

**ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY  
(AMAFCA)**

**STORMWATER MANAGEMENT PROGRAM  
(SWMP)**

**EFFECTIVE JULY 1, 2024**

**PREPARED FOR COVERAGE UNDER EPA NPDES  
GENERAL PERMIT NMR04A000  
AMAFCA PERMIT NMR04A016  
MIDDLE RIO GRANDE WATERSHED BASED MUNICIPAL  
SEPARATE STORM SEWER SYSTEM (MS4) PERMIT**



**AMAFCA  
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**REVISIONS**

<b>SWMP Plan Version and Date</b>	<b>Date Submitted to EPA</b>	<b>Reason for Revision (e.g., Modification, Annual Report Review and Update, etc.)</b>	<b>Notes</b>
Revision 0, Dec. 1, 2015	Dec. 1, 2015	N/A - Initial Version	Initial SWMP under Permit NMR04A000
Revision 1, Dec. 1, 2016	Dec. 1, 2016	Updated with EPA NOI revisions and minor text revisions resulting from first Annual Report review	SWMP submittal required with first Annual Report under Permit NMR04A000
Revision 2, Dec. 1, 2017	Dec. 1, 2017	Updated with minor text revisions resulting from FY 2017 Annual Report review	Internal update of SWMP – minor text revisions
Revision 3, Dec. 1, 2018	Dec. 1, 2018	Updated with minor plan and goal revisions resulting from FY 2018 Annual Report review	SWMP submittal required with year four (4) Annual Report under Permit NMR04A000
Revision 4, Dec. 1, 2019	Dec. 1, 2019	Updated with plan and goal revisions resulting from FY 2019 Annual Report review	Internal update of SWMP – minor text revisions
Revision 5, July 1, 2020	April 1, 2020	Updated with change to staggered SWMP time frames relative to Annual Report schedules	Internal update of SWMP – minor text revisions

<b>SWMP Plan Version and Date</b>	<b>Date Submitted to EPA</b>	<b>Reason for Revision (e.g., Modification, Annual Report Review and Update, etc.)</b>	<b>Notes</b>
Revision 6, July 1, 2021	April 1, 2021	Updated with plan and goal revisions resulting from FY 2020 Annual Report review	Internal update of SWMP – minor text revisions
Revision 7, July 1, 2024	April 1, 2024	Updated with plan and goal revisions	Internal update of SWMP

**CERTIFICATION**

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NPDES Permit No. NMR04A000  
Stormwater Management Program (SWMP)  
Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, 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.

AMAFCA

\_\_\_\_\_  
Kevin Troutman  
Executive Director

\_\_\_\_\_  
Date

**ACRONYM AND ABBREVIATIONS LIST**

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ABCWUA	Albuquerque Bernalillo County Water Utility Authority
AMAFCA	Albuquerque Metropolitan Arroyo Flood Control Authority
BA	Biological Assessment
BC	Bernalillo County
BEMP	Bosque Ecosystem Monitoring Program
BMP	Best Management Practice
BO	Biological Opinion
BOD <sub>5</sub>	Biochemical Oxygen Demand
CFR	Code of Federal Regulations
cfs	Cubic Feet per Second
CGP	EPA NPDES Construction General Permit
CIUDAD	Ciudad Soil and Water Conservation District
CMC	Compliance Monitoring Cooperative
COA	City of Albuquerque
COD	Chemical Oxygen Demand
CWA	Clean Water Act
CY	Cubic Yard
DCIA	Directly Connected Impervious Area
DMP	Drainage Management Plan
DMR	Discharge Monitoring Report
DO	Dissolved Oxygen
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
ESCAFCA	Eastern Sandoval County Arroyo Flood Control Authority
FOG	Fats, Oils, and Grease
FR	Federal Register
FSP	Field Sampling Plan
FY	Fiscal Year (July 1 to June 30)
GI	Green Infrastructure
GIS	Geographic Information System
GSI	Green Stormwater Infrastructure
IA	Impervious Area

## ACRONYM AND ABBREVIATIONS LIST

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IDDE	Illicit Discharge Detection and Elimination
ISC	Interstate Stream Commission
KAFB	Kirtland Air Force Base
LA	Load Allocation
LID	Low Impact Development
MCM	Minimum Control Measures
ML	Monitoring Location
MRG	Middle Rio Grande
MRGCD	Middle Rio Grande Conservancy District
MRGSQT	Middle Rio Grande Stormwater Quality Team
MS4	Municipal Separate Storm Sewer Systems
MSGP	EPA NPDES Multi Sector General Permit (Industrial Activity Permit)
MST	Microbial Source Tracking
NDC	North Diversion Channel
NM	New Mexico
NMAC	New Mexico Administrative Code
NMDOT	New Mexico Department of Transportation
NMED	New Mexico Environment Department
NMSA	New Mexico Statutes Annotated
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NTP	Notice to Proceed
O&M	Operation and Maintenance
OMRRR	Operation and Maintenance Repair Replacement and Rehabilitation
OSE	Office of the State Engineer
PCB	Polychlorinated biphenyl
PDN	Paseo Del Norte Boulevard
PNM	Public Service Company of New Mexico
ppb	Parts per Billion
QAPC	Quality Assurance and Performance Control
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance and Quality Control

**ACRONYM AND ABBREVIATIONS LIST**

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RGSM	Rio Grande Silvery Minnow
ROW	Right of Way
SDC	South Diversion Channel
SDL	Sample Detection Limit
SJD	San Jose Drain
SOP	Standard Operating Procedure
SSCAFCA	Southern Sandoval County Arroyo Flood Control Authority
SSO	Sanitary Sewer Overflow
SW	Southwest
SWMP	Stormwater Management Program
SWPPP	Stormwater Pollution Prevention Plan
SWQB	Surface Water Quality Bureau
TAG	Technical Advisory Group
TDS	Total Dissolved Solids
TMDL	Total Maximum Daily Load
TSS	Total Suspended Solids
UNM	University of New Mexico
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Service
WLA	Waste Load Allocation
WQ	Water Quality
WQS	Water Quality Standard
WQ MH	Water Quality Manhole



## **1 INTRODUCTION**

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### **1.1 PURPOSE OF STORMWATER MANAGEMENT PROGRAM (SWMP)**

The Stormwater Management Program (SWMP) was developed in support of the requirements of the United States Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Middle Rio Grande Watershed Based Municipal Separate Storm Sewer System (MS4) Permit NMR04A000 (MS4 Permit). The MS4 Permit was issued and became effective on December 22, 2014 and was subsequently modified by EPA on April 9, 2015. The Middle Rio Grande (MRG) Watershed Based MS4 Permit entered Administrative Continuance in Dec. 2019 when EPA Region 6 did not issue a new MS4 Permit before the current MS4 Permit's expiration date. The MRG Technical Advisory Group (TAG) sent EPA a letter dated October 15, 2019 acknowledging Administrative Continuance after the expiration date of the 5-year permit term. Until a new MS4 Permit is issued, there are no wet and dry weather monitoring requirements in the Rio Grande. The SWMP, according to Part I.D.1 of the MS4 Permit, shall satisfy all requirements of this MS4 Permit, and be implemented in accordance with Section 402(p)(3)(B) of the Clean Water Act (CWA), and the Stormwater Regulations (40 CFR § 122.26 and § 122.34). The MS4 Permit is included as Appendix A of this SWMP document.

The SWMP that follows describes the actions that Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) will take to protect water quality and satisfy applicable requirements of the MS4 Permit. According to Part I.D.1 of the MS4 Permit, the SWMP will be designed to reduce the discharge of pollutants from a MS4 to the maximum extent practicable, to protect water quality (including that of downstream state or tribal waters), and to satisfy applicable surface water quality standards.

The SWMP serves to document AMAFCA's proposed plans and measurable goals, implementation schedules, and assessments associated with meeting the MS4 Permit requirements. The SWMP will be revised and modified as necessary over the course of the 5-year MS4 Permit term and during administrative continuance of the MS4 Permit. Submittal of each Annual Report and updated SWMP meets the requirements in Part I.D.6.b. The SWMP (Revision 7) summarizes the applicable MS4 Permit requirements and describes AMAFCA's plans and strategies to comply with the MS4 Permit requirements. The SWMP clearly defines, as applicable to AMAFCA and as required in Part I.D.4 of the MS4 Permit, AMAFCA's measurable goals and implementation schedule for each Control Measure.

### **1.2 NOTICE OF INTENT (NOI) TO OBTAIN MS4 PERMIT COVERAGE**

For coverage under the MS4 Permit, AMAFCA submitted a notice of intent (NOI) as required in Part I.A.6.a to EPA Region 6 on June 19, 2015. AMAFCA is classified as a Class A Permittee, as defined in Table 1 (Part I.B.1.a) of the MS4 Permit. AMAFCA received authorization to discharge under this MS4 Permit from EPA in February 2016. The MRG Watershed Based MS4 Permit entered Administrative Continuance in Dec. 2019 when EPA Region 6 did not issue a new MS4 Permit before the current MS4 Permit's expiration date. The MRG TAG sent EPA a letter dated October 15, 2019 acknowledging Administrative Continuance after the expiration date of the 5-year permit term. The NOI and related correspondence is provided as Appendix B of this SWMP. With acceptance of AMAFCA's NOI, EPA assigned AMAFCA a Permit Tracking Number of NMR04A016.

### 1.3 AMAFCA – BACKGROUND AND DESCRIPTION

AMAFCA was created in 1963 by the New Mexico Legislature, (72-16-1 to 72-16-103 NMSA 1978 known as the "Arroyo Flood Control Act.") with a specific responsibility to provide flood control infrastructure to address flooding problems in the greater Albuquerque area.

AMAFCA's purpose is to prevent injury or loss of life and to eliminate or minimize property damage. AMAFCA does this by building and maintaining large critical flood control structures throughout the Albuquerque area which help alleviate flooding. The AMAFCA system is used by the City of Albuquerque (COA), the University of New Mexico (UNM), the New Mexico Department of Transportation (NMDOT), Bernalillo County, Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA), and the Village of Los Ranchos as a final conveyance of stormwater collected by their respective systems to the Rio Grande.

AMAFCA has invested approximately \$260,000,000 in infrastructure that includes 21 flood control dams, 50 smaller flood-control ponds, 77 miles of arroyo channels, 11 miles of underground conduit structures, and 10 miles of dikes and diversion structures. AMAFCA stormwater quality and debris-removal facilities annually collect an average of 50,000 cubic yards of sediment and 2,500 cubic yards of trash from stormwater before the runoff enters the Rio Grande. In addition to building infrastructure, outreach and education is an important part of AMAFCA's mission to protect life, property, and the environment.

#### 1.3.1 FLOOD CONTROL CHANNELS

The first mission of AMAFCA was to be the local sponsor for construction of two very large federally-funded projects, the North and South Diversion Channels, which were built by the U.S. Army Corps of Engineers (USACE). The North Diversion Channel (NDC) drains from Northeast Albuquerque and can convey 44,000 cubic feet of water per second (cfs) at its

outlet. The smaller South Diversion Channel (SDC) protects the Southeast Valley by intercepting flows from Southeast Albuquerque and the Tijeras Arroyo. AMAFCA is responsible for operation and maintenance of these two main flood control structures.

The North and South Diversion Channels are examples of traditional flood control channels. The NDC is a concrete-lined channel while the SDC is an earthen-lined channel. Both channels divert floodwater generated on the east side of the City to the river. There are many constructed tributary channels and storm drain systems that discharge into these two main arterial channels along the eastern side of Albuquerque.

In addition to the NDC and SDC, AMAFCA is responsible for the operation and maintenance of other channels which divert floodwater generated on the west side of the City to one of three outfalls to the Rio Grande. The Calabacillas, La Orilla, and San Antonio outfalls are largely earthen-lined systems originating from the west mesa along the western extents of Albuquerque. Planning is in progress for AMAFCA's Black Mesa Outfall and this fourth outfall for Albuquerque's west side may be active for the effective dates of this SWMP (Rev. 7).

### 1.3.2 DAMS

A typical AMAFCA dam is built with a principal spillway (pipe through the embankment) and an emergency spillway. Dams and other types of detention basins collect storm flows from existing storm drain infrastructure and release it slowly to prevent downstream damage. AMAFCA dams are capable of fully detaining the 1-percent (100-year) storm. A storm greater than that, however, could flow through the emergency spillway and cause downstream flooding.

### 1.3.3 STORMWATER QUALITY

AMAFCA is also concerned with protecting water quality for Albuquerque and its surrounding areas. AMAFCA's entire system is a regional stormwater quality treatment train for stormwater. AMAFCA has designed and built many structures that catch debris, sediment, and trash. These structural Best Management Practices (BMPs) protect the Rio Grande from pollution and are often modeled in the University of New Mexico's (UNM) Hydraulics Lab to enhance their debris capturing capability. AMAFCA's dams function not only as flood control facilities but also as water quality structures, trapping sediment and debris for removal. In addition to structural BMPs, AMAFCA's stormwater quality program utilizes many non-structural BMPs, including many cooperative elements with other MS4 permittees and organizations in the Middle Rio Grande watershed.

#### 1.4 COMPLIANCE WITH OTHER LAWS AND REGULATORY REQUIREMENTS

Part I.D.1 of the MS4 Permit states that if a Permittee is already in compliance with one or more requirements of the MS4 Permit – because it is already subject to and complying with a related local, state, or federal requirement that is at least as stringent as the MS4 Permit requirement – the Permittee may reference the relevant requirement as part of the SWMP and document why the MS4 Permit requirement has been satisfied.

The NM Office of the State Engineer (OSE) and Interstate Stream Commission (ISC) regulates the water delivery to the Rio Grande to meet water delivery requirements to Texas and downstream water rights; therefore, AMAFCA's objective is to design its facilities to drain within 96 hours per the OSE requirements. In addition, AMAFCA follows the guidance from the New Mexico Environment Department (NMED), OSE, and EPA in the “Green Infrastructure Implementation in New Mexico – Frequently Asked Questions and Guidance from NMED and OSE” related to green stormwater infrastructure (GSI) implementation that satisfies both water quantity and water quality obligations in the arid West. This guidance document is included as an attachment to this SWMP (Rev. 7) in the appendix.

#### 1.5 LEGAL AUTHORITY

AMAFCA has the legal authority to convey discharges entering its flood control system to the Rio Grande. The AMAFCA flood control system collects stormwater generated by the other MS4 permittees namely: The City of Albuquerque, UNM, NMDOT, Bernalillo County, SSCAFCA, and the Village of Los Ranchos. The AMAFCA facilities protect area residents from flood flows and convey said flows to the receiving waters of the Rio Grande.

AMAFCA does not have legal authority to pass ordinances. AMAFCA can use contractual agreements for activities conducted on their property as a means to provide legal authority related to MS4 Permit requirements.

## 2 SWMP GENERAL COMPONENTS AND REQUIREMENTS

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As described in Section 1.1, AMAFCA has developed and will implement and enforce a SWMP that is designed to reduce the discharge of pollutants to the maximum extent practicable, to protect water quality, and to satisfy applicable surface water quality standards. The AMAFCA MS4 Program includes innovative, cooperative, and effective elements to address the Southwest's unique arid challenges and to meet the MS4 Permit objectives. The SWMP addresses the MS4 Permit Special Conditions (Part I.C), contains the eight (8) Control Measures required in Part I.D.5 of the MS4 Permit, and addresses the applicable Monitoring and Assessment requirements in Part III of the MS4 Permit. The SWMP addresses each applicable MS4 Permit activity with a proposed plan to meet the required MS4 Permit activity, measurable goal(s) for the proposed plan, implementation schedule requirement. Program development relative to cooperative and non-cooperative permit requirements was phased over five years from the effective date of the MS4 Permit (December 22, 2014). The preparation and implementation of this SWMP (Rev. 7) has been done after the expiration date of the MS4 Permit but during the current period Administrative Continuance and before the issuance of a new MS4 Permit.. The general SWMP components, organization, review process, and modification process are described in the sections below.

### 2.1 SPECIAL CONDITIONS SWMP COMPONENTS

Part I.C of the MS4 Permit defines the Special Conditions requirements. These elements are outlined below, and program details are provided in the SWMP tables in Section 3.

- Compliance with Water Quality Standards (Part I.C.1) – This section of the MS4 Permit includes provisions to ensure that MS4 discharges do not cause or contribute to exceedances of applicable surface water quality standards. Under this section, there is a Dissolved Oxygen (DO) Program (Part I.C.1.d), a Polychlorinated Biphenyl (PCBs) Program (Part I.C.1.e), and a Temperature Program (Part 1.C.1.f).
- Discharges to Impaired Waters with and without Approved TMDLs– This section of the MS4 Permit (Part I.C.2.b.(i) and Tables 1.a - TMDL Bacteria Program and 1.b - TMDL Nutrient Program - Part I.C.2.b.(iii)) requires that the SWMP have controls that target the pollutants of concern identified for any impaired receiving waters. There are specific MS4 Permit requirements if the impaired water body has a Total Maximum Daily Load (TMDL) approved by EPA and NMED. The TMDL and impairments listed below are referenced in NMED's *2024-2026 State of New Mexico*

*Clean Water Act Section 303(d)/Section 305(b) Integrated Report, Appendix A Integrated List, State of New Mexico Water Quality Control Commission, NMED Surface Water Quality Bureau (website link: <https://www.env.nm.gov/surface-water-quality/303d-305b/>).*

- For the Rio Grande through Albuquerque, there is a TMDL for E. coli (finalized in 2010). This TMDL applies to the AMAFCA MS4 area for the Rio Grande from US Hwy 550 Bridge to Angostura Diversion (Waterbody ID NM-2105.1\_02), the Rio Grande from Alameda Bridge to US Hwy 550 Bridge (Waterbody ID NM-2105.1\_00), the Rio Grande from Tijeras Arroyo to Alameda Bridge (Waterbody ID NM-2105.1\_51), and the Rio Grande from Isleta Pueblo boundary to Tijeras Arroyo (Waterbody ID NM-2105\_50). Starting again with the 2020 assessment, and continuing with the current 2024 assessment, there is an impairment for E. coli for this entire reach of the Rio Grande from the Angostura Diversion to the Isleta Pueblo Boundary. The E. coli impairment had been removed from 2016-2020 for the Rio Grande segments in the Middle Rio Grande north of the Tijeras Arroyo.
- This section of the MS4 Permit also has requirements for waters with impairments that do not yet have TMDLs. The Rio Grande has the following impairments, without TMDLs, in the MS4 area:
  - E. coli – In addition to the TMDL defined above, four reaches of the Rio Grande through Albuquerque are also impaired for E. coli – Rio Grande from Isleta Pueblo boundary to Angostura Diversion – (Waterbody IDs NM-2105.1\_00, NM-2105.1\_51, NM-2105\_50, and NM-2105.1\_02);
  - Dissolved Oxygen – Rio Grande from Isleta Pueblo boundary to Alameda Bridge (Waterbody IDs NM-2105.1\_50 and NM-2105\_51);
  - PCBs – Fish Consumption Advisory – Rio Grande from Isleta Pueblo boundary to US Hwy. 550 – (Waterbody IDs NM-2105.1\_00, NM-2105.1\_51, and NM-2105\_50);
  - Polychlorinated Biphenyls (PCBs) – Rio Grande Alameda Bridge to US Hwy. 550 (Waterbody ID NM-2105\_00);
  - Mercury – Fish Consumption Advisory – Rio Grande from Isleta Pueblo boundary to US Hwy. 550 – (Waterbody IDs NM-2105.1\_00, NM-2105.1\_51, and NM-2105\_50);

- Gross Alpha, adjusted – Rio Grande Alameda Bridge to US Hwy. 550 (Waterbody ID NM-2105\_00); and
- Temperature – Rio Grande Tijeras Arroyo to Alameda Bridge (Waterbody ID NM-2105\_51).
- The above impairments are based on designated water uses for the Rio Grande as defined in New Mexico’s Water Quality Standards, codified at 20.6.4 NMAC. 20.6.4.105 and 20.6.4.106, which defines the designated uses for the Rio Grande from the headwaters of Elephant Butte reservoir upstream to Angostura Diversion Works, excluding waters on Isleta Pueblo, as irrigation, marginal warm water aquatic life, livestock watering, public water supply, wildlife habitat, and primary contact.
- For the Rio Grande, there are currently no impairments for nutrients. The Tijeras Arroyo, upstream of the Four Hills Bridge, is impaired for nutrients with a TMDL for nutrients finalized in October 2017. AMAFCA’s operation and maintenance authority and access to the Tijeras Arroyo terminates at the Four Hills Bridge. Therefore, there are no requirements in this SWMP to comply with the activities and schedules related to Impairment for Nutrients in Table 1.b in Part I.C.2.b.(iii). AMAFCA does monitor for nutrients through its Wet Weather Monitoring Program; see Section 2.3.
- Compliance with Endangered Species Act Requirements (Part I.C.3) –

This section of the MS4 Permit includes provisions consistent with the U.S. Fish and Wildlife Service (USFWS) Biological Opinion (BO) related to the Middle Rio Grande (MRG) Watershed MS4 Permit dated August 21, 2014 – Cons. #22420-2011-F-0024-R001. This section has two requirements: Dissolved Oxygen Strategy and Sediment Pollutant Load Reduction Strategy.

  - For the AMAFCA SWMP, the Dissolved Oxygen Strategy required in this section has been combined with the Compliance with Water Quality Standards – Dissolved Oxygen (DO) Program (Part I.C.1.d) due to the similar MS4 Permit requirements.
  - For the Sediment Pollutant Load Reduction Strategy, AMAFCA facilities function as regional flood control facilities as well as BMPs to remove sediment from stormwater before the stormwater reaches the Rio Grande. In the MRG MS4 area, AMAFCA is not contributing to the sediment pollutant load but rather functioning to capture the sediment pollutant load generated throughout the

watershed by MS4s contributing runoff to AMAFCA facilities. As such, AMAFCA does not want to reduce the sediment loads but rather continue targeted controls to increase the capture of sediment in its facilities. AMAFCA's Program for this MS4 Permit element focuses on assessing its facilities related to sediment capture and improving, or potentially expanding, its facilities and operations to improve sediment capture.

## 2.2 CONTROL MEASURES SWMP COMPONENTS

Each applicable Control Measure program required in Part I.D.5 of the MS4 Permit is addressed in this SWMP. There are eight (8) Control Measures in the MS4 Permit; these are described in general terms below with program details provided in the SWMP tables in Section 3.

- Construction Site Runoff Control Program (Part I.D.5.a and Table 2) – This program has controls related to the discharge of stormwater and pollutants from construction activities that result in a land disturbance of greater than or equal to one (1) acre. This program is not intended to cover routine operation and maintenance activities performed by or under the direction of AMAFCA. As part of the program, AMAFCA participates in cooperative development reviews conducted with area agencies, which are facilitated by the cooperative incentives of this unique Watershed Based MS4 Permit. These reviews include construction site runoff control aspects and consideration of GSI/LID/sustainable practices for projects. For this program, AMAFCA requires the Contractor's SWPPP to be methodically reviewed and outlines MS4 inspection requirements per the current version of EPA's Construction General Permit (CGP).
- Post-Construction Stormwater Management Program for New Development and Redevelopment (Part I.D.5.b and Table 3) – This program addresses stormwater runoff from new development and redevelopment projects after construction site stabilization has been achieved to minimize water quality impacts. Parts of this section are not applicable to AMAFCA as AMAFCA does not have any development or redevelopment projects. All AMAFCA projects are regional flood control or water quality projects. AMAFCA does not have jurisdiction over private or public (non-AMAFCA) development or redevelopment projects; this responsibility lies with other MS4s in the Middle Rio Grande watershed. AMAFCA facilities receive stormwater after it flows through new development and redevelopment. As a result, several MS4



Permit activities in this section do not apply to AMAFCA. AMAFCA's well renowned maintenance crew and routine operation & maintenance (O&M) activities address post-construction stormwater management at all AMAFCA facilities.

In addition, AMAFCA promotes the use of its infrastructure as regional water quality facilities. This Watershed Based MS4 Permit allows for Alternative Compliance due to site constraints for post-construction stormwater management. With AMAFCA's unique flood and stormwater quality infrastructure and successful maintenance program, AMAFCA facilities are often viable alternatives to the community for post-construction stormwater management. Also related to post-construction stormwater management, AMAFCA leverages their Project Schedule process by utilizing open lines of communication with watershed MS4s and area agencies to discuss areas requiring drainage and stormwater quality improvements, project priorities, and multiagency funding opportunities. The project inputs from other MS4s are screened for potential integration into the AMAFCA Project Schedule which includes priorities, schedules, and cost sharing opportunities facilitating a unified, watershed-wide approach to infrastructure planning.

- Pollution Prevention/ Good Housekeeping Program (Part I.D.5.c and Table 4) – The goal of this program is to prevent or reduce pollutant runoff from AMAFCA operations through training, maintenance, and waste management. From its elected Board to its Executive Director to its maintenance crew, AMAFCA prioritizes the maintenance, operations, and aesthetics of its facilities. As a result, pollution prevention and good housekeeping are inherent to AMAFCA activities and are part of the AMAFCA culture. With AMAFCA being a non-traditional MS4, its pollution prevention and good housekeeping program differs from other MS4s in the community in that its program extends throughout the watershed rather than focusing primarily on industrial-type facilities. For example, as part of this MS4 Program and through regular agency operations, AMAFCA conducts regular inspections and maintenance throughout the watershed for infrastructure that includes 21 flood control dams, 50 smaller flood-control ponds, 77 miles of arroyo channels, 11 miles of underground conduit structures, and 10 miles of dikes and diversion structures. Related to infrastructure, AMAFCA has become a regional leader in integrating flood control infrastructure and stormwater quality facilities. AMAFCA stormwater quality and debris-removal facilities annually collect an average of 50,000 cubic yards of sediment and 2,500 cubic yards of trash from stormwater before the runoff enters the Rio Grande.

- Industrial and High-Risk Runoff (Part I.D.5.d and Table 5) – This is a program to minimize the contribution of pollutants to the MS4 associated with industrial activity in the MS4. This section is not applicable to AMAFCA. AMAFCA certified with submittal of its NOI and each SWMP that no such industrial activities are in AMAFCA's jurisdiction, and this program element does not apply.
- Illicit Discharges and Improper Disposal (Part I.D.5.e and Table 6) – The goal of this program is to detect and eliminate illicit discharges into stormwater. The program elements also prohibit illicit dumping or disposal of materials, other than stormwater, into the MS4. The program includes a notification process and incident investigation and reporting process, procedures for testing, if necessary, an educational component, and an AMAFCA spill prevention and response plan. AMAFCA's successful illicit discharge and improper disposal control program depends on strong collaborative programs and long-standing relationships, as well as its staff's commitment to addressing illicit discharges. AMAFCA has leveraged in effect to team with the City of Albuquerque on its 311 Community Contact Center hotline (includes website and phone app) for reporting illicit discharges, illegal dumping, and improper disposal. The Albuquerque Bernalillo County Water Utility Authority (ABCWUA) provides documentation of sanitary sewer overflows to AMAFCA for the reporting period on a monthly basis. AMAFCA has pro-actively mobilized its maintenance crew as needed in response to ABCWUA sanitary sewer overflow notifications to help detain a given spill in a temporary earthen dam before reaching more of the downstream stormwater conveyance system or the river. AMAFCA has an established tracking system that receives reports from the over 300 sq. mi. area and ensures AMAFCA can address illicit discharges, improperly disposed trash and debris, and other reported concerns within its jurisdiction in a timely manner. AMAFCA also uses GIS to track illicit discharge reports and identify areas of concern where additional public outreach and education may be needed. AMAFCA is the leader in the watershed for its GIS stormwater facilities map. The map represents facilities throughout the Albuquerque Metropolitan Area for multiple agencies and is essential for ensuring that proper organizations are contacted and involved in any illicit discharge reports, assessment, removal, and/or enforcement.
- Control of Floatables Discharges Program (Part I.D.5.f and Table 7) – This program is intended to address and control floatables in stormwater discharges to the MS4 through implementation of source controls and structural controls (BMPs). Control

of floatables ties into pollution prevention and good housekeeping measures as well as illicit discharge and improper disposal measures. This is a program area where AMAFCA 's regional facilities and operations have a widespread, positive impact to the watershed. AMAFCA created a detailed crew tracking system to document the MS4 Program activities and enhance program effectiveness.

- Public Education and Outreach on Stormwater Impacts (Part I.D.5.g and Table 8) – This program provides education and outreach programs to the community related to the impact human activities have on the water quality of the Rio Grande. This Control Measure is approached through a unique, well-organized cooperative group organized as the Middle Rio Grande Stormwater Quality Team (MRGSQT). The MRGSQT has grown to 12 organizations who leverage their resources to ensure MS4 Permit public education and outreach requirements are met with the goal of preventing and reducing stormwater pollution throughout the watershed from reaching the Rio Grande. The MRGSQT provides public education and outreach on stormwater impacts through different media and methods, reaching wide-spread target audiences, and focusing on target pollutants including pet waste, illicit discharges, and trash/debris. Currently, the MRGSQT funds classroom and field education programs, media campaigns, brochures, giveaways, display booths/kiosks, websites, and a Facebook page.
- Public Involvement and Participation (Part I.D.5.h and Table 9) – This Control Measure encourages public involvement and provides opportunities for participation in public outreach activities as well as in the review, modification, and implementation of the SWMP. Many of the MRGSQT activities also apply to the public involvement and participation MS4 Permit components. AMAFCA and the MRGSQT recognize the importance of public involvement - this is a crucial part to the success of the MS4 Programs in the watershed. Many of the MS4 Program elements require awareness and public behavioral changes, such as picking up pet waste, proper disposal of litter, and proper disposal of household hazardous wastes. A few examples of AMAFCA's commitment to public participation and involvement as well as their focus to keep these activities innovative and interesting include: 1) Volunteer "community science" monitoring is conducted through the Bosque Ecosystem Monitoring Program (BEMP) 2) AMAFCA organizes community volunteers and provides supplies to keep Mutt Mitt Stations stocked throughout the watershed: and 3) water quality surveys are collected from events and the MRGSQT

completes data trend analyses to help direct future public outreach and educational events and to assess the impact of the organized activities on public behavior.

## 2.3 MONITORING SWMP COMPONENTS

Part III.A of the MS4 Permit defines the monitoring and assessment program requirements and objectives. As applicable, three (3) MS4 Permit elements have been added to the AMAFCA SWMP: Wet Weather Monitoring (Part III.A.1 and Table 10), Dry Weather Discharge Screening (Part III.A.2), and Floatables Monitoring (Part II.A.3). Industrial and High-Risk Runoff Monitoring (Part III.A.4) is not part of AMAFCA's SWMP, and with submittal of its NOI and the SWMP, AMAFCA certified that no such industrial activities are in AMAFCA's jurisdiction, and therefore this program element does not apply.

For the Wet Weather Monitoring, AMAFCA is a partner in the Compliance Monitoring Cooperative (CMC). The CMC has delegated that SSCAFCA manage the work associated with CMC sample collection and AMAFCA manage the work associated with data validation and verification, sampling results memo, entry into a database, and reporting to EPA's online compliance database. Included with AMAFCA's reporting task, the CMC members, except for the City of Albuquerque, have delegated authority to AMAFCA through signed Memorandums of Understanding (MOUs) to enter the CMC data into the EPA electronic Discharge Monitoring Report (DMR) forms. Delegation of the DMR data entry by AMAFCA was approved by EPA Region 6, Compliance Assurance and Enforcement Division.

The MRG Watershed Based MS4 Permit entered Administrative Continuance in Dec. 2019 when EPA Region 6 did not issue a new MS4 Permit before the current MS4 Permit's expiration date. The MRG TAG sent EPA a letter dated October 15, 2019 acknowledging Administrative Continuance after the expiration date of the 5-year permit term. Until a new MS4 Permit is issued, there are no wet and dry weather monitoring requirements in the Rio Grande.

## 2.4 SWMP ORGANIZATION

AMAFCA's SWMP is organized in a tabular format in an Excel Database. The detailed SWMP tables are provided in Section 3. The SWMP tables are organized following the MS4 Permit organization. The SWMP includes:

- Permit Activity Description – This contains the MS4 Permit requirements, MS4 Permit language, and MS4 Permit references.
- Proposed Plan – This contains AMAFCA's strategy to comply with the required MS4 Permit activity. This section will identify if AMAFCA is involved in a cooperative

program for this MS4 Permit element. Cooperative programs are encouraged with this MS4 Permit (Part I.B.4). Section 3, Table A, provides a list of the current AMAFCA cooperative programs.

- Measurable Goal – This contains specific actions that AMAFCA proposes to complete to meet its Proposed Plan.
- Permit Required Implementation Schedule – This contains the implementation schedules listed in the MS4 Permit for the specific MS4 Permit activity, as applicable. The MS4 Permit implementation schedules for AMAFCA are either the Permittee Class A or the Cooperative, depending on the MS4 Permit activity and if AMAFCA has a cooperative program for that activity.

In addition, AMAFCA will add columns annually for Status of Implementation and Performance Assessment. These sections will be completed during the Annual Report review of the SWMP. Additional columns may be added to the database, as necessary, to help AMAFCA manage and track the SWMP elements. This process is being reviewed during Administrative Continuance and may be modified to more efficiently report on the numerous MS4 Permit requirements.

## 2.5 PROCESS OF SWMP REVIEWS

According to the requirements in Part I.D.6.a, the SWMP will undergo an annual review in conjunction with preparation of the Annual Report (required in Part III.B). The review will include the following components:

- A discussion of progress made in SWMP implementation, including achievement of measurable goals and compliance with program elements and other MS4 Permit conditions.
- An evaluation of the effectiveness of the SWMP in complying with the MS4 Permit with respect to controlling pollutant discharges and complying with water quality standards and TMDLs. This evaluation will include identifying necessary modifications needed for the SWMP, if applicable.
- The adequacy of staff (man hours needed and projected), funding levels, equipment, and support capabilities to fully implement the SWMP and comply with the MS4 Permit conditions.

As required in Part III.B, the year one (1) and year four (4) Annual Reports included submittal of a complete SWMP revision. Beginning with Revision 5, AMAFCA staggered its SWMP updates from its required Annual Report submittals on December 1 for the previous

fiscal year such that each updated SWMP will be applicable to each fiscal year (FY) of annual reporting (July 1 to June 30). The SWMP updates will include the updates identified during the annual review process.

## 2.6 REQUIREMENTS FOR PUBLIC REVIEW AND COMMENTS

This MS4 Permit does not explicitly state the public notice time frame requirements for SWMP changes. According to the requirements in Part III.B related to the Annual Report, “at least forty-five (45) days prior to submission of each Annual Report, the permittee must provide public notice of and make available for public review and comment a draft copy of the Annual Report. All public input must be considered in preparation of the final Annual Reports and any changes to the SWMP. AMAFCA will provide public notice of and make available for public review and comment a draft copy of each revised SWMP at least thirty (30) days prior to the revised SWMP becoming effective. All public input will be considered in preparation of the updated SWMP document.

## 2.7 PROCESS OF SWMP MODIFICATIONS

The SWMP may be modified under the conditions described below.

### 2.7.1 PERMITTEE-INITIATED MODIFICATIONS

AMAFCA may modify this SWMP with prior notification or request to the EPA and NMED in accordance with Part I.D.6.b of the MS4 Permit. Modification requests or notifications shall be made in writing and signed in accordance with Part IV.H of the MS4 Permit.

- Modifications adding but not eliminating, replacing, or jeopardizing fulfillment of any component, control, or requirements of the SWMP can be made by the Permittee at any time upon written notification to the EPA.
- Modifications replacing or eliminating an ineffective or infeasible component, control, or requirement of the SWMP (including monitoring and analysis requirements described in Parts III.A and V of the MS4 Permit) may be requested of EPA in writing at any time. When requesting a modification, the Permittee shall include the following information:
  - A description of why the SWMP component is ineffective, unfeasible (including cost prohibitions), or unnecessary to support compliance with the MS4 Permit;
  - Expectations on the effectiveness of the proposed replacement component; and
  - An analysis of how the proposed replacement component is expected to achieve the goals of the component to be replaced.

### 2.7.2 EPA-REQUIRED MODIFICATIONS

Modifications may be requested by EPA (Part I.D.6.c) to address impacts to receiving water quality, include requirements to comply with new or revised regulations, add measures needed to comply with the Clean Water Act, or add measures needed to comply with the MS4 Permit. If modifications are requested by EPA, the Permittee will be provided with an opportunity to propose alternative program modifications to meet the objective of the requested modification.

### 2.7.3 DUE TO MODIFICATION OF THE MS4 PERMIT

The MS4 Permit may be reopened and modified (Part V), in accordance with 40 CFR §122.62, §122.63, and §124.5. Only those portions of the SWMP specifically required as MS4 Permit conditions shall be subject to the modification requirements of 40 CFR §124.5.

### 2.7.4 IMPLEMENTATION AND AUGMENTATION OF SWMP

According to Part VI.A, the permittee(s) shall comply with all elements identified in Parts I and III of the Permit for SWMP implementation and augmentation, and permit compliance. The EPA shall have 60 days from receipt of a modification or augmentation of the SWMP made in compliance with Part VI to provide comments or request revisions. During the initial review period, EPA may extend the time period for review and comment. The permittee(s) shall have 30 days from receipt of the EPA's comments or required revisions to submit a response. All changes to the SWMP or monitoring plans made to comply with schedules in Parts I and III must be approved by EPA prior to implementation.

AMAFCA has met the requirements in Part III.B for completing SWMP revisions and submitting to EPA with the year one (1) and year four (4) Annual Reports. Beginning with Revision 5, AMAFCA will stagger its SWMP updates from its Annual Report submittals such that each updated SWMP will be applicable to each fiscal year (FY) of annual reporting (July 1 to June 30) as required by the Permit. AMAFCA assumes from Part V1.A that a 90- to 120-day time period from submittal of its SWMP to EPA will be typical for SWMP approval (30-day comment period which may or may not run concurrent with the 60-day EPA review process plus an assumed 30-day AMAFCA response period). Therefore, submittal of SWMP updates to EPA between March 1 – April 1 of each year will provide AMAFCA with an approved SWMP by the July 1 start of the fiscal year. It is AMAFCA's intention that each Annual Report will only report progress relative to review of one SWMP revision. The FY 2025 Annual Report will

reference this revision, Revision 7, of the SWMP, which will be effective from July 1, 2024 until June 30, 2025.



**3 SWMP TABLES**

As described in Section 2.4 above, AMAFCA’s SWMP is organized in a tabular format in an Excel Database. The SWMP tables are provided on the following pages.

AMAFCA’s current cooperative programs are listed below in Table A. Copies of the cooperative agreements are provided in Appendix D. In addition to the current cooperative agreements, AMAFCA is cooperating with other MS4 entities on many SWMP elements and is working to formalize these agreements. An example of a Cooperative Coordination Letter is provided in Appendix D.

**Table A – SWMP Cooperative Programs**

<b>Cooperative Program Name</b>	<b>SWMP Element(s)</b>	<b>Cooperative Partner(s)</b>	<b>Agreement/ Procedure/ Coordination</b>
Middle Rio Grande Stormwater Quality Team (MRGSQT)	<ul style="list-style-type: none"> <li>➤ Part I.C.1.d: Compliance with WQS-DO</li> <li>➤ Part I.C.3.a: ESA-DO</li> <li>➤ Part I.C.2.b: Impaired Waters w/TMDLs</li> <li>➤ Part I.D.5.a: Construction</li> <li>➤ Part I.D.5.b: Post-Construction</li> <li>➤ Part I.D.5.c: Pollution Preventions/Good Housekeeping</li> <li>➤ Part I.D.5.e: Illicit Discharge</li> <li>➤ Part I.D.5.g: Public Education &amp; Outreach</li> <li>➤ Part I.D.5.h: Public Involvement &amp; Participation</li> </ul>	AMAFCA City of Albuquerque Bernalillo County NMDOT-District 3 SSCAFCA Town of Bernalillo Village of Corrales Sandoval County Village of Los Ranchos ESCAFCA City of Rio Rancho	Intergovernmental Agreement
MS4 Technical Advisory Group (TAG)	<ul style="list-style-type: none"> <li>➤ Part I.D.5.a: Construction</li> <li>➤ Part I.D.5.b: Post-Construction</li> <li>➤ Part I.D.5.c: Pollution Preventions/Good Housekeeping</li> <li>➤ Part I.D.5.e: Illicit Discharge</li> <li>➤ Part I.D.5.f: Control of Floatables</li> </ul>	AMAFCA City of Albuquerque NMDOT-District 3 UNM Bernalillo County Sandoval County Village of Corrales City of Rio Rancho Village of Los Ranchos Kirtland Air Force Base (KAFB) Town of Bernalillo SSCAFCA	Memorandum of Agreement

<b>Cooperative Program Name</b>	<b>SWMP Element(s)</b>	<b>Cooperative Partner(s)</b>	<b>Agreement/ Procedure/ Coordination</b>
		ESCAFCA Sandia National Laboratory (DOE)	
MS4 Compliance Monitoring Cooperative (CMC)	<ul style="list-style-type: none"> <li>➤ Part I.C.2.b: Impaired Waters w/TMDLs</li> <li>➤ Part III.A.1: Wet Weather Monitoring Program</li> </ul>	Bernalillo County AMAFCA City of Albuquerque NMDOT-District 3 UNM Sandoval County Village of Corrales City of Rio Rancho Village of Los Ranchos Town of Bernalillo SSCAFCA ESCAFCA	Intergovernmental Agreement and Memorandums of Understanding for Delegation of Authority to AMAFCA for Data Entry into DMR System (except for City of Albuquerque)
Capacity, Management, Operations and Maintenance (CMOM) Plan	<ul style="list-style-type: none"> <li>➤ Part I.C.2.b: Impaired Waters w/TMDLs</li> <li>➤ Part I.D.5.e: Illicit Discharge</li> </ul>	ABCWUA City of Albuquerque AMAFCA Bernalillo County NMDOT-District 3 Village of Los Ranchos	Cooperative Procedure
Area & Agency Wide Project	<ul style="list-style-type: none"> <li>➤ Part I.D.5.b: Post-Construction</li> <li>➤ Part I.D.5.c: Pollution Preventions/Good Housekeeping</li> </ul>	AMAFCA City of Albuquerque NMDOT-District 3	Annual Contract
Miscellaneous Construction Projects	<ul style="list-style-type: none"> <li>➤ Part I.D.5.c: Pollution Preventions/Good Housekeeping</li> </ul>	AMAFCA City of Albuquerque NMDOT-District 3	Annual Contract
GI/LID Impediments Assessment and Report	<ul style="list-style-type: none"> <li>➤ Part I.D.5.a: Construction</li> <li>➤ Part I.D.5.b: Post-Construction</li> </ul>	AMAFCA Bernalillo County	Shared without cost allocation
Progress Evaluation Report for the Sediment Pollutant Load Reduction Strategy	<ul style="list-style-type: none"> <li>➤ Part I.C.3.b: ESA-Sediment</li> </ul>	AMAFCA Bernalillo County City of Albuquerque SSCAFCA	Shared without cost allocation
Gross Debris Study	<ul style="list-style-type: none"> <li>➤ Part I.D.5.f: Control of Floatables</li> </ul>	AMAFCA Bernalillo County	Shared without cost allocation

## **APPENDICES**

**APPENDIX A –  
NPDES MIDDLE RIO GRANDE WATERSHED BASED  
MS4 PERMIT NMR04A000**

**APPENDIX B –  
AMAFCA's EPA APPROVAL / AUTHORIZATION FOR  
PERMIT COVERAGE & NOTICE OF INTENT (NOI)**

## **APPENDIX C – AMAFCA’S FACILITIES MAP**

## **APPENDIX D – COOPERATIVE PROGRAMS**

**APPENDIX E – OSE FAQ DOCUMENT (place holder)**