
SC = Santa Cruz – Rio Magdelena – Rio Sonoyta
SP = San Pedro – Willcox Playa – Rio Yaqui
SR = Salt River
UG = Upper Gila
VR = Verde River

Other Abbreviations:

WWTP = Wastewater Treatment Plant
Km = kilometers

Watershed	Surface Water	Segment Description and Location (Latitude and Longitudes are in NAD 83)
BW	Big Sandy River	Headwaters to Alamo Lake
BW	Boulder Creek	Below confluence with unnamed tributary to confluence with Burro Creek
BW	Burro Creek	Below confluence with Boulder Creek to confluence with Big Sandy River
BW	Burro Creek (OAW)	Headwaters to confluence with Boulder Creek
BW	Francis Creek (OAW)	Headwaters to confluence with Burro Creek
BW	Kirkland Creek	Headwaters to confluence with Santa Maria River
BW	Trout Creek	Below confluence with unnamed tributary to confluence with Knight Creek
CG	Beaver Dam Wash	Headwaters to confluence with the Virgin River
CG	Bright Angel Creek	Headwaters to confluence with Roaring Springs Creek
CG	Bright Angel Creek	Below Roaring Spring Springs Creek to confluence with Colorado River
CG	Colorado River	Lake Powell to Lake Mead
CG	Crystal Creek	Below confluence with unnamed tributary to confluence with Colorado River
CG	Deer Creek	Below confluence with unnamed tributary to confluence with Colorado River
CG	Garden Creek	Headwaters to confluence with Pipe Creek
CG	Havasu Creek	From the Havasupai Indian Reservation boundary to confluence with the Colorado River
CG	Hermit Creek	Below Hermit Pack Trail crossing to confluence with the Colorado River
CG	Kanab Creek	Headwaters to confluence with the Colorado River
CG	Lake Mead	36°06'18"/114°26'33"
CG	Lake Powell	36°59'53"/111°08'17"
CG	Nankoweap Creek	Below confluence with unnamed tributary to confluence with Colorado River
CG	Paria River	Utah border to confluence with the Colorado River
CG	Phantom Creek	Below confluence with unnamed tributary to confluence with Bright Angel Creek
CG	Pipe Creek	Headwaters to confluence with the Colorado River
CG	Shinumo Creek	Below confluence with unnamed tributary to confluence with the Colorado River
CG	Short Creek	Headwaters to confluence with Fort Pearce Wash
CG	Tapeats Creek	Headwaters to confluence with the Colorado River
CG	Thunder River	Headwaters to confluence with Tapeats Creek
CG	Vasey's Paradise	A spring at 36°29'52"/111°51'26"
CG	Virgin River	Headwaters to confluence with the Colorado River
CG	White Creek	Headwaters to confluence with unnamed tributary at 36°18'45"/112°21'03"
CG	White Creek	Below confluence with unnamed tributary to confluence with the Colorado River
CL	A10 Backwater	33°31'45"/114°33'19"
CL	A7 Backwater	33°34'27"/114°32'04"
CL	Adobe Lake	33°02'36"/114°39'26"
CL	Cibola Lake	33°14'01"/114°40'31"
CL	Clear Lake	33°01'59"/114°31'19"
CL	Colorado River	Lake Mead to Topock Marsh
CL	Colorado River	Topock Marsh to Morelos Dam
CL	Gila River	Painted Rock Dam to confluence with the Colorado River
CL	Hunter's Hole Backwater	32°31'13"/114°48'07"
CL	Imperial Reservoir	32°53'02"/114°27'54"
CL	Island Lake	33°01'44"/114°36'42"
CL	Laguna Reservoir	32°51'35"/114°28'29"
CL	Lake Havasu	34°35'18"/114°25'47"
CL	Lake Mohave	35°26'58"/114°38'30"
CL	Martinez Lake	32°58'49"/114°28'09"
CL	Mittry Lake	32°49'17"/114°27'54"
CL	Nortons Lake	33°02'30"/114°37'59"
CL	Pretty Water Lake	33°19'51"/114°42'19"

CL	Topock Marsh	34°43'27"/114°28'59"
LC	Auger Creek	Headwaters to confluence with Nutrioso Creek
LC	Chevelon Canyon	Headwaters to confluence with the Little Colorado River
LC	Chevelon Canyon Lake	34°29'18"/110°49'30"
LC	Clear Creek	Headwaters to confluence with the Little Colorado River
LC	Clear Creek Reservoir	34°57'09"/110°39'14"
LC	Colter Creek	Headwaters to confluence with Nutrioso Creek
LC	Colter Reservoir	33°56'39"/109°28'53"
LC	Coyote Creek	Headwaters to confluence with the Little Colorado River
LC	Cragin Reservoir (formerly Blue Ridge Reservoir)	34°32'40"/111°11'33"
LC	East Clear Creek	Headwaters to confluence with Clear Creek
LC	Ellis Willbank Reservoir	34°05'25"/109°28'25"
LC	Fool's Hollow Lake	34°16'30"/110°03'43"
LC	Lee Valley Creek	From Lee Valley Reservoir to confluence with the East Fork of the Little Colorado River
LC	Lily Creek	Headwaters to confluence with Coyote Creek
LC	Little Colorado River	Headwaters to Lyman Reservoir
LC	Little Colorado River	Below Lyman Reservoir to confluence with the Puerco River
LC	Little Colorado River	Below Puerco River confluence to the Colorado River, excluding segments on Native American Lands
LC	Little Colorado River, East Fork	Headwaters to confluence with the Little Colorado River
LC	Little Colorado River, South Fork	Headwaters to confluence with the Little Colorado River
LC	Little Colorado River, West Fork	Below Government Springs to confluence with the Little Colorado River
LC	Lyman Reservoir	34°21'21"/109°21'35"
LC	Marnie Creek	Headwaters to confluence with Coyote Creek
LC	Morrison Creek	Headwaters to Marnie Creek @ 33°59'24.45"/109°03'51.94
LC	Nutrioso Creek	Headwaters to confluence with the Little Colorado River
LC	Porter Creek	Headwaters to confluence with Show Low Creek
LC	Riggs Creek	Headwaters to Nutrioso Creek
LC	Rio de Flag	Headwaters to City of Flagstaff WWTP outfall at 35°12'21"/111°39'17"
LC	Rudd Creek	Headwaters to confluence with Nutrioso Creek
LC	Rosey Creek	Headwaters to 34°02'28.72"/109°27'24.3"
LC	Scott Reservoir	34°10'31"/109°57'31"
LC	Show Low Creek	Headwaters to confluence with Silver Creek
LC	Show Low Lake	34°11'36"/110°00'12"
LC	Silver Creek	Headwaters to confluence with the Little Colorado River
LC	White Mountain Lake	34°21'57"/109°59'21"
LC	Willow Creek	Headwaters to confluence with Clear Creek
LC	Zuni River	Headwaters to confluence with the Little Colorado River
MG	Agua Fria River	From State Route 169 to Lake Pleasant
MG	Ash Creek	Headwaters to confluence with Tex Canyon
MG	East Maricopa Floodway	From Brown and Greenfield Rds to the Gila River Indian Reservation Boundary
MG	Fain Lake	Town of Prescott Valley Park Lake 34°34'29"/ 112°21'06"
MG	Gila River	San Carlos Indian Reservation boundary to the Ashurst-Hayden Dam
MG	Gila River (EDW)	From the confluence with the Salt River to Gillespie Dam
MG	Hassayampa Lake	34°25'45"/112°25'33"
MG	Hassayampa River	Below unnamed tributary to the Buckeye Irrigation Company Canal
MG	Hassayampa River	Headwaters to confluence with unnamed tributary at 34°26'09"/112°30'32"
MG	Lake Pleasant	33°53'46"/112°16'29"
MG	Little Ash Creek	Headwaters to confluence with Ash Creek at 34°20'45.74"/112°4'17.26"
MG	Little Sycamore Creek	Headwaters to Sycamore Creek @ 34°21'39.13"/111°58'49.98"
MG	Mineral Creek (diversion tunnel and lined channel)	33°12'24"/110°59'58" to 33°07'56"/110°58'34"
MG	Papago Park South Pond	Curry Road, Tempe 33°26'22"/111°55'55"
MG	Salt River	Verde River to 2 km below Granite Reef Dam
MG	Seven Springs Wash	Headwaters to Unnamed trib @ 33°57'58.66"/111°51'52.07"
MG	Tempe Town Lake	At Mill Avenue Bridge at 33°26'00"/111°56'26"
MG	Turkey Creek	Headwaters to confluence with unnamed tributary at 34°19'28"/112°21'33"
SC	Alum Gulch	Below 31°29'17"/110°44'25" to confluence with Sonoita Creek
SC	California Gulch	Headwaters To U.S./Mexico border
SC	Cienega Creek (OAW)	From confluence with Gardner Canyon to USGS gaging station (#09484600)
SC	Cox Gulch	Headwaters to Three R Canyon @ 31°28'28.03"/110°47'14.65"
SC	Holden Canyon Creek	Headwaters to U.S./Mexico border
SC	Julian Wash	Headwaters to confluence with the Santa Cruz River
SC	Nogales Wash	Headwaters to confluence with Potrero Creek
SC	Parker Canyon Creek	Below unnamed tributary to U.S./Mexico border
SC	Rillito Creek	Headwaters to confluence with the Santa Cruz River
SC	Romero Canyon Creek	Below unnamed tributary to confluence with Sutherland Wash
SC	Santa Cruz River	Headwaters to the at U.S./Mexico border
SC	Santa Cruz River	U.S./Mexico border to the Nogales International WWTP outfall at 31°27'25"/110°58'04"
SC	Santa Cruz River	Tubac Bridge to Agua Nueva WRF outfall at 32°17'04"/111°01'45"
SC	Santa Cruz River (EDW)	Agua Nueva WRF outfall to Baumgartner Road
SC	Sonoita Creek	Headwaters to the Town of Patagonia WWTP outfall at 31°32'25"/110°45'31"
SC	Sonoita Creek (EDW)	Town of Patagonia WWTP outfall to permanent groundwater upwelling point approximately 1600 feet downstream of outfall
SC	Sycamore Canyon	Headwaters to the U.S./Mexico border
SP	Aravaipa Creek	Below downstream boundary of Aravaipa Canyon Wilderness Area to confluence with the San Pedro River
SP	Aravaipa Creek (OAW)	Stowe Gulch to downstream boundary of Aravaipa Canyon Wilderness Area
SP	Bass Canyon Creek	Below confluence with unnamed tributary to confluence with Hot Springs Canyon Creek
SP	Bear Creek	Headwaters to U.S./Mexico border
SP	Black Draw	Headwaters to the U.S./Mexico border
SP	Carr Canyon Creek	Headwaters to confluence with unnamed tributary at 31°27'01"/110°15'48"
SP	Gold Gulch	Headwaters to U.S./Mexico border
SP	Ramsey Canyon Creek	Below Forest Service Road #110 to confluence with Carr Wash

SP	San Pedro River	U.S./ Mexico Border to Buehman Canyon
SP	San Pedro River	From Buehman canyon to confluence with the Gila River
SP	Whitewater Draw	Headwaters to confluence with unnamed tributary at 31°20'36"/109°43'48"
SP	Whitewater Draw	Below confluence with unnamed tributary to U.S./ Mexico border
SR	Ackre Lake	33°37'01"/109°20'40"
SR	Apache Lake	33°37'23"/111°12'26"
SR	Bear Wallow Creek (OAW)	Headwaters to confluence with the Black River
SR	Beaver Creek	Headwaters to confluence with Black River
SR	Black River	Headwaters to confluence with Salt River
SR	Black River, East Fork	From 33°51'19"/109°18'54" to confluence with the Black River
SR	Black River, North Fork of East Fork	Headwaters to confluence with Boneyard Creek
SR	Black River, West Fork	Headwaters to confluence with the Black River
SR	Boggy Creek	Headwaters to confluence with Centerfire Creek
SR	Boneyard Creek	Headwaters to confluence with Black River, East Fork
SR	Canyon Lake	33°32'44"/111°26'19"
SR	Cherry Creek	Below unnamed tributary to confluence with the Salt River
SR	Conklin Creek	Headwaters to confluence with the Black River
SR	Corduroy Creek	Headwaters to confluence with Fish Creek
SR	Devils Chasm Creek	Below confluence with unnamed tributary to confluence with Cherry Creek
SR	Dipping Vat Reservoir	33°55'47"/109°25'31"
SR	Fish Creek	Headwaters to confluence with the Black River
SR	Haigler Creek	Headwaters to confluence with unnamed tributary at 34°12'23"/111°00'15"
SR	Haigler Creek	Below confluence with unnamed tributary to confluence with Tonto Creek
SR	Hannagan Creek	Headwaters to confluence with Beaver Creek
SR	Hay Creek (OAW)	Headwaters to confluence with the Black River, West Fork
SR	Horton Creek	Headwaters to confluence with Tonto Creek
SR	P B Creek	Below Forest Service Road #203 to Cherry Creek
SR	Pinal Creek	From Lower Pinal Creek WTP outfall # to See Ranch Crossing at 33°32'25"/110°52'28"
SR	Pinal Creek	From unnamed tributary to confluence with Salt River
SR	Pinto Creek	Headwaters to confluence with unnamed tributary at 33°19'27"/110°54'58"
SR	Roosevelt Lake	33°52'17"/111°00'17"
SR	Rye Creek	Headwaters to confluence with Tonto Creek
SR	Saguaro Lake	33°33'44"/111°30'55"
SR	Salt River	White Mountain Apache Reservation Boundary at 33°48'52"/110°31'33" to Roosevelt Lake
SR	Salt River	Theodore Roosevelt Dam to 2 km below Granite Reef Dam
SR	Thompson Creek	Headwaters to confluence with the West Fork of the Black River
SR	Tonto Creek	Headwaters to confluence with unnamed tributary at 34°18'11"/111°04'16"
SR	Tonto Creek	Below confluence with unnamed tributary to Roosevelt Lake
SR	Willow Creek	Headwaters to confluence with Beaver Creek
SR	Workman Creek	Below confluence with Reynolds Creek to confluence with Salome Creek
UG	Apache Creek	Headwaters to confluence with the Gila River
UG	Bitter Creek	Headwaters to confluence with the Gila River
UG	Blue River	Headwaters to confluence with Strayhorse Creek at 33°29'02"/109°12'14"
UG	Blue River	Below confluence with Strayhorse Creek to confluence with San Francisco River
UG	Bob Thomas Creek	Headwaters to Stone Creek 33°51'93"/109°42'52"
UG	Bonita Creek (OAW)	San Carlos Indian Reservation boundary to confluence with the Gila River
UG	Campbell Blue Creek	Headwaters to confluence with the Blue River
UG	Cave Creek (OAW)	Headwaters to confluence with South Fork Cave Creek
UG	Cave Creek (OAW)	Below confluence with South Fork Cave Creek to Coronado National Forest boundary
UG	Cave Creek, South Fork	Headwaters to confluence with Cave Creek
UG	Deadman Canyon Creek	Headwaters to confluence with unnamed tributary at 32°43'50"/109°49'03"
UG	Eagle Creek	Below confluence with unnamed tributary to confluence with the Gila River
UG	Gila River	New Mexico border to the San Carlos Indian Reservation boundary
UG	Grant Creek	Headwaters to confluence with the Blue River
UG	Judd Lake	33°51'15"/109°09'35"
UG	K P Creek (OAW)	Headwaters to confluence with the Blue River
UG	Little Blue Creek	Below confluence with Dutch Blue Creek to confluence with Blue Creek
UG	Luna Lake	33°49'50"/109°06'06"
UG	North Fork Cave Creek	Headwaters to Cave Creek @ 31°52'56.63"/109°12'19.75"
UG	Raspberry Creek	Headwaters to confluence with the Blue River
UG	San Francisco River	Headwaters to the New Mexico border
UG	San Francisco River	New Mexico border to confluence with the Gila River
UG	San Simon River	Headwaters to confluence with the Gila River
UG	Stone Creek	Headwaters to confluence with the San Francisco River
UG	Thomas Creek	Below confluence with Rousensock Creek to confluence with Blue River
UG	Turkey Creek	Headwaters to confluence with Campbell Blue Creek
VR	Bartlett Lake	33°49'52"/111°37'44"
VR	Beaver Creek	Headwaters to confluence with the Verde River
VR	Bitter Creek	Headwaters to the Jerome WWTP outfall at 34°45'12"/112°06'24"
VR	Bitter Creek	Below the Yavapai Apache Indian Reservation boundary to confluence with the Verde River
VR	Dead Horse Lake	34°45'08"/112°00'42"
VR	East Verde River	Headwaters to confluence with Ellison Creek
VR	East Verde River	Below confluence with Ellison Creek to confluence with the Verde River
VR	Fossil Creek (OAW)	Headwaters to confluence with the Verde River
VR	Fossil Springs (OAW)	34°25'24"/111°34'27"
VR	Horseshoe Reservoir	34°00'25"/111°43'36"
VR	Oak Creek (OAW)	Headwaters to confluence with unnamed tributary at 34°59'15"/111°44'47"
VR	Oak Creek (OAW)	Below confluence with unnamed tributary to confluence with Verde River
VR	Spring Creek	Below confluence with unnamed tributary to confluence with Oak Creek
VR	Sullivan Lake	34°51'42"/112°27'51"

VR	Sycamore Creek	Headwaters to confluence with unnamed tributary at 35°03'41"/111°57'31"
VR	Sycamore Creek	Headwaters to confluence with Verde River at 33°37'55"/111°39'58"
VR	Verde River	From headwaters at confluence of Chino Wash and Granite Creek to Bartlett Lake Dam
VR	Verde River	Below Bartlett Lake Dam to Salt River
VR	West Clear Creek	Headwaters to confluence with Meadow Canyon
VR	West Clear Creek	Below confluence with Meadow Canyon to confluence with the Verde River
VR	Wet Beaver Creek	Below unnamed springs to confluence with Dry Beaver Creek
VR	Willow Creek Reservoir	34°36'17"/112°26'19"

Historical Note

Table B made by final rulemaking at 29 A.A.R. 302 (January 27, 2023), effective February 20, 2023 (Supp. 22-4).

Table C. Historically Regulated as WOTUS and in Need of Confirmation

The waters listed in this table have historically been and will continue to be regulated as WOTUS unless ADEQ makes a determination that they are non-WOTUS. Notwithstanding its inclusion on the list below, the status of a particular water in this table can be contested by a person in an enforcement or permit proceeding, a challenge to an identification as an impaired water, or a challenge to a proposed TMDL for an impaired water. Any changes to Table C will be made through formal rulemaking.

The waters on this list have their designated uses assigned by Title 18, Chapter 11, Article 1. Coordinates are from the North American Datum of 1983 (NAD83). All latitudes in Arizona are north and all longitudes are west, but the negative signs are not included in the Historically Regulated as WOTUS and in Need of Confirmation Table. Some web-based mapping systems require a negative sign before the longitude values to indicate it is a west longitude.

Watersheds:

BW = Bill Williams
CG = Colorado – Grand Canyon
CL = Colorado – Lower Gila
LC = Little Colorado
MG = Middle Gila
SC = Santa Cruz – Rio Magdelena – Rio Sonoyta
SP = San Pedro – Willcox Playa – Rio Yaqui
SR = Salt River
UG = Upper Gila
VR = Verde River

Other Abbreviations:

WWTP = Wastewater Treatment Plant
Km = kilometers

Watershed	Surface Water	Segment Description and Location (Latitude and Longitudes are in NAD 83)
BW	Alamo Lake	34°14'06"/113°35'00"
BW	Bill Williams River	Alamo Lake to confluence with Colorado River
BW	Blue Tank	34°40'14"/112°58'17"
BW	Boulder Creek	Headwaters to confluence with unnamed tributary at 34°41'13"/113°03'37"
BW	Burro Creek	Below confluence with Boulder Creek to confluence with Big Sandy River
BW	Burro Creek (OAW)	Headwaters to confluence with Boulder Creek
BW	Carter Tank	34°52'27"/112°57'31"
BW	Conger Creek	Headwaters to confluence with unnamed tributary at 34°45'15"/113°05'46"
BW	Conger Creek	Below confluence with unnamed tributary to confluence with Burro Creek
BW	Copper Basin Wash	Headwaters to confluence with unnamed tributary at 34°28'12"/112°35'33"
BW	Copper Basin Wash	Below confluence with unnamed tributary to confluence with Skull Valley Wash
BW	Cottonwood Canyon	Headwaters to Bear Trap Spring
BW	Cottonwood Canyon	Below Bear Trap Spring to confluence at Sycamore Creek
BW	Date Creek	Headwaters to confluence with Santa Maria River
BW	Knight Creek	Headwaters to confluence with Big Sandy River
BW	Peoples Canyon (OAW)	Headwaters to confluence with Santa Maria River
BW	Red Lake	35°12'18"/113°03'57"
BW	Santa Maria River	Headwaters to Alamo Lake
BW	Trout Creek	Headwaters to confluence with unnamed tributary at 35°06'47"/113°13'01"
CG	Agate Canyon	Headwaters to confluence with the Colorado River
CG	Big Springs Tank	36°36'08"/112°21'01"
CG	Boucher Creek	Headwaters to confluence with the Colorado River
CG	Bright Angel Wash	Headwaters to Grand Canyon National Park South Rim WWTP outfall at 36°02'59"/112°09'02"
CG	Bright Angel Wash (EDW)	Grand Canyon National Park South Rim WWTP outfall to Coconino Wash
CG	Bulrush Canyon Wash	Headwaters to confluence with Kanab Creek
CG	Cataract Creek	Headwaters to Santa Fe Reservoir
CG	Cataract Creek	Santa Fe Reservoir to City of Williams WWTP outfall at 35°14'40"/112°11'18"
CG	Cataract Creek	Red Lake Wash to Havasupai Indian Reservation boundary
CG	Cataract Creek (EDW)	City of Williams WWTP outfall to 1 km downstream
CG	Cataract Lake	35°15'04"/112°12'58"
CG	Chuar Creek	Headwaters to confluence with unnamed tributary at 36°11'35"/111°52'20"
CG	Chuar Creek	Below unnamed tributary to confluence with the Colorado River
CG	City Reservoir	35°13'57"/112°11'25"
CG	Clear Creek	Headwaters to confluence with unnamed tributary at 36°07'33"/112°00'03"
CG	Clear Creek	Below confluence with unnamed tributary to confluence with Colorado River
CG	Coconino Wash (EDW)	South Grand Canyon Sanitary District Tusayan WRF outfall at 35°58'39"/112°08'25" to 1 km downstream
CG	Crystal Creek	Headwaters to confluence with unnamed tributary at 36°13'41"/112°11'49"
CG	Deer Creek	Headwaters to confluence with unnamed tributary at 36°26'15"/112°28'20"
CG	Detrital Wash	Headwaters to Lake Mead
CG	Dogtown Reservoir	35°12'40"/112°07'54"
CG	Dragon Creek	Headwaters to confluence with Milk Creek
CG	Dragon Creek	Below confluence with Milk Creek to confluence with Crystal Creek
CG	Gonzalez Lake	35°15'26"/112°12'09"
CG	Grand Wash	Headwaters to Colorado River
CG	Grapevine Creek	Headwaters to confluence with the Colorado River
CG	Grapevine Wash	Headwaters to Colorado River
CG	Hakatai Canyon	Headwaters to confluence with the Colorado River
CG	Hance Creek	Headwaters to confluence with the Colorado River
CG	Hermit Creek	Headwaters to Hermit Pack Trail crossing at 36°03'38"/112°14'00"
CG	Horn Creek	Headwaters to confluence with the Colorado River

CG	Hualapai Wash	Headwaters to Lake Mead
CG	Jacob Lake	36°42'27"/112°13'50"
CG	Kaibab Lake	35°17'04"/112°09'32"
CG	Kwagunt Creek	Headwaters to confluence with unnamed tributary at 36°13'37"/111°54'50"
CG	Kwagunt Creek	Below confluence with unnamed tributary to confluence with the Colorado River
CG	Lonetree Canyon Creek	Headwaters to confluence with the Colorado River
CG	Matkatamiba Creek	Below Havasupai Indian Reservation boundary to confluence with the Colorado River
CG	Monument Creek	Headwaters to confluence with the Colorado River
CG	Nankoweap Creek	Below confluence with unnamed tributary to confluence with Colorado River
CG	National Canyon Creek	Headwaters to Hualapai Indian Reservation boundary at 36°15'15"/112°52'34"
CG	North Canyon Creek	Headwaters to confluence with unnamed tributary at 36°33'58"/111°55'41"
CG	North Canyon Creek	Below confluence with unnamed tributary to confluence with Colorado River
CG	Olo Canyon	Headwaters to confluence with the Colorado River
CG	Parashant Canyon	Headwaters to confluence with unnamed tributary at 36°21'02"/113°27'56"
CG	Parashant Canyon	Below confluence with unnamed tributary to confluence with the Colorado River
CG	Phantom Creek	Headwaters to confluence with unnamed tributary at 36°09'29"/112°08'13"
CG	Red Canyon Creek	Headwaters to confluence with the Colorado River
CG	Roaring Springs	36°11'45"/112°02'06"
CG	Roaring Springs Creek	Headwaters to confluence with Bright Angel Creek
CG	Royal Arch Creek	Headwaters to confluence with the Colorado River
CG	Ruby Canyon	Headwaters to confluence with the Colorado River
CG	Russell Tank	35°52'21"/111°52'45"
CG	Saddle Canyon Creek	Headwaters to confluence with unnamed tributary at 36°21'36"/112°22'43"
CG	Saddle Canyon Creek	Below confluence with unnamed tributary to confluence with Colorado River
CG	Santa Fe Reservoir	35°14'31"/112°11'10"
CG	Sapphire Canyon	Headwaters to confluence with the Colorado River
CG	Serpentine Canyon	Headwaters to confluence with the Colorado River
CG	Shinumo Creek	Headwaters to confluence with unnamed tributary at 36°18'18"/112°18'07"
CG	Slate Creek	Headwaters to confluence with the Colorado River
CG	Spring Canyon Creek	Headwaters to confluence with the Colorado River
CG	Trail Canyon Creek	Headwaters to confluence with the Colorado River
CG	Transept Canyon	Headwaters to Grand Canyon National Park North Rim WWTP outfall at 36°12'20"/112°03'35"
CG	Transept Canyon	From 1 km downstream of the Grand Canyon National Park North Rim WWTP outfall to confluence with Bright Angel Creek
CG	Transept Canyon (EDW)	Grand Canyon National Park North Rim WWTP outfall to 1 km downstream
CG	Travertine Canyon Creek	Headwaters to confluence with the Colorado River
CG	Turquoise Canyon	Headwaters to confluence with the Colorado River
CG	Unkar Creek	Below confluence with unnamed tributary at 36°07'54"/111°54'06" to confluence with Colorado River
CG	Unnamed Wash to Cedar Canyon (EDW)	Grand Canyon National Park Desert View WWTP outfall at 36°02'06"/111°49'13" to confluence with Cedar Canyon
CG	Unnamed Wash to Spring Valley Wash (EDW)	Valle Airpark WRF outfall at 35°38'34"/112°09'22" to confluence with Spring Valley Wash
CG	Vishnu Creek	Headwaters to confluence with the Colorado River
CG	Warm Springs Creek	Headwaters to confluence with the Colorado River
CG	West Cataract Creek	Headwaters to confluence with Cataract Creek
CL	Columbus Wash	Headwaters to confluence with the Gila River
CL	Holy Moses Wash	Headwaters to City of Kingman Downtown WWTP outfall at 35°10'33"/114°03'46"
CL	Holy Moses Wash	From 3 km downstream of City of Kingman Downtown WWTP outfall to confluence with Sawmill Wash
CL	Holy Moses Wash (EDW)	City of Kingman Downtown WWTP outfall to 3 km downstream
CL	Mohave Wash	Headwaters to Lower Colorado River
CL	Painted Rock (Borrow Pit) Lake	33°04'55"/113°01'17"
CL	Quigley Pond	32°43'40"/113°57'44"
CL	Redondo Lake	32°44'32"/114°29'03"
CL	Sacramento Wash	Headwaters to Topock Marsh
CL	Sawmill Canyon	Headwaters to abandoned gaging station at 35°09'45"/113°57'56"
CL	Sawmill Canyon	Below abandoned gaging station to confluence with Holy Moses Wash
CL	Tyson Wash (EDW)	Town of Quartzsite WWTP outfall at 33°42'39"/ 114°13'10" to 1 km downstream
CL	Wellton Canal	Wellton-Mohawk Irrigation District
CL	Yuma Area Canals	Above municipal water treatment plant intakes
CL	Yuma Area Canals	Below municipal water treatment plant intakes and all drains
LC	Ais Lake	35°02'10"/111°25'17"
LC	Ashurst Lake	35°01'06"/111°24'18"
LC	Atcheson Reservoir	33°59'59"/109°20'43"
LC	Barbershop Canyon Creek	Headwaters to confluence with East Clear Creek
LC	Bear Canyon Creek	Headwaters to confluence with General Springs Canyon
LC	Bear Canyon Creek	Headwaters to confluence with Willow Creek
LC	Bear Canyon Lake	34°24'00"/111°00'06"
LC	Becker Lake	34°09'11"/109°18'23"
LC	Billy Creek	Headwaters to confluence with Show Low Creek
LC	Black Canyon	Headwaters to confluence with Chevelon Creek
LC	Bow and Arrow Wash	Headwaters to confluence with Rio de Flag
LC	Buck Springs Canyon Creek	Headwaters to confluence with Leonard Canyon Creek
LC	Bunch Reservoir	34°02'20"/109°26'48"
LC	Carrero Lake	34°06'57"/109°31'42"
LC	Chevelon Creek, West Fork	Headwaters to confluence with Chevelon Creek
LC	Chilson Tank	34°51'43"/111°22'54"
LC	Coconino Reservoir	35°00'05"/111°24'10"
LC	Colter Creek	Headwaters to confluence with Nutrioso Creek
LC	Concho Creek	Headwaters to confluence with Carrizo Wash
LC	Concho Lake	34°26'37"/109°37'40"
LC	Cow Lake	34°53'14"/111°18'51"
LC	Crisis Lake (Snake Tank #2)	34°47'51"/111°17'32"
LC	Dane Canyon Creek	Headwaters to confluence with Barbershop Canyon Creek

LC	Daves Tank	34°44'22"/111°17'15"
LC	Deep Lake	35°03'34"/111°25'00"
LC	Ducksnest Lake	34°59'14"/111°23'57"
LC	Estates at Pine Canyon lakes (EDW)	35°09'32"/111°38'26"
LC	Fish Creek	Headwaters to confluence with the Little Colorado River
LC	General Springs Canyon Creek	Headwaters to confluence with East Clear Creek
LC	Geneva Reservoir	34°01'45"/109°31'46"
LC	Hall Creek	Headwaters to confluence with the Little Colorado River
LC	Hart Canyon Creek	Headwaters to confluence with Willow Creek
LC	Hay Lake	34°00'11"/109°25'57"
LC	Hog Wallow Lake	33°58'57"/109°25'39"
LC	Horse Lake	35°03'55"/111°27'50"
LC	Hulsey Creek	Headwaters to confluence with Nutrioso Creek
LC	Hulsey Lake	33°56'58"/109°09'40"
LC	Humphrey Lake (EDW)	35°11'51"/111°35'19"
LC	Indian Lake	35°00'39"/111°22'41"
LC	Jacks Canyon	Headwaters to confluence with the Little Colorado River
LC	Jarvis Lake	33°58'59"/109°12'36"
LC	Kinnikinick Lake	34°53'53"/111°18'18"
LC	Knoll Lake	34°25'38"/111°05'13"
LC	Lake Mary, Lower	35°06'21"/111°34'38"
LC	Lake Mary, Upper	35°03'23"/111°28'34"
LC	Lake of the Woods	34°09'40"/109°58'47"
LC	Lee Valley Creek (OAW)	Headwaters to Lee Valley Reservoir
LC	Lee Valley Reservoir	33°56'29"/109°30'04"
LC	Leonard Canyon Creek	Headwaters to confluence with Clear Creek
LC	Leonard Canyon Creek, East Fork	Headwaters to confluence with Leonard Canyon Creek
LC	Leonard Canyon Creek, Middle Fork	Headwaters to confluence with Leonard Canyon, West Fork
LC	Leonard Canyon Creek, West Fork	Headwaters to confluence with Leonard Canyon, East Fork
LC	Leroux Wash, tributary to Little Colorado River	From City of Holbrook-Painted Mesa WRF outfall at 34° 54' 30", -110° 11' 36" to Little Colorado River. The outfall discharges into Leroux Wash. All reaches of the Little Colorado River between the outfall to the Colorado River are perennial or intermittent.
LC	Little Colorado River, West Fork (OAW)	Headwaters to Government Springs
LC	Little George Reservoir	34°00'37"/109°19'15"
LC	Little Mormon Lake	34°17'00"/109°58'06"
LC	Long Lake, Lower	34°47'16"/111°12'40"
LC	Long Lake, Upper	35°00'08"/111°21'23"
LC	Long Tom Tank	34°20'35"/110°49'22"
LC	Lower Walnut Canyon Lake (EDW)	35°12'04"/111°34'07"
LC	Marshall Lake	35°07'18"/111°32'07"
LC	McKay Reservoir	34°01'27"/109°13'48"
LC	Merritt Draw Creek	Headwaters to confluence with Barbershop Canyon Creek
LC	Mexican Hay Lake	34°01'58"/109°21'25"
LC	Milk Creek	Headwaters to confluence with Hulsey Creek
LC	Miller Canyon Creek	Headwaters to confluence with East Clear Creek
LC	Miller Canyon Creek, East Fork	Headwaters to confluence with Miller Canyon Creek
LC	Morton Lake	34°53'37"/111°17'41"
LC	Mud Lake	34°55'19"/111°21'29"
LC	Ned Lake (EDW)	34°17'17"/110°03'22"
LC	Norton Reservoir	34°03'57"/109°31'27"
LC	Paddy Creek	Headwaters to confluence with Nutrioso Creek
LC	Pierce Seep	34°23'39"/110°31'17"
LC	Pine Tank	34°46'49"/111°17'21"
LC	Pintail Lake (EDW)	34°18'05"/110°01'21"
LC	Puerco River	Headwaters to confluence with the Little Colorado River
LC	Puerco River (EDW)	Sanders Unified School District WWTP outfall at 35°12'52"/109°19'40" to 0.5 km downstream
LC	Rainbow Lake	34°09'00"/109°59'09"
LC	Reagan Reservoir	34°02'09"/109°08'41"
LC	Rio de Flag (EDW)	From City of Flagstaff WWTP outfall to the confluence with San Francisco Wash
LC	River Reservoir	34°02'01"/109°26'07"
LC	Rogers Reservoir	33°56'30"/109°16'20"
LC	Russel Reservoir	33°59'29"/109°20'01"
LC	San Salvador Reservoir	33°58'51"/109°19'55"
LC	Slade Reservoir	33°59'41"/109°20'26"
LC	Soldiers Annex Lake	34°47'15"/111°13'51"
LC	Soldiers Lake	34°47'47"/111°14'04"
LC	Spaulding Tank	34°30'17"/111°02'06"
LC	St Johns Reservoir (Little Reservoir)	34°29'10"/109°22'06"
LC	Telephone Lake (EDW)	34°17'35"/110°02'42"
LC	Tremaine Lake	34°46'02"/111°13'51"
LC	Tunnel Reservoir	34°01'53"/109°26'34"
LC	Turkey Draw (EDW)	High Country Pines II WWTP outfall at 33°25'35"/ 110°38'13" to confluence with Black Canyon Creek
LC	Unnamed Wash to Pierce Wash (EDW)	Bison Ranch WWTP outfall at 34°23'31"/110°31'29" to Pierce Seep
LC	Unnamed wash, tributary to Rio de Flag River (Bow and Arrow Wash)	Treated municipal wastewater is piped from the Rio de Flag WWTP through a city-wide reuse system to the main effluent storage pond that is in an unnamed wash.
LC	Walnut Creek	Headwaters to confluence with Billy Creek
LC	Water Canyon Creek	Headwaters to confluence with the Little Colorado River
LC	Whale Lake (EDW)	35°11'13"/111°35'21"
LC	Whipple Lake	34°16'49"/109°58'29"
LC	White Mountain Reservoir	34°00'12"/109°30'39"
LC	Willow Creek	Headwaters to confluence with Clear Creek
LC	Willow Springs Canyon Creek	Headwaters to confluence with Chevelon Creek

LC	Willow Springs Lake	34°18'13"/110°52'16"
LC	Woodland Reservoir	34°07'35"/109°57'01"
LC	Woods Canyon Creek	Headwaters to confluence with Chevelon Creek
LC	Woods Canyon Lake	34°20'09"/110°56'45"
MG	Agua Fria River	Headwaters to confluence with unnamed tributary at 34°35'14"/112°16'18"
MG	Agua Fria River	Below Lake Pleasant to the City of El Mirage WWTP at ' 33°34'20"/112°18'32"
MG	Agua Fria River	Below 2 km downstream of the City of El Mirage WWTP to City of Avondale WWTP outfall at 33°23'55"/112°21'16"
MG	Agua Fria River	From City of Avondale WWTP outfall to confluence with Gila River
MG	Agua Fria River (EDW)	Below confluence with unnamed tributary to State Route 169
MG	Agua Fria River (EDW)	From City of El Mirage WWTP outfall to 2 km downstream
MG	Andorra Wash	Headwaters to confluence with Cave Creek Wash
MG	Antelope Creek	Headwaters to confluence with Martinez Creek
MG	Arlington Canal	From Gila River at 33°20'54"/112°35'39" to Gila River at 33°13'44"/112°46'15"
MG	Arnett Creek	Headwaters to Queen Creek @ 33°16'43.24"/111°10'12.49"
MG	Ash Creek	Headwaters to confluence with Tex Canyon
MG	Beehive Tank	32°52'37"/111°02'20"
MG	Big Bug Creek	Headwaters to confluence with Eugene Gulch
MG	Big Bug Creek	Below confluence with Eugene Gulch to confluence with Agua Fria River
MG	Black Canyon Creek	Headwaters to confluence with the Agua Fria River
MG	Blind Indian Creek	Headwaters to confluence with the Hassayampa River
MG	Cash Gulch	Headwaters to Jersey Gulch @ 34°25'31.39"/112°25'30.96"
MG	Cave Creek	Headwaters to the Cave Creek Dam
MG	Cave Creek	Cave Creek Dam to the Arizona Canal
MG	Centennial Wash	Headwaters to confluence with the Gila River at 33°16'32"/112°48'08"
MG	Centennial Wash Ponds	33°54'52"/113°23'47"
MG	Chaparral Park Lake	Hayden Road & Chaparral Road, Scottsdale at 33°30'40"/111°54'27"
MG	Corgett Wash	From Corgett Wash WRF outfall at 33°21'42", -112°27'05" to Gila River. The discharge point is 0.5 miles from the ephemeral convey-ance Corgett Wash. The Gila River is then 1.5 miles downstream from Corgett Wash.
MG	Devils Canyon	Headwaters to confluence with Mineral Creek
MG	Eldorado Park Lake	Miller Road & Oak Street, Tempe at 33°28'25"/ 111°54'53"
MG	Eugene Gulch	Headwaters to Big Bug Creek @ 34°27'11.51"/112°18'30.95"
MG	French Gulch	Headwaters to confluence with Hassayampa River
MG	Galena Gulch	Headwaters to confluence with the Agua Fria River
MG	Galloway Wash (EDW)	Town of Cave Creek WWTP outfall at 33°50'15"/ 111°57'35" to confluence with Cave Creek
MG	Gila River	Ashurst-Hayden Dam to the Town of Florence WWTP outfall at 33°02'20"/111°24'19"
MG	Gila River	Felix Road to the Gila River Indian Reservation boundary
MG	Gila River	Gillespie Dam to confluence with Painted Rock Dam
MG	Gila River (EDW)	Town of Florence WWTP outfall to Felix Road
MG	Groom Creek	Headwaters to confluence with the Hassayampa River
MG	Hassayampa River	Below confluence with unnamed tributary to confluence with unnamed tributary at 33°51'52"/112°39'56".
MG	Hassayampa River	Below Buckeye Irrigation Company canal to the Gila River
MG	Hassayampa River	From City of Buckeye-Palo Verde Road WWTP outfall at 33° 23' 54.3", -112° 40' 33.7" to Buckeye Canal
MG	Horsethief Lake	34°09'42"/112°17'57"
MG	Indian Bend Wash	Headwaters to confluence with the Salt River
MG	Indian Bend Wash Lakes	Scottsdale at 33°30'32"/111°54'24"
MG	Indian School Park Lake	Indian School Road & Hayden Road, Scottsdale at 33°29'39"/111°54'37"
MG	Jersey Gulch	Headwaters to Hassayampa River @ 34°25'40.16"/112°25'45.64"
MG	Kiwanis Park Lake	6000 South Mill Avenue, Tempe at 33°22'27"/111°56'22"
MG	Lake Pleasant, Lower	33°50'32"/112°16'03"
MG	Lion Canyon	Headwaters to confluence with Weaver Creek
MG	Lynx Creek	Headwaters to confluence with unnamed tributary at 34°34'29"/112°21'07"
MG	Lynx Creek	Below confluence with unnamed tributary at 34°34'29"/112°21'07" to confluence with Agua Fria River
MG	Lynx Lake	34°31'07"/112°23'07"
MG	Martinez Canyon	Headwaters to confluence with Box Canyon
MG	Martinez Creek	Headwaters to confluence with the Hassayampa River
MG	McKellips Park Lake	Miller Road & McKellips Road, Scottsdale at 33°27'14"/111°54'49"
MG	McMicken Wash (EDW)	City of Peoria Jomax WWTP outfall at 33°43'31"/ 112°20'15" to confluence with Agua Fria River
MG	Mineral Creek	Headwaters to 33°12'34"/110°59'58"
MG	Mineral Creek	End of diversion channel to confluence with Gila River
MG	Minnehaha Creek	Headwaters to confluence with the Hassayampa River
MG	Money Metals Trib	Headwaters to Unnamed Trib (UB1)
MG	New River	Headwaters to Interstate 17 at 33°54'19.5"/112°08'46"
MG	New River	Below Interstate 17 to confluence with Agua Fria River
MG	Painted Rock Reservoir	33°04'23"/113°00'38"
MG	Papago Park Ponds	Galvin Parkway, Phoenix at 33°27'15"/111°56'45"
MG	Perry Mesa Tank	34°11'03"/112°02'01"
MG	Phoenix Area Canals	Granite Reef Dam to all municipal WTP intakes
MG	Phoenix Area Canals	Below municipal WTP irrtakes and all other locations
MG	Picacho Reservoir	32°51'10"/111°28'25"
MG	Poland Creek	Headwaters to confluence with Lorena Gulch
MG	Poland Creek	Below confluence with Lorena Gulch to confluence with Black Canyon Creek
MG	Queen Creek	Headwaters to the Town of Superior WWTP outfall at 33°16'33"/111°07'44"
MG	Queen Creek	Below Potts Canyon to ' Whitlow Dam
MG	Queen Creek	Below Whitlow Dam to confluence with Gila River
MG	Queen Creek (EDW)	Below Town of Superior WWTP outfall to confluence with Potts Canyon
MG	Salt River	2 km below Granite Reef Dam to City of Mesa NW WRF outfall at 33°26'22"/111°53'14"
MG	Salt River	Below Tempe Town Lake to Interstate 10 bridge
MG	Salt River	Below Interstate 10 bridge to the City of Phoenix 23rd Avenue WWTP outfall at 33°24'44"/ 112°07'59"
MG	Salt River (EDW)	City of Mesa NW WRF outfall to Tempe Town Lake
MG	Salt River (EDW)	From City of Phoenix 23rd Avenue WWTP outfall to confluence with Gila River
MG	Siphon Draw (EDW)	Superstition Mountains CFD WWTP outfall at 33°21'40"/111°33'30" to 6 km downstream

MG	Sycamore Creek	Headwaters to confluence with Tank Canyon
MG	Sycamore Creek	Below confluence with Tank Canyon to confluence with Agua Fria River
MG	The Lake Tank	32°54'14"/111°04'15"
MG	Tule Creek	Headwaters to confluence with the Agua Fria River
MG	Turkey Creek	Below confluence with unnamed tributary to confluence with Poland Creek
MG	Unnamed Trib (UQ2) to Queen Creek	Headwaters to Queen Creek @ 33°18'26.15"/111°04'19.3"
MG	Unnamed Trib (UQ3) to Queen Creek	Headwaters to Queen Creek @ 33°18'33.75"/111°04'02.61"
MG	Unnamed Trib to Big Bug Creek (UB1)	Headwaters to Big Bug Creek @ 34°25'38.86"/112°22'29.32"
MG	Unnamed Trib to Eugene Gulch	Headwaters to Eugene Gulch @ 34°27'34.6"/112°20'24.53"
MG	Unnamed Trib to Lynx Creek	Headwaters to Superior Mining Div. Outfall @ Lynx Creek @ 34°27'10.57"/112°23'14.22"
MG	Unnamed tributary to Deadman's Wash	From EPCOR Water Anthem Water Campus WWTP outfall at 33° 50' 47.9", -112° 08' 25.6" to Deadman's Wash
MG	Unnamed tributary to Gila River (EDW)	Gila Bend WWTP outfall to confluence with the Gila River
MG	Unnamed tributary to Gila River (EDW)	North Florence WWTP outfall at 33°03'50"/ 111°23'13" to confluence with Gila River
MG	Unnamed tributary to the Agua Fria River	From Softwinds WWTP outfall at 34° 32' 43", -112° 14' 21" to the Agua Fria River. Discharges to Agua Fria which is a jurisdictional tributary to Lake Pleasant (TNW)
MG	Unnamed tributary to Winters Wash	From Balterra WWTP outfall at 33° 29' 45", -112° 55' 10" to Winters Wash
MG	Unnamed Wash (EDW)	Luke Air Force Base WWTP outfall at 33°32'21"/112°19'15" to confluence with the Agua Fria River
MG	Unnamed Wash (EDW)	Town of Prescott Valley WWTP outfall at 34°35'16"/ 112°16'18" to confluence with the Agua Fria River
MG	Unnamed Wash (EDW)	Town of Cave Creek WRF outfall at 33°48'02"/ 111°59'22" to confluence with Cave Creek
MG	Unnamed wash, tributary to Black Canyon Creek	From Black Canyon Ranch RV Resort WWTP outfall to Agua Fria River.
MG	Unnamed wash, tributary to Queen Creek	Queen Creek, AZ15050100-013B is closest WBID to outfall coordinates
MG	Unnamed wash, tributary to Waterman Wash	The Rainbow Valley outfall discharges to an unnamed wash to Waterman wash to the Gila River.
MG	Wagner Wash (EDW)	City of Buckeye Festival Ranch WRF outfall at 33°39'14"/112°40'18" to 2 km downstream
MG	Walnut Canyon Creek	Headwaters to confluence with the Gila River
MG	Weaver Creek	Headwaters to confluence with Antelope Creek, tributary to Martinez Creek
MG	White Canyon	Headwaters to confluence with Walnut Canyon Creek
MG	Yavapai Lake (EDW)	Town of Prescott Valley WWTP outfall 002 at 34°36'07"/112°18'48" to Navajo Wash
SC	Agua Caliente Lake	12325 East Roger Road, Tucson 32°16'51"/ 110°43'52"
SC	Agua Caliente Wash	Headwaters to confluence with Soldier Trail
SC	Agua Caliente Wash	Below Soldier Trail to confluence with Tanque Verde Creek
SC	Aguirre Wash	From the Tohono O'odham Indian Reservation boundary to 32°28'38"/111°46'51"
SC	Alambre Wash	Headwaters to confluence with Brawley Wash
SC	Alamo Wash	Headwaters to confluence with Rillito Creek
SC	Altar Wash	Headwaters to confluence with Brawley Wash
SC	Alum Gulch	Headwaters to 31°28'20"/110°43'51"
SC	Alum Gulch	From 31°28'20"/110°43'51" to 31°29'17"/110°44'25"
SC	Arivaca Creek	Headwaters to confluence with Altar Wash
SC	Arivaca Lake	31°31'52"/111°15'06"
SC	Atterbury Wash	Headwaters to confluence with Pantano Wash
SC	Bear Grass Tank	31°33'01"/111°11'03"
SC	Big Wash	Headwaters to confluence with Cañada del Oro
SC	Black Wash (EDW)	Pima County WWMD Avra Valley WWTP outfall at 32°09'58"/111°11'17" to confluence with Brawley Wash
SC	Bog Hole Tank	31°28'36"/110°37'09"
SC	Brawley Wash	Headwaters to confluence with Los Robles Wash
SC	Cañada del Oro	Headwaters to State Route 77
SC	Cañada del Oro	Below State Route 77 to confluence with the Santa Cruz River
SC	Cienega Creek	Headwaters to confluence with Gardner Canyon
SC	Davidson Canyon	Headwaters to unnamed spring at 31°59'00"/ 110°38'49"
SC	Davidson Canyon (OAW)	From unnamed Spring to confluence with unnamed tributary at 31°59'09"/110°38'44"
SC	Davidson Canyon (OAW)	Below confluence with unnamed tributary to unnamed spring at 32°00'40"/110°38'36"
SC	Davidson Canyon (OAW)	From unnamed spring to confluence with Cienega Creek
SC	Empire Gulch	Headwaters to unnamed spring at 31°47'18"/ 110°38'17"
SC	Empire Gulch	From 31°47'18"/110°38'17" to 31°47'03"/110°37'35"
SC	Empire Gulch	From 31°47'03"/110°37'35" to 31°47'05"/ 110°36'58"
SC	Empire Gulch	From 31°47'05"/110°36'58" to confluence with Cienega Creek
SC	Flux Canyon	Headwaters to confluence with Alum Gulch
SC	Gardner Canyon Creek	Headwaters to confluence with Sawmill Canyon
SC	Gardner Canyon Creek	Below Sawmill Canyon to confluence with Cienega Creek
SC	Greene Wash	Santa Cruz River to the Tohono O'odham Indian Reservation boundary
SC	Greene Wash	Tohono O'odham Indian Reservation boundary to confluence with Santa Rosa Wash at 32°53'52"/ 111°56'48"
SC	Harshaw Creek	Headwaters to confluence with Sonoita Creek at
SC	Hit Tank	32°43'57"/111°03'18"
SC	Holden Canyon Creek	Headwaters to U.S./Mexico border
SC	Huachuca Tank	31°21'11"/110°30'18"
SC	Humboldt Canyon	Headwaters to Alum Gulch @ 31°28'25.84"/110°44'01.57"
SC	Julian Wash	Headwaters to confluence with the Santa Cruz River
SC	Kennedy Lake	Mission Road & Ajo Road, Tucson at 32°10'49"/ 111°00'27"
SC	Lakeside Lake	8300 East Stella Road, Tucson at 32°11'11"/ 110°49'00"
SC	Lemmon Canyon Creek	Headwaters to confluence with unnamed tributary at 32°23'48"/110°47'49"
SC	Lemmon Canyon Creek	Below unnamed tributary at 32°23'48"/110°47'49" to confluence with Sabino Canyon Creek
SC	Los Robles Wash	Headwaters to confluence with the Santa Cruz River
SC	Madera Canyon Creek	Headwaters to confluence with unnamed tributary at 31°43'42"/110°52'51"
SC	Madera Canyon Creek	Below unnamed tributary at 31°43'42"/110°52'51 to confluence with the Santa Cruz River
SC	Mattie Canyon	Headwaters to confluence with Cienega Creek
SC	Oak Tree Canyon	Headwaters to confluence with Cienega Creek
SC	Palisade Canyon	Headwaters to confluence with unnamed tributary at 32°22'33"/110°45'31"
SC	Palisade Canyon	Below 32°22'33"/110°45'31" to unnamed tributary of Sabino Canyon
SC	Pantano Wash	Headwaters to confluence with Tanque Verde Creek
SC	Parker Canyon Creek	Headwaters to confluence with unnamed tributary at 31°24'17"/110°28'47"
SC	Parker Canyon Lake	31°25'35"/110°27'15"
SC	Patagonia Lake	31°29'56"/110°50'49"

SC	Peña Blanca Lake	31°24'15"/111°05'12"
SC	Potrero Creek	Headwaters to Interstate 19
SC	Potrero Creek	Below Interstate 19 to confluence with Santa Cruz River
SC	Puertocito Wash	Headwaters to confluence with Altar Wash
SC	Quitobaquito Spring	(Pond and Springs) 31°56'39"/113°01'06"
SC	Redrock Canyon Creek	Headwaters to confluence with Harshaw Creek
SC	Rillito Creek	Headwaters to confluence with the Santa Cruz River
SC	Romero Canyon Creek	Headwaters to confluence with unnamed tributary at 32°24'29"/110°50'39"
SC	Rose Canyon Creek	Headwaters to confluence with Sycamore Canyon
SC	Rose Canyon Lake	32°23'13"/110°42'38"
SC	Ruby Lakes	31°26'29"/111°14'22"
SC	Sabino Creek	Headwaters to 32°23'20"/110°47'06"
SC	Sabino Creek	Below 32°23'20"/110°47'06" to confluence with Tanque Verde River
SC	Salero Ranch Tank	31°35'43"/110°53'25"
SC	Santa Cruz River	Headwaters to the at U.S./Mexico border
SC	Santa Cruz River	Baumgartner Road to the Ak Chin Indian Reservation boundary
SC	Santa Cruz River (EDW)	Nogales International WWTP outfall to the Tubac Bridge
SC	Santa Cruz River, West Branch	Headwaters to the confluence with Santa Cruz River
SC	Santa Cruz Wash, North Branch	Headwaters to City of Casa Grande WRF outfall at 32°54'57"/111°47'13"
SC	Santa Cruz Wash, North Branch (EDW)	City of Casa Grande WRF outfall to 1 km downstream
SC	Santa Rosa Wash	Below Tohono O'odham Indian Reservation to the Ak Chin Indian Reservation
SC	Santa Rosa Wash (EDW)	Palo Verde Utilities CO-WRF outfall at 33°04'20"/ 112°01'47" to the Chin Indian Reservation
SC	Soldier Tank	32°25'34"/110°44'43"
SC	Sonoita Creek	Headwaters to the Town of Patagonia WWTP outfall at 31°32'25"/110°45'31"
SC	Sonoita Creek	Below 1600 feet downstream of Town of Patagonia WWTP outfall groundwater upwelling point to confluence with the Santa Cruz River
SC	Split Tank	31°28'11"/111°05'12"
SC	Sutherland Wash	Headwaters to confluence with Cañada del Oro
SC	Sycamore Canyon	Headwaters to 32°21'60" / 110°44'48"
SC	Sycamore Canyon	From 32°21'60" / 110°44'48" to Sycamore Reservoir
SC	Sycamore Reservoir	32°20'57/110°47'38"
SC	Tanque Verde Creek	Headwaters to Houghton Road
SC	Tanque Verde Creek	Below Houghton Road to confluence with Rillito Creek
SC	Three R Canyon	Headwaters to Unnamed Trib to Three R Canyon at 31°28'26"/110°46'04"
SC	Three R Canyon	From 31°28'26"/110°46'04" to 31°28'28"/110°47'15" (Cox Gulch)
SC	Three R Canyon	From (Cox Gulch) 31°28'28"/110°47'15" to confluence with Sonoita Creek
SC	Tinaja Wash	Headwaters to confluence with the Santa Cruz River
SC	Unnamed Trib (Endless Mine Tributary) to Harshaw Creek	Headwaters to Harshaw Creek @ 31°26'12.3"/110°43'27.26"
SC	Unnamed Trib (UA2) to Alum Gulch	Headwaters to Alum Gulch @ 31°28'49.67"/110°44'12.86"
SC	Unnamed Trib to Cox Gulch	Headwaters to Cox Gulch @ 31°27'53.86"/110°46'51.29"
SC	Unnamed Trib to Three R Canyon	Headwaters to Three R Canyon @ 31°28'25.82"/110°46'04.11"
SC	Unnamed Wash to Canada Del Oro (EDW)	Oracle Sanitary District WWTP outfall at 32°36'54"/ 110°48'02" to 5 km downstream
SC	Unnamed Wash to Canada del Oro (EDW)	Saddlebrook WWTP outfall at 32°32'00"/110°53'01" to confluence with Cañada del Oro
SC	Unnamed Wash to Santa Cruz Wash (EDW)	Arizona City Sanitary District WWTP outfall at 32°45'43"/111°44'24" to confluence with Santa Cruz Wash
SC	Veikol Wash	Headwater to Santa Cruz Wash: Those reaches not located on the Ak-Chin, Tohono O'odham and Gila River Indian Reservations
SC	Wakefield Canyon	Headwaters to confluence with unnamed tributary at 31°52'48"/110°26'27"
SC	Wakefield Canyon	Below confluence with unnamed tributary to confluence with Cienega Creek
SC	Wild Burro Canyon	Headwaters to confluence with unnamed tributary at 32°27'43"/111°05'47"
SC	Wild Burro Canyon	Below confluence with unnamed tributary to confluence with Santa Cruz River
SP	Abbot Canyon	Headwaters to confluence with Whitewater Draw
SP	Aravaipa Creek	Headwaters to confluence with Stowe Gulch
SP	Ash Creek	Headwaters to 31°50'28"/109°40'04"
SP	Babocomari River	Headwaters to confluence with the San Pedro River
SP	Bass Canyon Creek	Headwaters to confluence with unnamed tributary at 32°26'06"/110°13'22"
SP	Bass Canyon Tank	32°24'00"/110°13'00"
SP	Blacktail Pond	Fort Huachuca Military Reservation at 31°31'04"/110°24'47", headwater lake in Blacktail Canyon
SP	Booger Canyon	Headwaters to confluence with Aravaipa Creek
SP	Brewery Gulch	Headwaters to Mule Gulch @ 31°26'27.88"/109°54'48.1"
SP	Buck Canyon	Headwaters to confluence with Buck Creek Tank
SP	Buck Canyon	Below Buck Creek Tank to confluence with Dry Creek
SP	Buehman Canyon Creek	Below confluence with unnamed tributary to confluence with San Pedro River
SP	Buehman Canyon Creek (OAW)	Headwaters to confluence with unnamed tributary at 32°24'54"/110°32'10"
SP	Bullock Canyon	Headwaters to confluence with Buehman Canyon
SP	Carr Canyon Creek	Below confluence with unnamed tributary to confluence with the San Pedro River
SP	Copper Creek	Headwaters to confluence with Prospect Canyon
SP	Copper Creek	Below confluence with Prospect Canyon to confluence with the San Pedro River
SP	Curry Draw	Headwaters to San Pedro River
SP	Deer Creek	Headwaters to confluence with unnamed tributary at 32°59'57"/110°20'11"
SP	Deer Creek	Below confluence with unnamed tributary to confluence with Aravaipa Creek
SP	Dixie Canyon	Headwaters to confluence with Mexican Canyon
SP	Double R Canyon Creek	Headwaters to confluence with Bass Canyon
SP	Dry Canyon	Headwaters to confluence with Whitewater draw
SP	East Gravel Pit Pond	Fort Huachuca Military Reservation at 31°30'54"/ 110°19'44"
SP	Espiritu Canyon Creek	Headwaters to confluence with Soza Wash
SP	Fourmile Canyon Creek	Headwaters to confluence with Aravaipa Creek
SP	Fourmile Canyon, Left Prong	Headwaters to confluence with unnamed tributary at 32°43'15"/110°23'46"
SP	Fourmile Canyon, Left Prong	Below confluence with unnamed tributary to confluence with Fourmile Canyon Creek
SP	Fourmile Canyon, Right Prong	Headwaters to confluence with Fourmile Canyon
SP	Gadwell Canyon	Headwaters to confluence with Whitewater Draw
SP	Garden Canyon Creek	Headwaters to confluence with unnamed tributary at 31°29'01"/110°19'44"
SP	Garden Canyon Creek	Below confluence with unnamed tributary to confluence with the San Pedro River

SP	Glance Creek	Headwaters to confluence with Whitewater Draw
SP	Gravel Pit Pond	Fort Huachuca Military Reservation at 31°30'52"/ 110°19'49"
SP	Greenbush Draw	From U.S./Mexico border to confluence with San Pedro River
SP	Greenbush Draw	From City of Bisbee San Jose WWTP outfall at 31° 20' 35.4", -109° 56' 10.2" to San Pedro River. The City of Bisbee San Jose WWTP outfall discharges to Greenbush Draw.
SP	Hidden Pond	Fort Huachuca Military Reservation at 32°30'30"/ 109°22'17"
SP	Horse Camp Canyon	Headwaters to confluence with Aravaipa Creek
SP	Hot Springs Canyon	Headwaters to confluence with the San Pedro River
SP	Johnson Canyon	Headwaters to Whitewater Draw at 31°32'46"/ 109°43'32"
SP	Leslie Creek	Headwaters to confluence with Whitewater Draw
SP	Lower Garden Canyon Pond	Fort Huachuca Military Reservation at 31°29'39"/ 110°18'34"
SP	Mexican Canyon	Headwaters to confluence with Dixie Canyon
SP	Miller Canyon	Headwaters to Broken Arrow Ranch Road at 31°25'35"/110°15'04"
SP	Miller Canyon	Below Broken Arrow Ranch Road to confluence with the San Pedro River
SP	Montezuma Creek	Headwaters to Mexico Border @ 31°20'01.87"/110°13'40.97"
SP	Mountain View Golf Course Pond	Fort Huachuca Military Reservation at 31°32'14"/ 110°18'52"
SP	Mule Gulch	Headwaters to the Lavender Pit at 31°26'11"/ 109°54'02"
SP	Mule Gulch	The Lavender Pit to the' Highway 80 bridge at 31°26'30"/109°49'28"
SP	Mule Gulch	Below the Highway 80 bridge to confluence with Whitewater Draw
SP	Oak Grove Canyon	Headwaters to confluence with Turkey Creek
SP	Officers Club Pond	Fort Huachuca Military Reservation at 31°32'51"/ 110°21'37"
SP	Paige Canyon Creek	Headwaters to confluence with the San Pedro River
SP	Parsons Canyon	Headwaters to confluence with Aravaipa Creek
SP	Ramsey Canyon Creek	Headwaters to Forest Service Road #110 at 31°27'44"/110°17'30"
SP	Rattlesnake Creek	Headwaters to confluence with Brush Canyon
SP	Rattlesnake Creek	Below confluence with Brush Canyon to confluence with Aravaipa Creek
SP	Redfield Canyon	Headwaters to confluence with unnamed tributary at 32°33'40"/110°18'42"
SP	Redfield Canyon	Below confluence with unnamed tributary to confluence with the San Pedro River
SP	Rucker Canyon	Headwaters to confluence with Whitewater Draw
SP	Rucker Canyon Lake	31°46'46"/109°18'30"
SP	Soto Canyon	Headwaters to confluence with Dixie Canyon
SP	Swamp Springs Canyon Creek	Headwaters to confluence with Redfield Canyon
SP	Sycamore Pond I	Fort Huachuca Military Reservation at 31°35'12"/ 110°26'11"
SP	Sycamore Pond II	Fort Huachuca Military Reservation at 31°34'39"/ 110°26'10"
SP	Turkey Creek	Headwaters to confluence with Aravaipa Creek
SP	Unnamed Wash Mt. Lemmon (EDW)	Mt. Lemmon WWTP outfall at 32°26'51"/110°45'08" to 0.25 km downstream
SP	Virgus Canyon	Headwaters to confluence with Aravaipa Creek
SP	Walnut Gulch	Headwaters to Tombstone WWTP outfall at 31°43'47"/110°04'06"
SP	Walnut Gulch	Tombstone Wash to confluence with San Pedro River
SP	Walnut Gulch (EDW)	Tombstone WWTP outfall to the confluence with Tombstone Wash
SP	Woodcutters Pond	Fort Huachuca Military Reservation at 31°30'09"/ 110°20'12"
SR	Barnhard Creek	Headwaters to confluence with unnamed tributary at 34°05'37/111°26'40"
SR	Barnhardt Creek	Below confluence with unnamed tributary to confluence with Rye Creek
SR	Basin Lake	33°55'00"/109°26'09"
SR	Bear Creek	Headwaters to confluence with the Black River
SR	Bear Wallow Creek, North Fork (OAW)	Headwaters to confluence with the Bear Wallow Creek
SR	Bear Wallow Creek, South Fork (OAW)	Headwaters to confluence with the Bear Wallow Creek
SR	Big Lake	33°52'36"/109°25'33"
SR	Bloody Tanks Wash	Headwaters to Schultze Ranch Road
SR	Bloody Tanks Wash	Schultze Ranch Road to confluence with Miami Wash
SR	Boulder Creek	Headwaters to confluence with LaBarge Creek
SR	Campaign Creek	Headwaters to Roosevelt Lake
SR	Canyon Creek	Headwaters to the White Mountain Apache Reservation boundary
SR	Centerfire Creek	Headwaters to confluence with the Black River
SR	Chambers Draw Creek	Headwaters to confluence with the North Fork of the East Fork of Black River
SR	Cherry Creek	Headwaters to confluence with unnamed tributary at 34°05'09"/110°56'07"
SR	Christopher Creek	Headwaters to confluence with Tonto Creek
SR	Cold Spring Canyon Creek	Headwaters to confluence with unnamed tributary at 33°49'50"/110°52'58"
SR	Cold Spring Canyon Creek	Below confluence with unnamed tributary to confluence with Cherry Creek
SR	Coon Creek	Headwaters to confluence with unnamed tributary at 33°46'41"/110°54'26"
SR	Coon Creek	Below confluence with unnamed tributary to confluence with Salt River
SR	Coyote Creek	Headwaters to confluence with the Black River, East Fork
SR	Deer Creek (D2E)	Headwaters to confluence with the Black River, East Fork
SR	Del Shay Creek	Headwaters to confluence with Gun Creek
SR	Devils Chasm Creek	Headwaters to confluence with unnamed tributary at 33°48'46" /110°52'35"
SR	Dipping Vat Reservoir	33°55'47"/109°25'31"
SR	Double Cienega Creek	Headwaters to confluence with Fish Creek
SR	Fish Creek	Headwaters to confluence with the Salt River
SR	Five Point Mountain Tributary	Headwaters to Pinto Creek @ 33°22'25.93"/110°58'14"
SR	Gibson Mine Tributary	Headwaters to Pinto Creek @ 33°20'48.99"/110°56'42.31"
SR	Gold Creek	Headwaters to confluence with unnamed tributary at 33°59'47"/111°25'10"
SR	Gold Creek	Below confluence with unnamed tributary to confluence with Tonto Creek
SR	Gordon Canyon Creek	Headwaters to confluence with Hog Canyon
SR	Gordon Canyon Creek	Below confluence with Hog Canyon to confluence with Haigler Creek
SR	Greenback Creek	Headwaters to confluence with Tonto Creek
SR	Horne Creek	Headwaters to confluence with the Black River, West Fork
SR	Horse Camp Creek	Headwaters to confluence with unnamed tributary at 33°54'00"/110°50'07"
SR	Horse Camp Creek	Below confluence with unnamed tributary to confluence with Cherry Creek
SR	Houston Creek	Headwaters to confluence with Tonto Creek
SR	Hunter Creek	Headwaters to confluence with Christopher Creek
SR	LaBarge Creek	Headwaters to Canyon Lake

SR	Lake Sierra Blanca	33°52'25"/109°16'05"
SR	Miami Wash	Headwaters to confluence with Pinal Creek
SR	Mule Creek	Headwaters to confluence with Canyon Creek
SR	Open Draw Creek	Headwaters to confluence with the East Fork of Black River
SR	P B Creek	Headwaters to Forest Service Road #203 at 33°57'08"/110°56'12"
SR	Pinal Creek	Headwaters to confluence with unnamed EDW wash (Globe WWTP) at 33°25'29"/110°48'20"
SR	Pinal Creek	From 33°26'55"/110°49'25" to Lower Pinal Creek water treatment plant outfall #001 at 33°31'04"/ 110°51'55"
SR	Pinal Creek	From See Ranch Crossing to confluence with unnamed tributary at 33°35'28"/110°54'31"
SR	Pinal Creek (EDW)	Confluence with unnamed EDW wash (Globe WWTP) to 33°25'29"/110°48'20"
SR	Pine Creek	Headwaters to confluence with the Salt River
SR	Pinto Creek	Below confluence with unnamed tributary to Roosevelt Lake
SR	Pole Corral Lake	33°30'38"/110°00'15"
SR	Pueblo Canyon Creek	Headwaters to confluence with unnamed tributary at 33°50'23"/110°51'37"
SR	Pueblo Canyon Creek	Below confluence with unnamed tributary to confluence with Cherry Creek
SR	Reevis Creek	Headwaters to confluence with Pine Creek
SR	Reservation Creek	Headwaters to confluence with the Black River
SR	Reynolds Creek	Headwaters to confluence with Workman Creek
SR	Russell Gulch	From Headwaters to confluence with Miami Wash
SR	Salome Creek	Headwaters to confluence with the Salt River
SR	Salt House Lake	33°57'04"/109°20'11"
SR	Slate Creek	Headwaters to confluence with Tonto Creek
SR	Snake Creek (OAW)	Headwaters to confluence with the Black River
SR	Spring Creek	Headwaters to confluence with Tonto Creek
SR	Stinky Creek (OAW)	Headwaters to confluence with the Black River, West Fork
SR	Thomas Creek	Headwaters to confluence with Beaver Creek
SR	Thompson Creek	Headwaters to confluence with the West Fork of the Black River
SR	Turkey Creek	Headwaters to confluence with Rock Creek
SR	Unnamed trib to Black River North Fork East Fork	Headwaters to Black River NF of EF
SR	Wildcat Creek	Headwaters to confluence with Centerfire Creek
SR	Workman Creek	Below confluence with Reynolds Creek to confluence with Salome Creek
UG	Ash Creek	Headwaters to confluence with unnamed tributary at 32°46'15"/109°51'45"
UG	Ash Creek	Below confluence with unnamed tributary to confluence with the Gila River
UG	Bennett Wash	Headwaters to the Gila River
UG	Buckelew Creek	Headwaters to confluence with Castle Creek
UG	Castle Creek	Headwaters to confluence with Campbell Blue Creek
UG	Cave Creek	Below Coronado National Forest boundary to New Mexico border
UG	Chase Creek	Headwaters to the Phelps-Dodge Morenci Mine
UG	Chase Creek	Below the Phelps-Dodge Morenci Mine to confluence with San Francisco River
UG	Chitty Canyon Creek	Headwaters to confluence with Salt House Creek
UG	Cima Creek	Headwaters to confluence with Cave Creek
UG	Cluff Reservoir #1	32°48'55"/109°50'46"
UG	Cluff Reservoir #3	32°48'21"/109°51'46"
UG	Coleman Creek	Headwaters to confluence with Campbell Blue Creek
UG	Dankworth Lake	32°43'13"/109°42'17"
UG	Deadman Canyon Creek	Below confluence with unnamed tributary to confluence with Graveyard Wash
UG	Eagle Creek	Headwaters to confluence with unnamed tributary at 33°22'32"/109°29'43"
UG	East Eagle Creek	Headwaters to confluence with Eagle Creek
UG	East Turkey Creek	Headwaters to confluence with unnamed tributary at 31°58'22"/109°12'20"
UG	East Turkey Creek	Below confluence with unnamed tributary to terminus near San Simon River
UG	East Whitetail	Headwaters to terminus near San Simon River
UG	Emigrant Canyon	Headwaters to terminus near San Simon River
UG	Evans Pond #1	32°49'19"/109°51'12"
UG	Evans Pond #2	32°49'14"/109°51'09"
UG	Fishhook Creek	Headwaters to confluence with the Blue River
UG	Foote Creek	Headwaters to confluence with the Blue River
UG	Frye Canyon Creek	Headwaters to Frye Mesa Reservoir
UG	Frye Canyon Creek	Frye Mesa reservoir to terminus at Highline Canal
UG	Frye Mesa Reservoir	32°45'14"/109°50'02"
UG	Georges Tank	33°51'24"/109°08'30"
UG	Gibson Creek	Headwaters to confluence with Marijilda Creek
UG	Lanphier Canyon	Headwaters to confluence with the Blue River
UG	Little Blue Creek	Headwaters to confluence with Dutch Blue Creek
UG	Little Creek	Headwaters to confluence with the San Francisco River
UG	Marijilda Creek	Headwaters to confluence with Gibson Creek
UG	Marijilda Creek	Below confluence with Gibson Creek to confluence with Stockton Wash
UG	Markham Creek	Headwaters to confluence with the Gila River
UG	Pigeon Creek	Headwaters to confluence with the Blue River
UG	Roper Lake	32°45'23"/109°42'14"
UG	Sheep Tank	32°46'14"/109°48'09"
UG	Smith Pond	32°49'15"/109°50'36"
UG	Squaw Creek	Headwaters to confluence with Thomas Creek
UG	Stone Creek	Headwaters to confluence with the San Francisco River
UG	Strayhorse Creek	Headwaters to confluence with the Blue River
UG	Thomas Creek	Headwaters to confluence with Rousensock Creek
UG	Tinny Pond	33°47'49"/109°04'27"
VR	American Gulch	Headwaters to the Northern Gila County Sanitary District WWTP outfall at 34°14'02"/111°22'14"
VR	American Gulch (EDW)	Below Northern Gila County Sanitary District WWTP outfall to confluence with the East Verde River
VR	Apache Creek	Headwaters to confluence with Walnut Creek
VR	Ashbrook Wash	Headwaters to the Fort McDowell Indian Reservation boundary
VR	Aspen Creek	Headwaters to confluence with Granite Creek

VR	Banning Creek	Headwaters to Granite Creek @ 34°31'01.02"/112°28'37.63"
VR	Bar Cross Tank	35°00'41"/112°05'39"
VR	Barrats Tank	35°02'43"/112°24'21"
VR	Big Chino Wash	Headwaters to confluence with Sullivan Lake
VR	Bitter Creek	Headwaters to the Jerome WWTP outfall at 34°45'12"/112°06'24"
VR	Bitter Creek (EDW)	Jerome WWTP outfall to the Yavapai Apache Indian Reservation boundary
VR	Black Canyon Creek	Headwaters to confluence with unnamed tributary at 34°39'20"/112°05'06"
VR	Black Canyon Creek	Below confluence with unnamed tributary to confluence with the Verde River
VR	Bonita Creek	Headwaters to confluence with Ellison Creek
VR	Bray Creek	Headwaters to confluence with Webber Creek
VR	Butte Creek	Headwaters to Miller Creek @ 34°32'49.03"/112°28'29.3"
VR	Camp Creek	Headwaters to confluence with Verde River
VR	Cereus Wash	Headwaters to the Fort McDowell Indian Reservation boundary
VR	Chase Creek	Headwaters to confluence with the East Verde River
VR	Clover Creek	Headwaters to confluence with Headwaters of West Clear Creek
VR	Coffee Creek	Headwaters to confluence with Spring Creek
VR	Colony Wash	Headwaters to the Fort McDowell Indian Reservation boundary
VR	Deadman Creek	Headwaters to Horseshoe Reservoir
VR	Del Monte Gulch	Headwaters to confluence with City of Cottonwood WWTP outfall 002 at 34°43'57"/112°02'46"
VR	Del Monte Gulch (EDW)	City of Cottonwood WWTP outfall 002 at 34°43'57"/ 112°02'46" to confluence with Verde River
VR	Del Rio Dam Lake	34°48'55"/112°28'03"
VR	Dry Beaver Creek	Headwaters to confluence with Beaver Creek
VR	Dry Creek (EDW)	Sedona Ventures WWTP outfall at 34°50'42"/ 111°52'26" to 34°50'02"/ 111°52'17"
VR	Dude Creek	Headwaters to confluence with the East Verde River
VR	Ellison Creek	Headwaters to confluence with the East Verde River
VR	Foxboro Lake	34°53'42"/111°39'55"
VR	Fry Lake	35°03'45"/111°48'04"
VR	Gap Creek	Headwaters to confluence with Government Spring
VR	Gap Creek	Below Government Spring to confluence with the Verde River
VR	Garrett Tank	35°18'57"/112°42'20"
VR	Goldwater Lake, Lower	34°29'56"/112°27'17"
VR	Goldwater Lake, Upper	34°29'52"/112°26'59"
VR	Government Canyon	Headwaters to Granite Creek @ 34°33'29.49"/112°26'53.18"
VR	Granite Basin Lake	34°37'01"/112°32'58"
VR	Granite Creek	Headwaters to Watson Lake
VR	Granite Creek	Below Watson Lake to confluence with the Verde River
VR	Green Valley Lake (EDW)	34°13'54"/111°20'45"
VR	Heifer Tank	35°20'27"/112°32'59"
VR	Hells Canyon Tank	35°04'59"/112°24'07"
VR	Homestead Tank	35°21'24"/112°41'36"
VR	Horse Park Tank	34°58'15"/111°36'32"
VR	Houston Creek	Headwaters to confluence with the Verde River
VR	Huffer Tank	34°27'46"/111°23'11"
VR	J.D. Dam Lake	35°04'02"/112°01'48"
VR	Jacks Canyon	Headwaters to Big Park WWTP outfall at 34°45'46"/ 111°45'51"
VR	Jacks Canyon (EDW)	Below Big Park WWTP outfall to confluence with Dry Beaver Creek
VR	Lime Creek	Headwaters to Horseshoe Reservoir
VR	Mail Creek	Headwaters to East Verde River @ 34°25'03.88"/111°15'49.6"
VR	Manzanita Creek	Headwaters to Granite Creek @ 34°31'31.19"/112°28'44.34"
VR	Masonry Number 2 Reservoir	35°13'32"/112°24'10"
VR	McLellan Reservoir	35°13'09"/112°17'06"
VR	Meath Dam Tank	35°07'52"/112°27'35"
VR	Miller Creek	Headwaters to Granite Creek @ 34°32'48.55"/112°28'12.96"
VR	Mullican Place Tank	34°44'16"/111°36'10"
VR	Munds Creek (EDW), Tributary to Oak Creek	From Pinewood Sanitary District Kay S. Blackman WWTP outfall at 34? 56' 09", -111? 38' 35" to Oak Creek.
VR	North Fork Miller	Headwaters to Miller Creek
VR	North Granite Creek	Headwaters to Granite Creek @ 34°33'04.33"/112°27'50.45"
VR	Oak Creek, West Fork (OAW)	Headwaters to confluence with Oak Creek
VR	Odell Lake	34°56'5"/111°37'53"
VR	Peck's Lake	34°46'51"/112°02'01"
VR	Perkins Tank	35°06'42"/112°04'12"
VR	Pine Creek	Headwaters to confluence with unnamed tributary at 34°21'51"/111°26'49"
VR	Pine Creek	Below confluence with unnamed tributary to confluence with East Verde River
VR	Red Creek	Headwaters to confluence with the Verde River
VR	Reservoir #1	35°13'5"/111°50'09"
VR	Reservoir #2	35°13'17"/111°50'39"
VR	Roundtree Canyon Creek	Headwaters to confluence with Tangle Creek
VR	Scholze Lake	35°11'53"/112°00'37"
VR	Slaughterhouse Gulch	Headwaters to Yavapai Res. Boundary
VR	Spring Creek	Headwaters to confluence with unnamed tributary at 34°57'23"/111°57'21"
VR	Steel Dam Lake	35°13'36"/112°24'54"
VR	Stehr Lake	34°22'01"/111°40'02"
VR	Stoneman Lake	34°46'47"/111°31'14"
VR	Sycamore Creek	Below confluence with unnamed tributary to confluence with Verde River
VR	Sycamore Creek	Headwaters to confluence with Verde River at 34°04'42"/111°42'14"
VR	Tangle Creek	Headwaters to confluence with Verde River
VR	Trinity Tank	35°27'44"/112°48'01"
VR	Unnamed Trib to Granite Creek (UGC)	Headwaters to Yavapai Prescott Reservation Boundary
VR	Unnamed Trib to UGC (UUG)	Headwaters to Unnamed Trib to Granite Creek (UGC)
VR	Unnamed Wash	Flagstaff Meadows WWTP outfall at 35°13'53.54"/ 111°48'40.32"to Volunteer Wash

VR	Walnut Creek	Headwaters to confluence with Big Chino Wash
VR	Watson Lake	34°34'58"/112°25'26"
VR	Webber Creek	Headwaters to confluence with the East Verde River
VR	Wet Beaver Creek	Headwaters to unnamed springs at 34°41'17"/ 111°34'34"
VR	Whitehorse Lake	35°06'59"/112°00'48"
VR	Williamson Valley Wash	Headwaters to confluence with Mint Wash
VR	Williamson Valley Wash	From confluence of Mint Wash to 10.5 km downstream
VR	Williamson Valley Wash	From 10.5 km downstream of Mint Wash confluence to confluence with Big Chino Wash
VR	Williscraft Tank	35°11'22"/112°35'40"
VR	Willow Creek	Above Willow Creek Reservoir
VR	Willow Valley Lake	34°41'08"/111°20'02"

Historical Note

Table C made by final rulemaking at 29 A.A.R. 302 (January 27, 2023), effective February 20, 2023 (Supp. 22-4).

MAP OF PROTECTED SURFACE WATERS

From ADEQ's eMaps GIS, Surface Water Protection Program Streams (9/26/2024):

Attachment C

PROGRAM ORGANIZATIONAL CHART AND GUIDANCE FOR DISCHARGE RESPONSE

Glendale
ARIZONA

MS4 Program
Roles and Responsibilities

Environmental Compliance Officer (Program Manager)

Pretreatment Inspectors
- IDDE inspections, investigations, and corrective actions
- Commercial and industrial inspection program and outreach

4.2 Public Education and Outreach
4.3 Public Involvement and Participation
4.4 Illicit Discharge Detection and Elimination
4.5 Municipal Facilities Pollution Prevention
Employee Training
Inventory
Inspections
Good Housekeeping Measures
Record-keeping
4.6 Industrial and Commercial Facilities
4.7 Construction
4.8 Post-Construction
5.0 Wet Weather Monitoring
6.0 Reporting

Environmental Resources

Env. Program Managers
Env. Resources Specialist
- MS4 permit negotiations, planning, compliance oversight, and coordination
- Public and staff education and outreach
- Illicit discharge investigation
- Oversight of "found waste" program (abandoned hazardous waste on city property)
- Municipal facility inspections
- Review of laboratory data for stormwater samples
- Review of development plans including grading and drainage
- Quality assurance of sample collection and analysis
- Reporting to ADEQ (annual report, DMRs, etc.)

Conservation and Sustainable Living
- Public outreach program for schools, adults, and businesses
- Public involvement through hands-on training of sustainable stormwater practices
- Educational response to IDDE reports

On-call contractors
- Hazmat ID, cleanup, disposal, and transportation
- Emergency response
- Sampling and analysis

Stormwater Maintenance
- Public education and outreach
- Illicit discharge investigations
- Outfall inspections
- Dry weather screening and sampling
- Maintain and inspect underground stormwater assets
- Contract management for drywell maintenance and wet weather sampling

Central System Maintenance
- GIS mapping, updates, and maintenance
- Stormwater asset tracking/record keeping

Engineering
- Illicit discharge investigation
- Flood control and drainage master plan
- Capital Improvement Plan program
- Review SWPPPs for construction sites
- Review development plans including grading and drainage plans
- Construction site inspections and BMP enforcement
- Post-construction warranty inspection

Code Compliance
- Public education and outreach
- City code inspection, compliance, and enforcement programs
- Illicit discharge investigation and enforcement

Field Operations
- Household hazardous waste collection events
- Illicit discharge investigation
- Street sweeping

Parks and Recreation
- Public education related to park activities
- IDDE investigation
- Inspection and maintenance of 20 retention basins, as well as swales, channels, etc.

Transportation
- IDDE investigation
- Maintenance of city ROW including associated scuppers, retention basins, swales, channels, etc.

Public Safety

Fire
- Response to spills of hazardous materials
- Hazardous materials hotline
- Oversight of commercial/industrial facility hazardous materials storage

Police
- Response to Code Compliance incidents occurring outside of normal business hours

CITY OF GLENDALE
GUIDANCE FOR DISCHARGE RESPONSES

Is this an allowable discharge (listed below)?

- **yes** → In sufficient quantity to pose a risk to public safety or health, or damage ROW?
  - **yes** → Immediate traffic hazard?
    - **yes** → Report traffic hazard to PD non-emergency (623) 930-3000
    - **no** → Is the discharge from private property?
      - **yes** → Notify City staff based on discharge source:

        Commercial/Industrial Pretreatment (623) 930-4779

        Residential Code Compliance (623) 930-3610
      - **no** → Notify appropriate City department/division:
        - For plugged drywells, contact Stormwater Maintenance (623) 930-4177
        - For an overflowing Parks' retention basin, contact Parks (623) 930-2653
        - For City facilities, contact that facility
  - **no** → Report water waste to Water Conservation (623) 930-3596
- **no** → Is this an emergency?
  - **yes** → **Dial 911**

    ADEQ Emergency (602) 390-7894
  - **no** → Discharging to other storm sewer system?
    - **yes** → **Contact system's owner:**

      ADOT - (602) 712-6170

      City of Phoenix - (602) 262-6441

      City of Peoria - (602) 773-7418

      Luke Air Force Base - (623) 856-3621

      Maricopa County - (602) 506-6944
    - **no** → Is the discharge coming from private property?
      - **yes** → **Contact City staff based on discharge source:**

        Commercial/Industrial Pretreatment - (623) 930-4779

        Construction Engineering (623) 930-3630

        Residential Code Compliance (623) 930-3610
      - **no** → Since the discharge is from a City-owned property, refer to:
        - That facility's Spill Plan (per Spill Plan Policy)
        - City's Found Waste Policy, if waste was abandoned on City Property by unknown party

All allowable discharges must be POLLUTANT FREE:

- Water line flushing or other discharges from drinking water sources or discharges from potable water sources;
- Landscape irrigation, lawn watering, or irrigation water;
- Diverted stream flows, rising ground water, or natural springs;
- Uncontaminated groundwater infiltration to separate storm sewers;
- Uncontaminated pumped groundwater;
- Uncontaminated water from foundation drains or footing drains;
- Uncontaminated water from crawl space pumps;
- Air conditioning condensation and evaporative cooler run-off;
- Individual residential car washing;
- Flows from riparian habitats and wetlands;
- Street wash water;
- Discharges or flows from emergency firefighting activities;
- Discharges authorized by another NPDES or AZPDES permit.

FOR ASSISTANCE:		
Environmental Resources Staff		
Lisa Andersen	(623) 930-4133	(623) 693-4474
Amy Baker	(623) 930-4112	(623) 693-5210
Sydney Cleavenger	(623) 930-4119	(623) 640-8132
Megan Sheldon	(623) 930-4115	(602) 510-2362
On-Call Contractors for the City of Glendale		
Advanced Chemical Transport, Inc.		(602) 842-9160
Emergency Environmental Services, LLC		(480) 809-4687
Kary Environmental Services, Inc.		(480) 945-0009
Environmental Response, Inc.		(480) 967-2802
Crime Clean Decontamination, LLC		(602) 692-3492

Revised 2023

Attachment D

STORMWATER MONITORING PARAMETERS

Parameter	Units	Monitoring Frequency	Monitoring Type[1]
Conventional Parameters			
Average Flow Rate	---	1x/sampling event	---
pH	S.U.	1x/ wet season	Discrete
Hardness	mg/L	1x/ wet season	Flow-proportional composite
Temperature	°C	1x/ wet season	Discrete
Total Suspended Solids (TSS)	mg/L	1x/ wet season	Flow-proportional composite
Microbiological			
Escherichia coli (E. coli)	cfu/100 mL or MPN	1x/ wet season	Discrete
Metals[2]			
Arsenic	µg/L	1x/ wet season	Flow-proportional composite
Chromium, Total	µg/L	1x/ wet season	Flow-proportional composite
Copper	µg/L	1x/ wet season	Flow-proportional composite
Lead	µg/L	1x/ wet season	Flow-proportional composite
Selenium	µg/L	1x/ wet season	Flow-proportional composite

Parameter	Units	Monitoring Frequency	Monitoring Type[1]
Zinc	µg/L	1x/ wet season	Flow-proportional composite
Nutrients			
Nitrate plus Nitrite as N	mg/L	1x/ wet season	Flow-proportional composite
Ammonia as N	mg/L	1x/ wet season	Flow-proportional composite
Total Kjeldahl Nitrogen (TKN) as N	mg/L	1x/ wet season	Flow-proportional composite
Total Phosphorus	mg/L	1x/ wet season	Flow-proportional composite
Organic Toxic Pollutants			
Total Oil and Grease	mg/L	1x/ wet season	Discrete

Footnotes:

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

Parameter	Units	Monitoring Frequency	Monitoring Type[1]
Metals[2]			
Antimony	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Barium	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Beryllium	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Cadmium	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Mercury	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Nickel	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Silver	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Thallium	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite
Inorganics			
Cyanide, total	µg/L	1x /wet season during year 4 of the permit term	Discrete
Volatile Organic Compounds (VOCs)			
Acrolein	µg/L	1x /wet season during year 4 of the permit term	Discrete
Acrylonitrile	µg/L	1x /wet season during year 4 of the permit term	Discrete

Parameter	Units	Monitoring Frequency	Monitoring Type[1]
Benzene	µg/L	1x /wet season during year 4 of the permit term	Discrete
Carbon tetrachloride	µg/L	1x /wet season during year 4 of the permit term	Discrete
Chlorobenzene	µg/L	1x /wet season during year 4 of the permit term	Discrete
Dibromochloromethane	µg/L	1x /wet season during year 4 of the permit term	Discrete
Chloroethane	µg/L	1x /wet season during year 4 of the permit term	Discrete
2-chloroethylvinyl ether	µg/L	1x /wet season during year 4 of the permit term	Discrete
Chloroform	µg/L	1x /wet season during year 4 of the permit term	Discrete
Bromodichloromethane	µg/L	1x /wet season during year 4 of the permit term	Discrete
1,2-dichlorobenzene	µg/L	1x /wet season during year 4 of the permit term	Discrete
1,3-dichlorobenzene	µg/L	1x /wet season during year 4 of the permit term	Discrete
1,4-dichlorobenzene	µg/L	1x /wet season during year 4 of the permit term	Discrete
1,1-dichloroethane	µg/L	1x /wet season during year 4 of the permit term	Discrete

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

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

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

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

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

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

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

Parameter	Units	Monitoring Frequency	Monitoring Type[1]
Toxaphene	µg/L	1x /wet season during year 4 of the permit term	Flow-proportional composite

Footnotes:

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