NPDES PERMIT NO. NMR04A000

STORMWATER MANAGEMENT PROGRAM (SWMP)

REVISION 8







EFFECTIVE

JULY 1, 2025



FOR



2600 PROSPECT AVENUE NE
ALBUQUERQUE, NM 87107
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ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY (AMAFCA)

STORMWATER MANAGEMENT PROGRAM

(SWMP)

REVISION 8

EFFECTIVE JULY 1, 2025

PREPARED FOR COVERAGE UNDER

ENVIRONMENTAL PROTECTION AGENCY

(EPA)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

(NPDES)

GENERAL PERMIT NMR04A000

AMAFCA PERMIT NMR04A016

MIDDLE RIO GRANDE WATERSHED BASED

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT

AMAFCA

2600 PROSPECT AVENUE, NE

ALBUQUERQUE, NM 87107

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REVISIONS

SWMP Plan Version and Date	Date Submitted to EPA	Reason for Revision (e.g., Modification, Annual Report Review and Update, etc.)	Notes
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

SWMP Plan Version and Date	Date Submitted to EPA	Reason for Revision (e.g., Modification, Annual Report Review and Update, etc.)	Notes
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
Revision 8, July 1, 2025	April 28, 2025	Updated with plan and goal revisions	Internal update of SWMP – minor text revisions

CERTIFICATION

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

07/10/2025
Date

ACRONYM AND ABBREVIATIONS LIST

ABCWUA	Water 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_5	Biochemical Oxygen Demand
CFR	Code of Federal Regulations
cfs	Cubic Feet per Second
CGP	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

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

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

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 (MRG) 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 MRG Watershed Based MS4 Permit entered Administrative Continuance in December 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. The MS4 Permit timeline is shown in Figure 1. Until a new MS4 Permit is issued, there are no wet or dry weather monitoring requirements in the MRG Watershed. According to Part I.D.1 of the MS4 Permit, the SWMP 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, or has taken, 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 has been revised and modified as necessary to reflect AMAFCA's compliance over the course of the 5-year MS4 Permit term and during administrative continuance of the MS4 Permit. The MS4 Permit requires submittal of an Annual Report to EPA on December 1st of each year, reporting on MS4 Permit compliance for the prior fiscal year (FY), which covers the time frame from July 1 – June 30. Submittal of each Annual Report and SWMP updates meet the requirements in Part I.D.6.b. The SWMP (Revision 8) 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

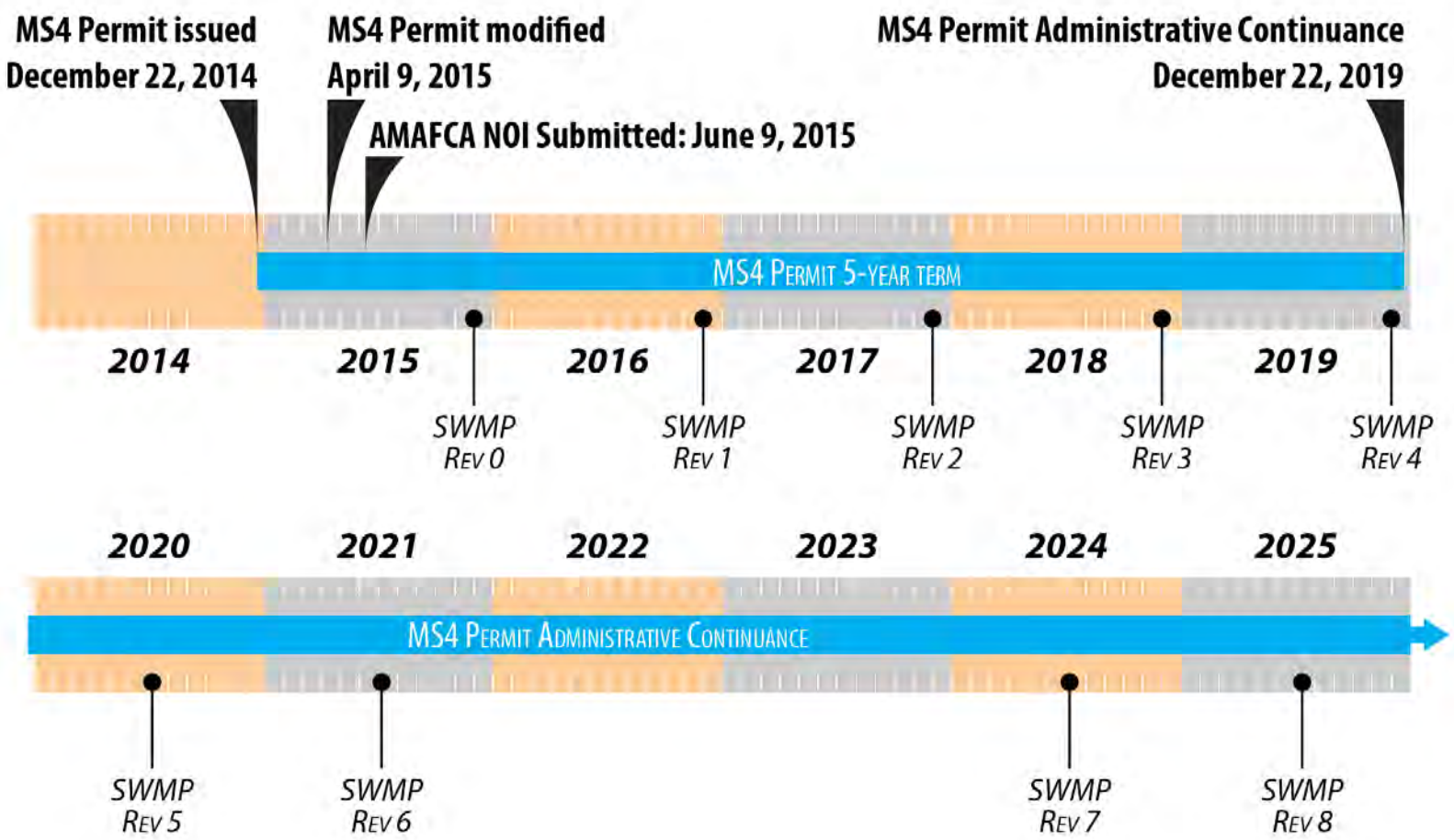


Figure 1: MS4 Permit Timeline

measurable goals and implementation schedule for each Control Measure. See Figure 1 for a visual timeline of AMAFCA's SWMP Revisions relative to the MS4 Permit term and/or Administrative Continuance.

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

For coverage under the Watershed Based 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 December 2019, when EPA Region 6 did not issue a new MS4 Permit before the 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 are provided as Appendix B of this SWMP. Upon acceptance of AMAFCA's prepared 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 to help alleviate flooding throughout the Albuquerque area. 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 133 water quality structures, 23 flood control dams, 56 smaller flood-control ponds, 76 miles of arroyo channels, 15 miles of underground conduit structures, and 10 miles of dikes and diversion structures. AMAFCA stormwater quality and debris-removal facilities collect an average of 25,000 cubic yards of sediment and 2,000 cubic yards of trash from stormwater annually before the runoff enters the Rio Grande. In addition to building infrastructure, public 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 stormwater flows from Southeast Albuquerque and the Tijeras Arroyo. AMAFCA is responsible for the operation and maintenance (O&M) of these two main flood control structures.

The NDC and SDC 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 O&M 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 activated after the effective date of this SWMP (Revision 8).

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. 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 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 MRG 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 (Revision 8) in Appendix E.

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: COA, UNM, NMDOT, Bernalillo County, SSCAFCA, and the Village of Los Ranchos. 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

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, and implementation schedule. Program development relative to cooperative and non-cooperative permit requirements was phased over 5 years from the effective date of the MS4 Permit (December 22, 2014). The preparation and implementation of this SWMP (Revision 8) was done during the period of Administrative Continuance after the expiration date of the MS4 Permit 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 the SWMP to 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). The E. coli impairment had been removed from 2016-2020 for the Rio Grande segments in the MRG north of the Tijeras Arroyo. Starting again with the 2020 assessment, and continuing through the current 2024-2026 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.
- 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);
  - Polychlorinated Biphenyls (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);
  - 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).

o 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.

o 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 O&M 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.

- <u>Compliance with Endangered Species Act Requirements (Part I.C.3)</u> –
  This section of the MS4 Permit includes provisions consistent with the U.S. Fish and Wildlife Service (USFWS) Biological Opinion (BO) related to the MRG Watershed MS4 Permit dated August 21, 2014 – Cons. #22420-2011-F-0024-R001. This section has two requirements: Dissolved Oxygen (DO) Strategy and Sediment Pollutant Load Reduction Strategy.
  - o For the AMAFCA SWMP, the DO Strategy required in this section has been combined with the Compliance with Water Quality Standards – DO Program (Part I.C.1.d) due to the similar MS4 Permit requirements.
  - o 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 significantly 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 necessarily want to reduce the sediment loads but rather continue targeted control measures 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 O&M 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 Stormwater Pollution Prevention Plan (SWPPP) to be methodically reviewed and to outline 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 MRG 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 O&M activities address post-construction stormwater management at all AMAFCA facilities.

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. In addition, 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 and 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 23 flood control dams, 56 smaller flood-control ponds, 76 miles of arroyo channels, 15 miles of underground conduit structures, and 10 miles of dikes and diversion structures. With regard 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 25,000 cubic yards of sediment and 2,000 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. With the submittal of its NOI and each SWMP, AMAFCA certified that no such industrial activities are in AMAFCA's jurisdiction, and therefore, 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 staff commitment to addressing illicit discharges. AMAFCA has leveraged in effect to team with the COA 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 (Water Authority) provides documentation of sanitary sewer overflows to AMAFCA for the reporting period on a monthly basis. The Water Authority has pro-actively mobilized its maintenance crew as needed in response to Water Authority 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 jurisdictional 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 11 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 maintains a presence on social media through its 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 has completed 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). Wet Weather Monitoring follow requirements for two seasons, a wet season (July 1 – October 31) and a dry season (November 1 – June 30), as shown in Figure 2. 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.



Figure 2: MS4 Permit Wet Weather Monitoring Wet and Dry Weather Seasons

For 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, database entry, and reporting through EPA's online compliance database. Included with AMAFCA's reporting task, the CMC members, except for the COA, 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 December 2019, when EPA Region 6 did not issue a new MS4 Permit before the original 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 MRG Watershed.

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 report more efficiently 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 includes 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 (FY) such that each updated SWMP will be applicable to each 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 Report

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 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 CWA, 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 submission to EPA with the year one (1) and year four (4) Annual Reports. Beginning with Revision 5, AMAFCA staggered its SWMP updates from its required Annual Report submittals on December 1 for the previous FY, such that each updated SWMP will be applicable to each FY of annual reporting (July 1 to June 30) as required by the Permit. AMAFCA's Annual Reports are in effect greatly simplified because said reports are based on the measurable goals from only one effective SWMP revision.

Figure 3 shows the effective SWMP and Annual Report development, review, and submittal schedule. The EPA has typically not provided any comments during their comment period described above in detail. AMAFCA assumes from Part V1.A that a 60- to 90-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 and AMAFCA response period). Therefore, submittal of SWMP updates to EPA between April 1 and April 30 of each year will provide AMAFCA with an approved SWMP by the July 1 start of the FY. It is AMAFCA's intention that each Annual Report will only report progress relative to the measurable goals of only one SWMP revision. The FY 2026 Annual Report will reference this revision, Revision 8, of the SWMP, which will be effective July 1, 2025.

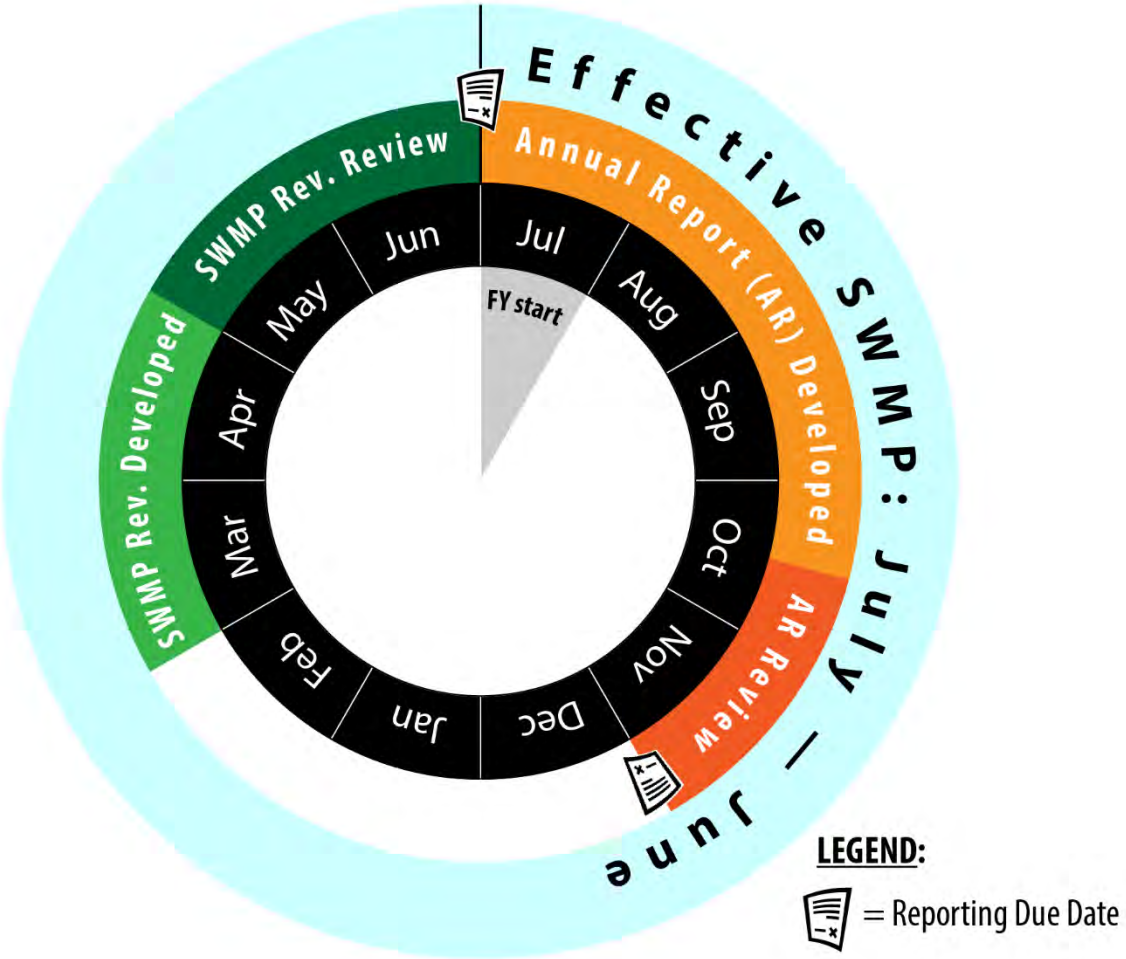


Figure 3: Schedule for MS4 Permit Effective SWMP and Annual Reports

3 SWMP TABLES

As described in Section 2.4 above, AMAFCA's SWMP is organized in a tabular format in an easily accessible 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

Cooperative Program Name	SWMP Element(s)	Cooperative Partner(s)	Agreement / Procedure / Coordination
Middle Rio Grande Stormwater Quality Team (MRGSQT)	➢ Part I.C.1.d: Compliance with WQS-DO ➢ Part I.C.3.a: ESA-DO ➢ Part I.C.2.b: Impaired Waters w/TMDLs ➢ Part I.D.5.a: Construction ➢ Part I.D.5.b: Post-Construction ➢ Part I.D.5.c: Pollution Prevention / Good Housekeeping ➢ Part I.D.5.e: Illicit Discharge ➢ Part I.D.5.g: Public Education & Outreach ➢ Part I.D.5.h: Public Involvement & Participation	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)	➢ Part I.D.5.a: Construction ➢ Part I.D.5.b: Post-Construction ➢ Part I.D.5.c: Pollution Prevention / Good Housekeeping ➢ Part I.D.5.e: Illicit Discharge ➢ Part I.D.5.f: Control of Floatables	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 ESCAFCA Sandia National Laboratory (DOE)	Memorandum of Agreement

Cooperative Program Name	SWMP Element(s)	Cooperative Partner(s)	Agreement / Procedure / Coordination
MS4 Compliance Monitoring Cooperative (CMC)	➢ Part I.C.2.b: Impaired Waters w/TMDLs ➢ Part III.A.1: Wet Weather Monitoring Program	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	➢ Part I.C.2.b: Impaired Waters w/TMDLs ➢ Part I.D.5.e: Illicit Discharge	Water Authority City of Albuquerque AMAFCA Bernalillo County NMDOT-District 3 Village of Los Ranchos	Cooperative Procedure
Area & Agency Wide Project	➢ Part I.D.5.b: Post-Construction ➢ Part I.D.5.c: Pollution Prevention / Good Housekeeping	AMAFCA City of Albuquerque NMDOT-District 3	Annual Contract
Miscellaneous Construction Projects	➢ Part I.D.5.c: Pollution Prevention / Good Housekeeping	AMAFCA City of Albuquerque NMDOT-District 3	Annual Contract
GI/LID Impediments Assessment and Report	➢ Part I.D.5.a: Construction ➢ Part I.D.5.b: Post-Construction	AMAFCA Bernalillo County	Shared without cost allocation
Progress Evaluation Report for the Sediment Pollutant Load Reduction Strategy	➢ Part I.C.3.b: ESA-Sediment	AMAFCA Bernalillo County City of Albuquerque SSCAFCA	Shared without cost allocation
Gross Debris Study	➢ Part I.D.5.f: Control of Floatables	AMAFCA Bernalillo County	Shared without cost allocation

NOI Section	ID	Permit Activity Description	Plan SWMP Rev. 8 - July 1, 2025	Measurable Goal SWMP Rev. 8 - July 1, 2025	Permit Required Implementation Schedule
	3	**Part I.C - Special Conditions**			
	4	**Compliance with Water Quality Standards – General Requirements - Part I.C.1.a - c**			
Not Included in NOI	5	Part I.C.1 - Compliance with Water Quality Standards - Pursuant to Clean Water Act §402(p)(3)(B)(iii) and 40 CFR § 122.44(d)(1), this permit includes provisions to ensure that discharges from the permittee's MS4 do not cause or contribute to exceedances of applicable surface water quality standards, in addition to requirements to control discharges to the maximum extent practicable (MEP) set forth in Part I.D. Permittees shall address storm water management through development of the SWMP that shall include the following elements and specific requirements included in Part VI (sections below).	Part I.C.1 - AMAFCA's proposed plan for compliance with related Permit activities are described in the applicable sections of the AMAFCA SWMP.	• AMAFCA's measurable goals for compliance with related Permit activities are described in the applicable sections of the AMAFCA SWMP.	No Permit required schedule.
Not Included in NOI	6	Part I.C.1.a - Permittee's discharges shall not cause or contribute to an exceedance of surface water quality standards (including numeric and narrative water quality criteria) applicable to the receiving waters. In determining whether the SWMP is effective in meeting this requirement or if enhancements to the plan are needed, the permittee shall consider available monitoring data, visual assessment, and site inspection reports.	Part I.C.1.a - Compare AMAFCA monitoring data results to applicable surface water quality standards that occur in the following programs: Compliance with Water Quality Standards - Dissolved Oxygen Program, Compliance with Water Quality Standards - PCB Program, Compliance with Water Quality Standards - Temperature Program, Compliance with Water Quality Standards - Discharges to Impaired Waters with Approved TMDL Program, and the Wet Weather Monitoring Program. Refer to these sections for additional information.	• Compare AMAFCA monitoring data results to applicable surface water quality standards that occur in the following programs: Compliance with Water Quality Standards - Dissolved Oxygen Program, Compliance with Water Quality Standards - PCB Program, Compliance with Water Quality Standards - Temperature Program, Compliance with Water Quality Standards - Discharges to Impaired Waters with Approved TMDL Program, and the Wet Weather Monitoring Program. • AMAFCA's measurable goals for compliance with related Permit activities are described in the applicable sections of the AMAFCA SWMP.	No Permit required schedule.
Not Included in NOI	7	Part I.C.1.b - Applicable surface water quality standards for discharges from the permittees' MS4 are those that are approved by EPA and any other subsequent modifications approved by EPA upon the effective date of this permit found at New Mexico Administrative Code §20.6.4. Discharges from various portions of the MS4 also flow downstream into waters with Pueblo of Isleta and Pueblo of Sandia Water Quality Standards.	Part I.C.1.b - Compare AMAFCA monitoring data results to the applicable New Mexico Administrative Code §20.6.4, Pueblo of Isleta Water Quality Standards (amended on 3/18/2002, effective 7/22/2005 per EPA website), and Pueblo of Sandia Water Quality Standards (effective 3/9/2010). Compare AMAFCA monitoring data results to applicable surface water quality standards that occur in the following programs: Compliance with Water Quality Standards - Dissolved Oxygen Program, Compliance with Water Quality Standards - PCB Program, Compliance with Water Quality Standards - Temperature Program, Compliance with Water Quality Standards - Discharges to Impaired Waters with Approved TMDL Program, and the Wet Weather Monitoring Program. Refer to these sections for additional information.	• Compare AMAFCA monitoring data results to applicable surface water quality standards that occur in the following programs: Compliance with Water Quality Standards - Dissolved Oxygen Program, Compliance with Water Quality Standards - PCB Program, Compliance with Water Quality Standards - Temperature Program, Compliance with Water Quality Standards - Discharges to Impaired Waters with Approved TMDL Program, and the Wet Weather Monitoring Program. • AMAFCA's measurable goals for compliance with related Permit activities are described in the applicable sections of the AMAFCA SWMP.	No Permit required schedule.

NOI Section	ID	Permit Activity Description	Plan SWMP Rev. 8 - July 1, 2025	Measurable Goal SWMP Rev. 8 - July 1, 2025	Permit Required Implementation Schedule
Not Included in NOI	8	Part I.C.1.c - The permittee shall notify EPA and the Pueblo of Isleta in writing as soon as practical but not later than 30 calendar days following each Pueblo of Isleta water quality standard exceedance at an in-stream sampling location. In the event that EPA determines that a discharge from the MS4 causes or contributes to an exceedance of applicable surface water quality standards and notifies the permittee of such an exceedance, the permittee shall, within sixty (60) days of notification, submit to EPA, NMED, Pueblo of Isleta (upon request) and Pueblo of Sandia (upon request), a report that describes controls that are currently being implemented and additional controls that will be implemented to prevent pollutants sufficient to ensure that the discharge will no longer cause or contribute to an exceedance of applicable surface water quality standards. The permittee shall implement such additional controls upon notification by EPA and shall incorporate such measures into their SWMP as described in Part I.D of this permit. NMED or the affected Tribe may provide information documenting exceedances of applicable water quality standards caused or contributed to by the discharges authorized by this permit to EPA Region 6 and request EPA take action under this paragraph.	Part I.C.1.c - AMAFCA will notify EPA and the Pueblo of Isleta of any Pueblo of Isleta of water quality standard exceedances at an in-stream sampling location (within the Rio Grande). Notification will be in writing as soon as practicable. Lab reports are typically received within 45 days of a sampling event. Preliminary review of the results typically requires 5 days. AMAFCA will include requirements to their contractors to review and report in-stream exceedances in a timely manner so that AMAFCA can better meet this requirement. AMAFCA will notify EPA and the Pueblo of Isleta within 30 days of the data review to determine a Pueblo of Isleta water quality standard exceedance at an in-stream (within the Rio Grande) sampling location. The Permit is unclear if this notification is required just for MS4 Permit compliance sampling, or if this includes results from other monitoring, such as citizen science projects. AMAFCA will provide this notification for in-stream samples that AMAFCA is involved with sampling, that result in a Pueblo of Isleta water quality standard exceedance. In addition, AMAFCA will continue to use sondes in the Rio Grande to monitor DO and temperature (refer to the Compliance with Water Quality Standards - Dissolved Oxygen (DO) Program). AMAFCA has provided Isleta Pueblo staff with access to near real-time DO and temperature sonde data.	• AMAFCA will notify EPA and the Pueblo of Isleta of any Pueblo of Isleta water quality standard exceedances at an in-stream sampling location (within the Rio Grande). Notification will be in writing as soon as practicable. • AMAFCA will add the in-stream notification of Pueblo of Isleta water quality standard exceedance to monitoring reporting tasks with sub-consultants to ensure that results are reviewed and reported in a timely manner. • AMAFCA will continue to use sondes in the Rio Grande to monitor DO and temperature (refer to the Compliance with Water Quality Standards - Dissolved Oxygen Program). In the permit term, AMAFCA has provided Isleta Pueblo staff with access to near real-time DO and temperature sonde data.	No Permit required schedule.

NOI Section	ID	Permit Activity Description	Plan SWMP Rev. 8 - July 1, 2025	Measurable Goal SWMP Rev. 8 - July 1, 2025	Permit Required Implementation Schedule
	9	**Compliance with Water Quality Standards – Dissolved Oxygen & Part I.C.1.d and Endangered Species Act (ESA) Requirements - Dissolved Oxygen Strategy - Part I.C.3.a**			
Not Included in NOI	10	According to the requirements in Part I.C.1.d and Part I.C.3.a.(ii), the permittees shall revise the May 1, 2012 Strategy to continue taking measures to address concerns regarding discharges to the Rio Grande by implementing controls to eliminate conditions that cause or contribute to exceedances of applicable dissolved oxygen water quality standards in waters of the United States. The permittee shall, as part of this revised strategy, complete the following activities [activities are listed in sections below]. Activities listed are a combination of permit activities in Part I.C.1.d - Special Conditions, Compliance with Water Quality Standards, Phase I Dissolved Oxygen Program and Part I.C.3.a - Dissolved Oxygen Strategy in Receiving Waters of the Rio Grande.	Part I.C.1.d and Part I.C.3.a.(ii) - The potential for low DO discharges to the Rio Grande at the NDC Embayment has been a concern which AMAFCA has been addressing, with the USFWS and EPA, since 2004. Several strategies, including various NDC Embayment modifications, have been implemented from 2011-2014. In 2015-2016, AMAFCA completed construction, after coordination with USFWS, of the NDC Outfall Grade Control Structures Modification Project and NDC Embayment Regrading Project. The NDC Embayment was filled in and regraded in 2015-2016, thereby removing the constant hydraulic connection between the Rio Grande and the NDC Bathtub/Outfall. In normal river flow conditions, water from the Rio Grande will not be able to stagnate in the Embayment and create low DO conditions. These improvement projects provide control measures to eliminate conditions that cause or contribute to exceedances of applicable DO water quality standards. These NDC projects and this Dissolved Oxygen Program Strategy were coordinated with the USFWS. AMAFCA received a Final BO from the USFWS and Special Conditions from USACE allowing the NDC Embayment to be filled in and revegetated.	• AMAFCA has completed the NDC Outfall Grade Control Structures Modification Project to fill in and revegetate the NDC Embayment and will continue following the terms of the Final BO from the USFWS and Final Special Conditions from USACE. This project is the revised strategy for the MS4 Permit elements related to DO.	1 year from permit effective date Dec. 22, 2015
Not Included in NOI	11	Part I.C.1.d.(i) and Part I.C.3.a.(i) - Identify (or continue identifying) structural elements, natural or man-made topographical and geographical formations, MS4 operations activities, or oxygen demanding pollutants contributing to reduced dissolved oxygen in the receiving waters of the Rio Grande. Both dry and wet weather discharges shall be addressed. Assessment may be made using available data or collecting additional data;	Part I.C.1.d.(i) and Part I.C.3.a.(i)- The NDC Outfall/Embayment is the primary structural element identified by AMAFCA, City of Albuquerque, EPA, and USFWS as potentially contributing to low dissolved oxygen (DO) in the receiving waters of the Rio Grande. This Dissolved Oxygen Strategy is primarily focused on addressing this element. No other specific structural elements in the watershed have been identified as contributing to reduced DO in the receiving waters of the Rio Grande. Other stormwater outfalls, including the South Diversion Channel/Tijeras Arroyo, Calabacillas Arroyo, San Antonio Arroyo, will continue to be monitored. AMAFCA will continue to operate sondes in the Rio Grande deployed for monitoring DO and temperature. The sonde locations throughout the length of the Rio Grande within the Urbanized Area (UA) will assist AMAFCA with bracketing segments of the Rio Grande to better understand elements that may be contributing to reduced DO in the receiving waters of the Rio Grande. DO results from AMAFCA monitoring efforts will assist AMAFCA in determining if there are other factors that may be contributing to reduced DO in the receiving waters of the Rio Grande. AMAFCA will update its SWMP if any other specific structural elements in the watershed are identified as contributing to reduced DO in the receiving waters of the Rio Grande.	• AMAFCA will follow the monitoring measurable goals in Part I.C.1.d.(iii) below. • Related to identifying structural elements in the watershed that may be contributing to reduced DO, AMAFCA will continue to use sondes in the Rio Grande to monitor DO and temperature; the sonde data will provide valuable data related to potential DO - stormwater runoff and related seasonal factors.	1 year from permit effective date Dec. 22, 2015

NOI Section	ID	Permit Activity Description	Plan SWMP Rev. 8 - July 1, 2025	Measurable Goal SWMP Rev. 8 - July 1, 2025	Permit Required Implementation Schedule
Not Included in NOI	12	Part I.C.1.d.(ii) - Continue implementing controls, and updating/revising as necessary, to eliminate structural elements or the discharge of pollutants at levels that cause or contribute to exceedances of applicable water quality standards for dissolved oxygen in waters of the United States;	Part I.C.1.d.(ii) - The primary controls for this DO Program are the NDC Outfall Grade Control Structures Modification Project and Embayment Grading Project. The water quality improvement goal for the NDC Outfall Grade Control Structures Modification Project is to improve maintenance operations, thereby improving efficiency of sediment, trash and debris removal due to better access and improved geometry. The NDC Embayment Regrading Project, as discussed above, removes the constant hydraulic connection between the Rio Grande and the NDC Bathtub/Outfall. These improvement projects provide control measures to mitigate conditions that cause or contribute to exceedances of applicable DO WQSs. In addition to the NDC Outfall and Embayment Projects, AMAFCA will continue to install stormwater quality structures within the watershed. AMAFCA plans, designs, and builds regional stormwater flood control and water quality BMPs throughout the watershed to help eliminate the discharge of pollutants that cause or contribute to exceedances of applicable water quality standards for DO in waters of the Rio Grande. Pollutant source reduction strategies, such as public education and encouragement of Green Stormwater Infrastructure (GSI) and Low Impact Development (LID), are also part of the ongoing controls for this Program. AMAFCA actively participates in the MRGSQT, which organizes and leads public education, outreach, involvement, and participation activities which relate to this Program. AMAFCA supports conference programming which reinforces GSI stormwater practices.	• AMAFCA will continue to plan, design, and build regional stormwater flood control and water quality BMPs throughout the MRG watershed. • AMAFCA will continue to contribute and participate in the MRGSQT which provides public education, outreach, and participation opportunities related to stormwater impacts to water quality. AMAFCA will continue to support conference programming which reinforces GSI stormwater practices.	1 year from permit effective date Dec. 22, 2015
Not Included in NOI	13	Part I.C.1.d.(iii) Continue sampling for DO and temperature in the North Diversion Channel (NDC) Embayment until the data indicate the discharge does not exceed applicable DO water quality standards in waters of the United States. This coincides with the requirements in Part I.C.3.a.(ii).(a), the revised strategy shall include: A. A Monitoring Plan describing all procedures necessary to continue conducting continuous monitoring of DO and temperature in the NDC Embayment and at 1 location in the Rio Grande downstream of the mouth of the NDC within the action area (e.g., Central Bridge). B. A Quality Assurance and Quality Control (QA/QC) Plan describing all standard operating procedures, quality assurance and quality control plans, maintenance and implementation schedules that will assure timely and accurate collection and reporting of water temperature, DO, oxygen saturation, and flow. The QA/QC plan should include all procedures for estimating oxygen data when any oxygen monitoring equipment fail.	Part I.C.1.d.(iii) - With the NDC Embayment filled in since 2016, AMAFCA cannot physically measure the DO in the Embayment. AMAFCA will provide continuous monitoring of DO and temperature (using sondes) in the Rio Grande at the most appropriate locations for the purpose of complying with the MS4 Permit requirements in Part I.C.1.d.(iii) and Part I.C.3.a.(ii).(a). The sonde locations throughout the stretch of the Rio Grande within the UA will assist AMAFCA with bracketing segments of the Rio Grande to better understand locations of elements that may be contributing to reduced DO in the receiving waters of the Rio Grande. For compliance with this Permit Activity, AMAFCA will deploy sondes to provide continuous DO, oxygen saturation, and temperature monitoring; sondes are currently located at the following locations: - Rio Grande at Sandia Pueblo Boundary (just above the confluence with the NDC outfall) - Rio Grande at Central Ave. Bridge - Rio Grande at the Isleta Dam Note - sonde locations may change based on the results and program needs as well as river stage. Part I.C.3.a.(ii).(a).A and B - For the sonde monitoring, AMAFCA has standard operating procedures, quality assurance plans, maintenance, and implementation schedules in place.	• For compliance with this Permit Activity, AMAFCA will deploy sondes in the most appropriate locations to provide continuous DO and temperature monitoring. • AMAFCA will continue following the standard operating procedures, quality assurance plans, maintenance, and implementation schedules that are in place for the sonde monitoring. AMAFCA will continue to pursue, as applicable, data collection and reporting improvements to this program. • In the permit term, AMAFCA has provided Isleta Pueblo staff with access to the near real-time DO and temperature sonde data.	1 year from permit effective date Dec. 22, 2015

NOI Section	ID	Permit Activity Description	Plan SWMP Rev. 8 - July 1, 2025	Measurable Goal SWMP Rev. 8 - July 1, 2025	Permit Required Implementation Schedule
Not Included in NOI	14	Part I.C.1.d.(iv) Submit a revised strategy to FWS for consultation and EPA for approval within a year of the effective date of the permit and progress reports with the subsequent annual reports. Progress reports to include: (a) Summary of data. (b) Activities undertaken to identify MS4 discharge contribution to exceedances of applicable dissolved oxygen water quality standards in waters of the United States. Including summary of findings of the assessment required in Part I.C.1.d.(i). (c) Conclusions drawn, including support for any determinations. (d) Activities undertaken to eliminate MS4 discharge contribution to exceedances of applicable dissolved oxygen water quality standards in waters of the United States. (e) Account of stakeholder involvement. Part I.C.3.a.(i) - The permittees shall submit a summary of findings and a summary of activities undertaken with each Annual Report. The SWMP submitted with the first and fourth annual reports must include a detailed description of controls implemented (or/and proposed control to be implemented) along with corresponding measurable goals. (Applicable to all permittees).	Part I.C.1.d.(iv) - AMAFCA completed the NDC project in 2016 to fill in and revegetate the NDC Embayment following the terms of the Final BO from the USFWS and Final Special Conditions from USACE. USFWS was consulted during this project and made aware of the revised strategy. The AMAFCA MS4 Annual Report and supporting documentation will be considered as the Progress Report. A separate progress report will not be submitted to EPA and USFWS. The MS4 Annual Report will include the Annual Incidental Take Report as an Attachment to the Annual Report. Part I.C.3.a.(i) - The Annual Report will include a summary of example activities undertaken to identify elements contributing to reduced dissolved oxygen in the receiving waters of the Rio Grande and changes or improvements to the Strategy for implementation of controls to eliminate exceedances of applicable water quality standards for dissolved oxygen in waters of the United States.	• AMAFCA completed the NDC Outfall Grade Control Structures Modification Project to fill in and revegetate the NDC Embayment following the terms of the Final BO from the USFWS and Final Special Conditions from USACE. • AMAFCA will complete the Incidental Take Report and follow the Incidental Take Reporting requirements and data submittal requirements. • AMAFCA will include a summary of example activities in each Annual Report. AMAFCA will incorporate documentation by reference into the Annual Report and plans to document progress on the AMAFCA website.	Revised strategy due - 1 year from permit effective date Dec. 22, 2015 Progress reports submitted with subsequent annual report cover letters (Due Dec. 1).
Not Included in NOI	15	According to the requirements in Part I.C.3.a.(ii), the permittees shall ensure that actions to reduce pollutants or remedial activities selected for the NDC Embayment and its watershed are implemented such that there is a reduction in frequency and magnitude of all low oxygen stormwater discharge events that occur in the Embayment or downstream in the MRG as indicated in Table 1.c. Actions to meet the year 3 measurable goals must be taken within 2 years from the effective date of the permit. Actions to meet the year 5 measurable goals must be taken within 4 years from the effective date of the permit.	Part I.C.3.a.(ii) - The result of removing the NDC Embayment and hydraulically disconnecting the NDC stormwater flows from the Rio Grande will minimize low DO conditions at this location. The Embayment has had historical issues with stagnate ponded water creating low DO conditions. The monitoring activities described above will be used to assess that the Embayment project functions as planned and that low DO conditions are reduced in both frequency and magnitude.	• AMAFCA will obtain DO monitoring results for "qualifying events" as defined by USFWS with the MS4 Permit measurable goals as listed in Table 1.c , using the table in Appendix G in the MS4 Permit.	Progress reports submitted with subsequent annual reports, as applicable (Due Dec. 1).

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Not Included in NOI	16	According to the requirements in Part I.C.3.a.(ii).(b), the permittees (COA and AMAFCA) shall provide: A. An Annual Incidental Take Report to EPA and the Service that includes the following information: beginning and end date of any qualifying stormwater events, DO values and water temperature in the NDC Embayment, DO values and water temperature at a downstream monitoring station in the MRG, flow rate in the NDC, mean daily flow rate in the MRG, evaluation of oxygen and temperature data as either anoxic or hypoxic using Table 2 of the BO, and estimate the number of silvery minnows taken based on Appendix A of the BO. Electronic copy of The Annual Incidental Take Report should be provided with the annual report required under Part III.B no later than December 1 for the proceeding calendar year.	Part I.C.3.a.(ii).(b).A - AMAFCA will complete the Incidental Take Report, which estimates the potential Rio Grande Silvery Minnow (RGSM) take using the method defined by USFWS for the BO (MRG Watershed Permit BO dated August 21, 2014 - Cons. #22420-2011-F-0024-R001). Using the BO procedure, AMAFCA will determine or measure, as technically feasible, the necessary data elements required for calculation of the predicted incidental takes during qualifying storm events. The definition of a qualifying storm event (for this Permit Activity) may be reassessed for NDC Outfall and Embayment area. This activity may require additional follow-up with the EPA and the USFWS. The Annual Incidental Take Report will be provided with each Annual Report.	• AMAFCA will complete the Annual Incidental Take Report. • AMAFCA will provide EPA and USFWS with a copy of the Annual Incidental Take Report with each Annual Report submitted no later than December 1st for the preceding calendar year, as required under Part III.B.	Progress reports submitted with subsequent annual reports, as applicable (Due Dec. 1).
Not Included in NOI	17	According to the requirements in Part I.C.3.a.(ii).(b), the permittees (COA and AMAFCA) shall provide: B. A summary of data and findings with each annual report to EPA and the FWS. All data collected (including provisional oxygen and water temperature data, and associated metadata), transferred, stored, summarized, and evaluated shall be included in the annual report. If additional data is requested by EPA or the FWS, COA and AMAFCA shall provide such information within two weeks upon request. The revised strategy required under Part I.C.3.a.(ii),the Annual Incidental Take Reports required under Part I.C.3.a.(ii).(b).A, and annual reports required under Part III.B can be submitted to FWS via e-mail nmesfo@fws.gov and Joel lusk@fws.gov, or by mail to the New Mexico Ecological Services field office, 2105 Osuna Road NE, Albuquerque, New Mexico 87113. [Note - as of July 2022, Debra Hill is the new contact at USFWS.]	Part I.C.3.a.(ii).(b).B - AMAFCA will provide EPA and USFWS with the necessary data elements required for calculation of the predicted incidental takes during qualifying storm events and the Annual Incidental Take Report, required under Part I.C.3.a.(ii).(b).A. If additional data is requested by EPA or the USFWS, AMAFCA will provide requested information within two (2) weeks upon request. AMAFCA will assess the DO on the same time frame as the MS4 Permit requires for the Annual Report – July 1 to June 30. Each Annual Report will be submitted no later than December 1 for the preceding calendar year, as required under Part III.B.	• AMAFCA will provide EPA and USFWS the required data and information with each Annual Report submittal, required under Part III.B, no later than December 1 for the proceeding calendar year.	Progress reports submitted with subsequent annual reports, as applicable (Due Dec. 1).

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	18	**Compliance with Water Quality Standards – PCBs - Part I.C.1.e**			
Not Included in NOI	19	According to the requirements in Part I.C.1.e, the permittee shall address concerns regarding PCBs in channel drainage areas specified in Part I.C.1.e.(vi) by developing or continue updating/revising and implementing a strategy to identify and eliminate controllable sources of PCBs that cause or contribute to exceedances of applicable water quality standards in waters of the United States. COA and AMAFCA shall submit a progress report with the first and with the subsequent annual reports.	Part I.C.1.e - The results from the 2012-2014 monitoring of the NDC watershed indicated the presence of PCBs at the Grantline and N. Camino Inlets. Based on the data, MS4 partners concluded that there are no "hot spots" in the municipal area that are continuing to produce PCBs with the possible exception of the Grantline and N. Camino watersheds. In 2014-2017, AMAFCA continued activities to identify and eliminate controllable sources of PCBs specific to these two channels. A water quality consultant was tasked with reviewing and assessing all past PCB data for the NDC, identifying commercial and industrial properties that may have contributed PCBs to the North Camino and the Grantline Channel, researching past PCB releases from PNM in these areas, and providing additional PCB monitoring activity recommendations. In addition, a Field Sampling Plan (FSP), Sampling Analysis Plan (SAP), and a Quality Assurance Project Plan (QAPP) for soil and sediment sampling were developed. Sediment sampling and analysis for PCBs in the North Camino and the Grantline Channel were provided to NMED for consultation and direction. Based on the data collection and analysis results from the first five (5) years of the MS4 Permit term (2014-2019), AMAFCA has met its goals and objectives related to the PCB investigation and no further PCB sampling by AMAFCA is anticipated. If future PCB sampling is needed, AMAFCA will utilize the developed FSP, SAP, and QAPP and coordinate with EPA, NMED, and other MS4s, as applicable.	• Based on the data collection and analysis results from the first five (5) years of the MS4 Permit term (2014-2019), AMAFCA has met its goals and objectives related to the PCB investigation and no further PCB sampling by AMAFCA is anticipated. If future PCB sampling is required, AMAFCA will utilize the developed FSP, SAP, and QAPP and coordinate with EPA, NMED, and other MS4s, as applicable.	Progress reports submitted with subsequent annual reports, as applicable (Due Dec. 1).
Not Included in NOI	20	Part I.C.1.e - The progress reports shall include: (i) Summary of data. (ii) Findings regarding controllable sources of PCBs in the channel drainages area specified in Part I.C.1.e.(vi) that cause or contribute to exceedances of applicable water quality standards in waters of the US via the discharge of municipal stormwater. (iii) Conclusions drawn, including supporting information for any determinations. (iv) Activities undertaken to eliminate controllable sources of PCBs in the drainage areas specified in Part I.C.1.e. (vi) that cause or contribute to exceedances of applicable water quality standards in waters of the US via the discharge of municipal stormwater including proposed activities that extend beyond the 5 year permit term. (v) Account of stakeholder involvement in the process. (vi) Channel Drainage Areas: The PCB strategy required in Part I.C.1.e is only applicable to: COA and AMAFCA Areas: San Jose Drain and North Diversion Channel. Bernalillo County Areas: Adobe Acres Drain, Alameda Outfall Channel, Paseo del Norte Outfall Channel, and Sanchez Farm Drainage Area.	Part I.C.1.e - Based on ownership responsibilities and permit requirements, COA was tasked with taking the lead regarding follow-up PCB permit activities on the San Jose Drain (SJD), and AMAFCA was identified to follow-up PCB permit activities on the NDC. Bernalillo County was identified to investigate on Adobe Acres Drain, Alameda Outfall Channel, Paseo del Norte Outfall Channel, and Sanchez Farm Drainage Area, as assigned in the MS4 Permit. Based on the data collection and analysis results from the first five (5) years of the MS4 Permit term (2014-2019), AMAFCA has met its goals and objectives related to the PCB investigation and no further PCB sampling by AMAFCA is anticipated. Additional information will be provided to NMED for consultation and direction. If future PCB sampling is required, AMAFCA will utilize the developed FSP, SAP, and QAPP and coordinate with EPA, NMED, and other MS4s, as applicable. Compliance Monitoring Cooperative (CMC) monitoring is not required until a new MS4 Permit is issued. However, the CMC members will evaluate and may choose to continue sampling to support their MS4 program needs during administrative continuance. CMC monitoring would include collecting samples, and screening for PCBs, at two (2) locations within the Rio Grande - one upstream of the MS4 and one downstream of the MS4. This program uses Method 1668 for testing PCBs. Monitoring results obtained from the CMC stormwater quality monitoring are available upon request.	• Based on the data collection and analysis results from the first five (5) years of the MS4 Permit term (2014-2019), AMAFCA has met its goals and objectives related to the PCB investigation and no further PCB sampling by AMAFCA is anticipated. If future PCB sampling is required, AMAFCA will utilize the developed FSP, SAP, and QAPP and coordinate with EPA, NMED, and other MS4s, as applicable. • Additional information will be provided to NMED. The Annual Report will serve as the progress report for additional PCB findings, if applicable. AMAFCA will incorporate documentation by reference into the Annual Report and plans to document progress on the AMAFCA website.	Progress reports submitted with subsequent annual reports, as applicable (Due Dec. 1).

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Not Included in NOI	21	Part I.C.1.e.(vi) - A cooperative strategy to address PCBs in the COA, AMAFCA and Bernalillo County's drainage areas may be developed between Bernalillo County, AMAFCA, and COA. If a cooperative strategy is developed, the cooperative strategy shall be submitted to EPA within three (3) years from the effective date of the permit and submit a progress report with the fourth and with subsequent annual reports, Note: COA and AMAFCA must continue implementing the existing PCB strategy until a new Cooperative PCB Strategy is submitted to EPA.	Part I.C.1.e.(vi) - An updated cooperative strategy, if warranted, will be discussed with COA, AMAFCA, and Bernalillo County through the cooperative MS4 Technical Advisory Group (MS4 TAG). If a cooperative strategy is agreed to, work will begin to develop an agreement and develop a cooperative strategy to submit to EPA.	• AMAFCA will discuss the updated cooperative strategy option, if warranted, with COA and Bernalillo County through the cooperative MS4 TAG.	If cooperative agreement - submit within 3 years of effective date of the permit Dec. 22, 2017

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	22	**Compliance with Water Quality Standards – Temperature - Part I.C.1.f**			
Not Included in NOI	23	According to the requirements in Part I.C.1.f, the permittees must continue assessing the potential effect of stormwater discharges in the Rio Grande by collecting and evaluating additional data. If the data indicates there is a potential of stormwater discharges contributing to exceedances of applicable temperature water quality standards in waters of the United States, within 30 days such as findings, the permittees must develop and implement a strategy to eliminate conditions that cause or contribute to these exceedances. If the data indicates there is a potential of stormwater discharges contributing to exceedances of applicable temperature water quality standards in waters of Rio Grande, within 30 days such as findings, the permittees must develop and implement a strategy to eliminate conditions that cause or contribute to these exceedances.	Part I.C.1.f - AMAFCA and the original MS4 co-permittees (COA, NMDOT, and UNM) under MS4 Permit No. NMS000101 do not believe that stormwater discharges adversely affect temperature in the Rio Grande. In order to prove this assertion, temperature data was assembled and analyzed. This data analysis proved the assertion that the receiving waters of the Rio Grande are not adversely affected by the temperature of stormwater from the Albuquerque MS4. This data was presented in an initial report that was submitted to EPA on May 1, 2012. However, to meet the MS4 Permit requirements, AMAFCA continued assessing the potential effect of stormwater discharges in the Rio Grande by collecting and evaluating additional temperature data. From 2012 to 2017, temperature monitoring never showed a temperature exceedance at any of the monitoring locations in the watershed.	• AMAFCA's measurable goals for compliance with the Permit activities are described in the sections below.	See specific Permit activity schedules below.
Not Included in NOI	24	The strategy must include: Part I.C.1.f.(i) - Identify structural controls, post construction design standards, or pollutants contributing to raised temperatures in the receiving waters of the Rio Grande. Both dry and wet weather discharges shall be addressed. Assessment may be made using available data or collecting additional data; Part I.C.1.f.(ii) - Develop and implement controls to eliminate structural controls, post construction design standards, or the discharge of pollutants at levels that cause or contribute to exceedances of applicable water quality standards for temperature in waters of the United States; and	Part I.C.1.f.(i) - AMAFCA has data supporting the assertion that stormwater discharges do not adversely affect temperature in the Rio Grande. Assessment continues using temperature data collected in the Rio Grande using sondes (sondes are part of the Dissolved Oxygen - Compliance with Water Quality Standards and Endangered Species Act MS4 Permit program requirements). The sondes in the Rio Grande have near real-time telemetry capabilities. The sonde locations throughout the length of the Rio Grande within the UA will assist AMAFCA with bracketing segments of the Rio Grande to better understand elements that may be contributing to high temperatures in the receiving waters of the Rio Grande. Part I.C.1.f.(ii) - If the temperature data trends begins to indicate that stormwater discharges are adversely affecting temperature in the Rio Grande, AMAFCA will develop a strategy to understand the causes and contributions. If this occurs, AMAFCA will work with the TAG in developing this strategy as it relates to the watershed. It is anticipated that development of controls will be a part of the strategy. The 30 day timeline in the MS4 Permit is not long enough to develop and implement a watershed wide strategy; AMAFCA will also work with EPA, as required, to develop a reasonable time frame.	• Temperature data will continue to be collected in the Rio Grande using sondes. The sonde data will be available upon request.	No Permit required schedule.
Not Included in NOI	25	Part I.C.1.f.(iii) - Provide a progress report with the first and with subsequent Annual Reports. The progress reports shall include: (a) Summary of data. (b) Activities undertaken to identify MS4 discharge contribution to exceedances of applicable temperature water quality standards in waters of the United States. (c) Conclusions drawn, including supporting information for any determinations. (d) Activities undertaken to reduce MS4 discharge contribution to exceedances of applicable temperature water quality standards in waters of the United States. (e) Accounting of stakeholder involvement.	Part I.C.1.f.(iii) - AMAFCA will include progress regarding temperature impacts from stormwater to the Rio Grande that include adherence to schedule, activities undertaken, monitoring results, and conclusions drawn with Annual Reports, as applicable. AMAFCA will incorporate documentation by reference into the Annual Report and plans to document progress on the AMAFCA website. AMAFCA has provided data from 2012 to 2017 showing that the Rio Grande is not adversely affected by the temperature of stormwater from the Albuquerque MS4. The temperature monitoring results do not show a temperature exceedance at any of the monitoring locations in the watershed.	• Any update of data, activities, and conclusions regarding temperature impacts from stormwater to the Rio Grande will be provided with each Annual Report, if applicable. AMAFCA will incorporate documentation by reference into the Annual Report and plans to document progress on the AMAFCA website.	Progress reports submitted with subsequent annual reports, as applicable (Due Dec. 1).

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	26	**Discharges to Impaired Waters With Approved TMDLs - Part I.C.2.b.(i) and TABLE 1.a - TMDL Bacteria Program- Part I.C.2.b.(iii)**			
Not Included in NOI	27	According to the requirements in Part I.C.2.b.(i), if the permittee discharges to an impaired water body with an approved TMDL (see MS4 Permit, Appendix B), where stormwater has the potential to cause or contribute to the impairment, the permittee shall include in the SWMP controls targeting the pollutant(s) of concern along with any additional or modified controls required in the TMDL and this section. As stated in the Permit, Appendix B, a bacteria TMDL for the Middle Rio Grande was approved by the New Mexico Water Quality Control Commission on April 13, 2010, and by EPA on June 30, 2010. The new TMDL modifies: 1) the indicator parameter for bacteria from fecal coliform to E. coli, and 2) the way the WLAs are assigned The SWMP and required Annual Reports must include information on implementing any focused controls required to reduce the pollutant(s) of concern as described below:	Part I.C.2.b.(i) - A bacteria TMDL for the Middle Rio Grande was approved by the New Mexico Water Quality Control Commission on April 13, 2010, and by EPA on June 30, 2010. AMAFCA's proposed plans for compliance with the Permit activities are described in the sections below.	AMAFCA's measurable goals for compliance with the Permit activities are described in the sections below.	See specific Permit activity schedules below.
Not Included in NOI	28	Part I.C.2.b.(i).(a), Targeted Controls: The SWMP submitted with the first Annual Report must include a detailed description of all targeted controls to be implemented, such as identifying areas of focused effort or implementing additional BMPs that will be implemented to reduce the pollutant(s) of concern in the impaired waters. and Part I.C.2.b.(i).(b), Measurable Goals: For each targeted control, the SWMP must include a measurable goal and an implementation schedule describing BMPs to be implemented during each year of the permit term. Where the impairment is for bacteria, the permittee must, at minimum comply with the activities and schedules described in Table 1.a of Part I.C.2.b.(iii). As required in Part I.C.2.b.(i).(e),the permittee shall include focused BMPs addressing the five areas below: A. Sanitary Sewer Systems - improve sanitary sewers; fix lift stations; identify and implement O&M procedures; improve violation reporting; and prevent overflows; B. On-site Sewage Facilities - address failing systems and inadequate maintenance of On-Site Sewage Facilities;	Part I.C.2.b.(i).(a), (b), & (e) -AMAFCA's proposed plan for targeted controls and measurable goals (see column to right) for bacteria include: A. Sanitary Sewer Systems - Targeted Controls: There are no sanitary sewer systems owned or operated by AMAFCA within AMAFCA owned property. Related to the Illicit Discharges and Improper Disposal Control Measure, AMAFCA will receive monthly DMRs of sanitary sewer overflows (SSO) from ABCWUA. These will be evaluated to ensure that the SSOs did not adversely impact AMAFCA facilities. B. On-site Sewage Facilities - Targeted Controls: There are no on-site sewage facilities owned or operated by AMAFCA within AMAFCA-owned property.	A. Sanitary Sewer Systems - Measurable Goals: •There are no sanitary sewer systems owned or operated by AMAFCA within AMAFCA-owned property. • Through the IDDE Program, AMAFCA will continue coordination with ABCWUA, who will inform AMAFCA of any SSOs that potentially impact AMAFCA facilities. AMAFCA will receive monthly DMRs of SSOs from ABCWUA. These will be evaluated to ensure that the SSOs did not adversely impact AMAFCA facilities. B. On-site Sewage Facilities - Measurable Goals: • Not applicable to AMAFCA	Address targeted controls in SWMP. Progress reports submitted with each Annual Report cover letter, as applicable (Due Dec. 1).

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Not Included in NOI	29	Continuation of five areas in Part I.C.2.b.(i).(e) - C. Illicit Discharges and Dumping - effort to reduce waste sources of bacteria; for ex., septic systems, grease traps, and grit traps; D. Animal Sources - management programs to identify and target sources such as zoos, pet waste, and horse stables; E. Residential Education - bacteria from residential sites; fats, oils, and grease (FOG) clogging sanitary sewer lines and resulting overflows; decorative ponds; and pet waste.	Part I.C.2.b.(i).(a), (b), & (e) - Continuation - AMAFCA's proposed plan for targeted controls and measurable goals (see column to right) for bacteria include: C. Illicit Discharges and Dumping - Targeted Controls: AMAFCA has a robust IDDE Program. In the IDDE program, AMAFCA has focused on homeless camp cleanup and other efforts that target sources of bacteria. In addition, AMAFCA has manual and mechanical trash contracts to address IDDE cleanup. Refer to the Illicit Discharges and Improper Disposal Control Measure for additional information. D. Animal Sources - Targeted Controls: AMAFCA will continue its focus on reducing pet waste through its Mutt Mitt Stations Program and its involvement with the MRGSQT educational outreach "Scoop the Poop" and/or "There is No Poop Fairy" campaigns. E. Residential Education - Targeted Controls: AMAFCA will address this area through Public Education and Outreach and Public Involvement and Participation Control Measures through its involvement with the MRGSQT.	C. Illicit Discharges and Dumping - Measurable Goals: • AMAFCA will address the Illicit Discharge and Dumping through its IDDE Program; refer to the Illicit Discharges and Improper Disposal Control Measure for additional information. This IDDE program includes illicit discharge monitoring by AMAFCA staff and crew that often involves discussion at staff meetings. Reports of discharge are cooperatively investigated by staff including, if appropriate, documentation procedures. An annual budget line item exists for contracts to address IDDE cleanup. D. Animal Sources - Measurable Goals: • AMAFCA will continue to provide Mutt Mitt Stations and bags in an effort to reduce pet waste reaching stormwater. • AMAFCA will continue to contribute and participate in the MRGSQT. Through the MRGSQT, pet waste will be targeted through the "Scoop the Poop" and/or "There is No Poop Fairy" campaigns and other programs. E. Residential Education - Measurable Goals: • The MRGSQT Outcomes Report will summarize the activities and is available upon request.	Address measurable goals of targeted controls in SWMP. Progress reports submitted with each Annual Report cover letter, as applicable (Due Dec. 1).
	30	Part I.C.2.b.(i).(c).B - Identification of Measurable Goal: The SWMP must identify a measurable goal for the pollutant(s) of concern. The value of the measurable goal must be based on one of the following options in the Permit - AMAFCA is using Option B: B. Alternatively, if multiple permittees are discharging into the same impaired water body with an approved TMDL (which has an aggregate WLA for all permitted stormwater MS4s), the MS4s may combine or share efforts, in consultation with/and the approval of NMED, to determine an alternative sub-measurable goal derived from the WLA for the pollutant(s) of concern (e.g., bacteria) for their respective MS4. The SWMP must clearly define this alternative approach and must describe how the sub-measurable goals would cumulatively support the aggregate WLA. Where an aggregate WLA measurable goal has been broken into sub-measurable goals for individual MS4s, each permittee is only responsible for progress in meeting its WLA sub-measurable goal.	Part I.C.2.b.(i).(c).B - AMAFCA identified in its NOI that it was seeking, as part of a group of MS4s, an alternative sub-measurable goal for TMDL control under this part of the Permit. NMED and EPA were informed of this decision and NMED has worked with the CMC to help establish the cooperative waste load allocation (WLA) values and methodology for calculating E. coli loading. AMAFCA will continue following the established methodology for applying this to the CMC monitoring results.	• AMAFCA, as part of the CMC, will use the analytical results obtained in the Rio Grande during the CMC sampling and calculate an E. coli loading to compare with the waste load allocation allotted for the cooperative portion for the two defined stream assessment units of the Rio Grande (Isleta Pueblo Boundary to Alameda and Alameda to Angostura Diversion Dam). These calculations will be provided in each Annual Report, if applicable, as part of the CMC monitoring memos. AMAFCA will incorporate documentation by reference into the Annual Report and plans to provide documentation on the AMAFCA website.	

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Not Included in NOI	31	According to the requirements in Part I.C.2.b.(i).(f), the permittee shall monitor or assess progress in achieving measurable goals and determining the effectiveness of BMPs, and shall include documentation of this monitoring or assessment in the SWMP and Annual Reports. In addition, the SWMP must include methods to be used. This program element may be coordinated with the monitoring required in Part III.A. The permittee may use the following methods either individually or in conjunction to evaluate progress towards the measurable goal and improvements in water quality as follows: A. Evaluating Program Implementation Measures or B. Assessing Improvements in Water Quality Progress towards achieving the measurable goal shall be reported in the Annual Report. Annual reports shall report the measurable goal and the year(s) during the permit term that the MS4 conducted additional sampling or other assessment activities.	Part I.C.2.b.(i).(f) - AMAFCA will assess and evaluate the program and progress in achieving the targeted controls and measurable goals listed above by documenting the educational outreach opportunities conducted and the number of individuals reached through the educational outreach program. AMAFCA will incorporate documentation by reference into the Annual Report. AMAFCA is part of the Compliance Monitoring Cooperative (CMC) group, established in 2016, with 12 watershed partners cooperating for the Wet Weather Monitoring Program requirements.	• The MRGSQT Outcomes Report will document the educational outreach opportunities conducted and the number of individuals reached through the educational outreach program. This report is available upon request. • AMAFCA will conduct stormwater monitoring in accordance with the Wet Weather Monitoring Program, Part III.A.1 as part of the CMC. The goals and plan for this program are described in the Wet Weather Monitoring Program portion of this SWMP.	Address monitoring and assessment of measurable goals of targeted controls in SWMP. Progress reports submitted with each Annual Report cover letter, as applicable (Due Dec. 1).
Not Included in NOI	32	Part I.C.2.b.(i).(g) - If, by the end of the 3rd year from the effective date of the permit, the permittee observes no progress toward the measurable goal either from program implementation or water quality assessments, the permittee shall identify alternative focused BMPs that address new or increased efforts towards the measurable goal. As appropriate, the MS4 may develop a new approach to identify the most significant sources of the pollutant(s) of concern and shall develop alternative focused BMPs (this may also include information that identifies issues beyond the MS4's control). These revised BMPs must be included in the SWMP and subsequent Annual Reports. Where the permittee originally used a measurable goal based on an aggregated WLA, the permittee may combine or share efforts with other MS4s discharging to the same impaired stream segment to determine an alternative sub-measurable goal for the pollutant(s) of concern for their respective MS4s, as described in Part I.C.2.b.(i).(c).B above. Permittees must document the proposed schedule for the development and subsequent adoption of alternative measurable goals for the pollutant(s) of concern for their respective MS4s and associated assessment of progress in meeting those individual goals.	Part I.C.2.b.(i).(g) - AMAFCA, in cooperation with the TAG, MRGSQT, and CMC has observed progress towards E. coli controls and measurable goals. The impairment for E. coli is listed on NMED's current State of New Mexico Clean Water Act Section 303(d)/Section 305(b) Integrated Report for 3 of the 4 assessment segments along the river within the Middle Rio Grande corridor; all 4 assessment segments in the Middle Rio Grande, from Isleta Pueblo Boundary to Angostura Diversion Dam, currently has an E. coli impairment. The CMC will continue to collect data during administrative continuance of the Permit to document the E. coli trend for the watershed . AMAFCA will annually assess and evaluate the program and progress in achieving the measurable goals listed in the sections above. AMAFCA will also continue to participate in regional water quality studies and plans, as opportunities become available, to continue to look for collaborative opportunities to improve this program.	• AMAFCA will continue to annually assess and evaluate the program and progress in achieving the measurable goals listed above. • AMAFCA will continue to participate in regional water quality studies and plans, as opportunities become available.	If required, end of the third year from the effective date of the permit. Dec. 22, 2017

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Not Included in NOI	33	Part I.C.2.b.(iii) - Table 1.a, Identify potential significant sources of the pollutant of concern entering your MS4.	Part I.C.2.b.(iii) - Table 1.a - In the Permit term, AMAFCA funded a Middle Rio Grande E. coli Analysis and Research report by water quality on-call engineer (CDM Smith), this is available from AMAFCA upon request. AMAFCA, through the MRGSQT, has contracted with BEMP to study E. coli at various locations along the Rio Grande during dry and wet weather in an effort to identify potential sources of E. coli.	• AMAFCA, with its former co-permittees from the 2012 MS4 Phase I Permit, have completed several studies related to identifying potential significant sources of the pollutant of concern entering the MRG Watershed MS4 area. The results of these studies are used to guide the overall program plan and goals. • AMAFCA, with the MRGSQT, has contracted with BEMP to study E. coli at various locations along the Rio Grande during dry and wet weather in an effort to identify potential sources of E. coli.	
Not Included in NOI	34	From Part I.C.2.b.(iii) - Table 1.a, Develop (or modify an existing program- for prior permittees under NMS000101) and implement a public education program to reduce the discharge of bacteria in municipal stormwater contributed by (if applicable) by pets, recreational and exhibition livestock, and zoos.	Part I.C.2.b.(iii) - Table 1.a - As stated above, AMAFCA will continue its focus on reducing pet waste through providing Mutt Mitt Stations and through continued involvement with the MRGSQT educational outreach "Scoop the Poop" campaign.	• AMAFCA will continue to provide Mutt Mitt Stations and bags. • AMAFCA will contribute and participate in the MRGSQT. • The MRGSQT Outcomes Report will summarize the activities related to targeting pet waste sources and residential education targeting bacteria sources. This report is available upon request.	16 months (cooperative) from effective date of MS4 Permit April 22, 2016
Not Included in NOI	35	From Part I.C.2.b.(iii) - Table 1.a, Develop (or modify an existing program- for prior permittees under NMS000101) and implement a program to reduce the discharge of bacteria in municipal stormwater contributed by areas within your MS4 served by on-site wastewater treatment systems.	Part I.C.2.b.(iii) - Table 1.a - As stated above, this is not applicable to AMAFCA. Through the IDDE Program, AMAFCA will continue coordination with ABCWUA, who will inform AMAFCA of any sanitary sewer overflows that adversely impact AMAFCA facilities.	• As stated above, this is not applicable to AMAFCA. Through the IDDE Program, AMAFCA will continue coordination with ABCWUA, who will inform AMAFCA of any sanitary sewer overflows that adversely impact AMAFCA facilities.	18 months (cooperative) from effective date of MS4 Permit June 22, 2016
Not Included in NOI	36	From Part I.C.2.b.(iii) - Table 1.a, Review results to date from the Illicit Discharge Detection and Elimination program (see Part I.D.5.e) and modify as necessary to prioritize the detection and elimination of discharges contributing bacteria to the MS4.	Part I.C.2.b.(iii) - Table 1.a - AMAFCA will incorporate this Permit requirement into the IDDE program, refer to the SWMP - Table 6: Illicit Discharges and Improper Disposal - for additional information.	• AMAFCA will address this Permit activity in the IDDE Program, refer to the SWMP - Table 6: Illicit Discharges and Improper Disposal - for additional information.	18 months (cooperative) from effective date of MS4 Permit June 22, 2016
Not Included in NOI	37	Part I.C.2.b.(iii) - Table 1.a - Develop (or modify an existing program- for prior permittees under NMS000101) and implement a program to reduce the discharge of bacteria in municipal stormwater contributed by other significant source identified in the Illicit Discharge Detection and Elimination program (see Part I.D.5.e).	Part I.C.2.b.(iii) - Table 1.a - This requirement will be addressed in conjunction with AMAFCA's IDDE Program, refer to the SWMP Table 6: Illicit Discharges and Improper Disposal, for additional information. AMAFCA will review its IDDE Program results annually and identify illicit discharges (specific as well as general types of discharges and/or locations of discharges) that contributed bacteria to the MS4. Strategies will be developed to address these specific or general IDDEs. Development and implementation of strategies will depend on the IDDE program results.	• AMAFCA will review its IDDE Program results annually.	16 months (if alone) or 20 months (cooperative) from effective date of MS4 Permit April. 22, 2016 or August 22, 2016
Not Included in NOI	38	Include in the Annual Reports progress on program implementation and reducing the bacteria and updates their measurable goals as necessary. As required in Part I.C.2.b.(i).(d), the Annual Report must include an analysis of how the selected BMPs have been effective in contributing to achieving the measurable goal and shall include graphic representation of pollutant trends, along with computations of annual percent reductions achieved from the baseline loads and comparisons with the target loads.	Part I.C.2.b.(i).(d) - The MRGSQT Outcomes Report will document the educational outreach opportunities conducted, number of individuals reached through the educational outreach program, and summarize the activities related to targeting pet waste sources as well as residential education targeting bacteria sources. This report is available upon request. In addition, if strategies are developed to address IDDEs found to contribute bacteria to the MS4, these will be reported in subsequent Annual Reports. AMAFCA will report annually on compliance monitoring to monitor and test for E. coli. This reporting will be done in accordance with Part III.A (Wet Weather Monitoring Program) of the MS4 Permit and will help with a water quality assessment of the overall watershed related to E. coli. Graphical representation of E. coli trends will also be completed annually.	• The MRGSQT Outcomes Report is available upon request. • AMAFCA will report annually on compliance monitoring to monitor and test for E. coli. This reporting will be done in accordance with Part III.A (Wet Weather Monitoring Program) of the MS4 Permit. • Graphical representation of E. coli trends will also be completed annually.	Progress reports submitted with subsequent annual reports, as applicable (Due Dec. 1).

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	39	**Discharges to Impaired Waters Without Approved TMDLs - Part I.C.2.b.(ii)**			
Not Included in NOI	40	According to the requirements in Part I.C.2.b.(ii), if the permittee discharges directly into an impaired water body without an approved TMDL, the permittee shall perform the following activities (described in sections below).	Part I.C.2.b.(ii) - The Rio Grande impairments are listed on the EPA Annual Report Summary Form, pages 1-2. The Tijeras Arroyo upstream of the Four Hills Bridge is impaired for nutrient/eutrophication. The Tijeras Arroyo upstream of the Four Hills Bridge is all privately owned land. AMAFCA's operation and maintenance authority and access to this segment of the Tijeras Arroyo terminate 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 Table 10 of the SWMP.	• Impairment for Dissolved Oxygen is addressed in the Endangered Species Act (ESA) section - Part I.C.3. The SWMP section for Part I.C.3 describes the proposed plan and measurable goals. • Impairment for PCBs is addressed in Compliance with Water Quality Standards - PCBs - Part I.C.1.e. The SWMP section for Part I.C.1.e describes the proposed plan and measurable goals. • Impairment for Temperature is addressed in Compliance with Water Quality Standards - Temperature - Part I.C.1.f. The SWMP section for Part I.C.1.f describes the proposed plan and measurable goals. • Compliance monitoring (Part III.A) includes Gross Alpha testing. Future assessment related to the impairment will be based on results of those samples.	
Not Included in NOI	41	Part I.C.2.b.(ii).(a) - The permittee shall: A. Determine whether the MS4 may be a source of the pollutant(s) of concern by referring to the CWA §303(d) list and then determining if discharges from the MS4 would be likely to contain the pollutant(s) of concern at levels of concern. The evaluation of CWA §303(d) list parameters should be carried out based on an analysis of existing data (e.g., IDDE Program) conducted within the permittee's jurisdiction. B. Ensure that the SWMP includes focused BMPs, and corresponding measurable goals, that the permittee will implement, to reduce, the discharge of pollutant(s) of concern that contribute to the impairment of the water body. Only applicable if the permittee determines that the MS4 may discharge the pollutant(s) of concern to an impaired water body without a TMDL. The SWMP submitted with the first Annual Report must include a detailed description of proposed controls to be implemented along with measurable goals. C. Amend the SWMP to include any BMPs to address the pollutant(s) of concern.	Part I.C.2.b.(ii).(a) - Most of the impaired pollutants of concern are specifically addressed in other sections of the MS4 Program and therefore in other sections of the SWMP. Please refer to: Dissolved Oxygen and Endangered Species Act (ESA) section - Part I.C.3; PCBs are addressed in Compliance with Water Quality Standards - PCBs - Part I.C.1.e; and Temperature is addressed in Compliance with Water Quality Standards - Temperature - Part I.C.1.f. Compliance monitoring (Part III.A) includes Gross Alpha testing. The testing will allow the CMC to determine the background level relative to stormwater discharges. Future assessment related to this impairment will be based on results of those samples.	• Refer to other SWMP sections for: - Dissolved Oxygen is addressed in the Endangered Species Act (ESA) section - Part I.C.3. - PCBs are addressed in Compliance with Water Quality Standards - PCBs - Part I.C.1.e. - Temperature is addressed in Compliance with Water Quality Standards - Temperature - Part I.C.1.f. • Compliance monitoring (Part III.A) includes Gross Alpha testing. Future assessment and strategies related to this impairment will be based on results of the stormwater samples.	

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	42	**Endangered Species Act (ESA) Requirements - Sediment Pollutant Load Reduction Strategy - Part I.C.3.b**			
Not Included in NOI	43	According to the requirements in Part I.C.3.b, the permittee must develop, implement, and evaluate a sediment pollutant load reduction strategy to assess and reduce pollutant loads associated with sediment (e.g., metals, etc. adsorbed to or traveling with sediment, as opposed to clean sediment) into the receiving waters of the Rio Grande. The strategy must include the following elements (see sections below):	Part I.C.3.b - AMAFCA's proposed plan for compliance with the Permit activities are described in the sections below.	AMAFCA's measurable goals for compliance with the Permit activities are described in the sections below.	See specific Permit activity schedules below.
Not Included in NOI	44	Part I.C.3.b.(i) - Sediment Assessment: The permittee must identify and investigate areas within its jurisdiction that may be contributing excessive levels (e.g., levels that may contribute to exceedance of applicable Water Quality Standards) of pollutants in sediments to the receiving waters of the Rio Grande as a result of stormwater discharges. The permittee must identify structural elements, natural or man-made topo-graphical and geographical formations, MS4 operations activities, and areas indicated as potential sources of sediments and pollutants in the receiving waters of the Rio Grande. At the time of assessment, the permittee shall record any observed erosion of soil or sediment along ephemeral channels, arroyos, or stream banks, noting the scouring or sedimentation in streams. The assessment should be made using available data from federal, state, or local studies supplemented as necessary with collection of additional data. The permittee must describe, in the first Annual Report, all standard operating procedures, quality assurance plans to assure that accurate data are collected, summarized, evaluated and reported.	Part I.C.3.b.(i) - All AMAFCA projects are regional flood control or water quality projects. Stormwater runoff from other MS4s enter AMAFCA facilities, which function as regional stormwater flood control and water quality BMPs to capture sediment from stormwater before the stormwater continues to the Rio Grande. In the MRG MS4 area, AMAFCA is not adversely 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. A large portion of AMAFCA's routine activities include sediment removal from its facilities. AMAFCA has implemented a crew tracking system to measure the sediment removed on an annual basis in its ROW. The data collected was used for the now completed Sediment Pollutant Load Reduction Strategy. AMAFCA has standard operating procedures (SOPs) related to operation and maintenance of its facilities.	• AMAFCA's facilities function as BMPs for sediment removal. • AMAFCA will continue documenting the sediment removal quantities annually.	No Permit required schedule. Progress Report for the entire Sediment Pollutant Load Reductions Strategy to be submitted with the fifth Annual Report. Dec. 1, 2019 Interim - Dec. 1, 2016 - AMAFCA has a procedure in place and has begun the tracking elements for this Sediment Assessment. AMAFCA will evaluate assessment program and modify, as needed, annually, to stay on schedule for the Progress Report due Dec. 1, 2019.
Not Included in NOI	45	Part I.C.3.b.(ii) - Estimate Baseline Loading: Based on the results of the sediment pollutants assessment required in Part I.C.3.b.(i) above, the permittee must provide estimates of baseline total sediment loading and relative potential for contamination of those sediments by urban activities for drainage areas, sub-watersheds, Impervious Areas (IAs), and/or Directly Connected Impervious Area (DCIAs) draining directly to a surface waterbody or other feature used to convey waters of the United States. Sediment loads may be provided for targeted areas in the entire Middle Rio Grande Watershed using an individual or cooperative approach. Any data available and/or preliminary numeric modeling results may be used in estimating loads.	Part I.C.3.b.(ii) - In 2016, the COA, with cooperation from AMAFCA and area MS4s, completed an initial sediment assessment, "City of Albuquerque 2016 Sediment Assessment". This initial study assisted in establishing the baseline for the sediment assessment. AMAFCA cooperated with Bernalillo County, who led the effort for the watershed to complete the estimated baseline sediment loading evaluation. Sediment loads are provided for targeted areas in the entire Middle Rio Grande Watershed using a cooperative approach. The "Progress Evaluation Report for the Sediment Pollutant Load Reduction Strategy" report, June 25, 2019 summarizes the sediment loading evaluation at five main outfalls into the Rio Grande. AMAFCA will review the "Progress Evaluation Report for the Sediment Pollutant Load Reduction Strategy" report and discuss the findings with the watershed MS4s. The information from this study may be used to guide the overall program plans and goals.	• AMAFCA will review the "Progress Evaluation Report for the Sediment Pollutant Load Reduction Strategy" report and discuss the findings with the watershed MS4s. The information from this study may be used to guide the overall program plans and goals. Updates to the Sediment Pollutant Load Reduction Strategy will be implemented, as applicable.	No Permit required schedule. Interim reporting on progress required annually. Progress Report for the entire Sediment Pollutant Load Reductions Strategy to be submitted with the fifth Annual Report. Dec. 1, 2019

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Not Included in NOI	46	Part I.C.3.b.(iii) - Targeted Controls: Include a detailed description of all proposed targeted controls and BMPs that will be implemented to reduce sediment pollutant loads, calculated in Part I.C.3.b.(ii) above, during the next ten (10) years of permit issuance. For each targeted control, the permittee must include interim measurable goals (e.g., interim sediment pollutant load reductions) and an implementation and maintenance schedule, including interim milestones, for each control measure, and as appropriate, the months and years in which the MS4 will undertake the required actions. Any data available and/or preliminary numeric modeling results may be used in establishing the targeted controls, BMPs, and interim measurable goals. The permittee must prioritize pollutant load reduction efforts and target areas (e. g. drainage areas, sub watersheds, IAs, DCIAs) that generate the highest annual average pollutant loads.	Part I.C.3.b.(iii) - AMAFCA facilities function as regional stormwater flood control and water quality BMPs to remove sediment from stormwater before the stormwater reaches the Rio Grande. In the MRG MS4 area, AMAFCA is not adversely 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. The completed analysis of the Sediment Assessment and Estimated Baseline Loading will be used by AMAFCA to improve their program to target and prioritize sediment removal throughout the watershed. AMAFCA will continue to estimate the annual volume of sediment removed The AMAFCA operations and maintenance crew and subcontractors document the volume of floatables, sediment, trash, and debris removed from AMAFCA facilities. AMAFCA will continue to utilize the 2017 updated, cooperative waste characterization study, updating the “AMAFCA/Albuquerque MS4 Floatable and Gross Pollutant Study” conducted in 2005, to assist with determining needed controls and BMPs that may be implemented to reduce sediment pollutant loads. AMAFCA will continue analyzing, planning, and constructing needed sediment control BMPs. AMAFCA's Mutt Mitt stations program will continue as a targeted BMP to reduce pollutants (specifically E. coli) present in sediment within the MS4.	• AMAFCA will review the "Progress Evaluation Report for the Sediment Pollutant Load Reduction Strategy" report and discuss the findings with the watershed MS4s. The information from this study may be used to guide the overall program plans and goals. Updates to the Sediment Pollutant Load Reduction Strategy will be implemented, as applicable. • AMAFCA will continue to estimate the annual volume of sediment removed. The AMAFCA operations and maintenance crew and subcontractors document the volume of floatables, sediment, trash, and debris removed from AMAFCA facilities. • AMAFCA will continue utilizing the updated, cooperative waste characterization study in the watershed to assist with determining required controls and BMPs that may be implemented to reduce sediment pollutant loads. • AMAFCA will continue analyzing, planning, and constructing needed sediment control BMPs. • AMAFCA will continue its Mutt Mitt program focusing on reducing pollutants (specifically E. coli) present in sediment within the MS4.	No Permit required schedule. Interim reporting on progress required annually. Progress Report for the entire Sediment Pollutant Load Reductions Strategy to be submitted with the fifth Annual Report. Dec. 1, 2019
Not Included in NOI	47	Part I.C.3.b.(iv) - Monitoring and Interim Reporting: The permittee shall monitor or assess progress in achieving interim measurable goals and determining the effectiveness of BMPs, and shall include documentation of this monitoring or assessment in the SWMP and Annual Reports. In addition, the SWMP must include methods to be used. This program element may be coordinated with the monitoring required in Part III.A.	Part I.C.3.b.(iv) - AMAFCA will annually assess progress for this program. AMAFCA will monitor the volume of sediment captured. AMAFCA will incorporate documentation by reference into the Annual Report. In addition, as mentioned above, AMAFCA will use the "Progress Evaluation Report for the Sediment Pollutant Load Reduction Strategy" report to guide the overall program plans and goals. Monitoring and assessment will be considered during the development of future program plans and goals.	• AMAFCA will incorporate documentation by reference into the Annual Report. • Documentation of volume of sediment removed will continue to be done using the crew tracking spreadsheet and procedure.	Update as necessary for SWMP and progress reports submitted with subsequent annual reports, as applicable.
Not Included in NOI	48	Part I.C.3.b.(v) - Progress Evaluation and Reporting: The permittee must assess the overall success of the Sediment Pollutant Load Reduction Strategy and document both direct and indirect measurements of program effectiveness in a Progress Report to be submitted with the fifth Annual Report. Data must be analyzed, interpreted, and reported so that results can be applied to such purposes as documenting effectiveness of the BMPs and compliance with the ESA requirements specified in Part I.C.3.b. The Progress Report must include: (a) A list of species likely to be within the action area: (b) Type and number of structural BMPs installed; (c) Evaluation of pollutant source reduction effects; (d) Any recommendation based on program evaluation; (e) Description of how the interim sediment load reduction goals established in Part I.C.3.b.(iii) were achieved; and (f) Future planning activities needed to achieve increase of sediment load reduction required in Part I.C.3.d.(iii).	Part I.C.3.b.(v) - AMAFCA facilities function as regional stormwater flood control and water quality BMPs to remove sediment from stormwater before the stormwater reaches the Rio Grande. In the MRG MS4 area, AMAFCA is not adversely 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. AMAFCA worked cooperatively with Bernalillo County, and City of Albuquerque, to complete this MS4 Permit requirement. The Progress Report on the Sediment Pollutant Load Reduction Strategy meets the MS4 Permit requirements, including: (a) A list of species likely to be within the action area: (b) Type and number of structural BMPs installed; (c) Evaluation of pollutant source reduction effects; (d) Any recommendation based on program evaluation; (e) Description of how the interim sediment load reduction goals established in Part I.C.3.b.(iii) were achieved; and (f) Future planning activities needed to achieve increase of sediment load reduction required in Part I.C.3.d.(iii). Related to the elements required by this Progress report, AMAFCA will continue to 1) maintain a cumulative list of AMAFCA's retrofit BMPs and 2) may utilize the AMAFCA Project Schedule process in part for identifying, ranking, and planning area BMPs to meet recommendations from this program evaluation.	• AMAFCA has completed this report and provided this to EPA with the FY 2019 Annual Report, December 1, 2019, a Progress Report on the Sediment Pollutant Load Reduction Strategy. AMAFCA cooperated with Bernalillo County, who led the effort for the watershed to complete the estimated baseline sediment loading. The City of Albuquerque and SSCAFCA also cooperated on this watershed wide strategy. • Related to requirement (c), AMAFCA will continue to maintain a cumulative list of AMAFCA's retrofit BMPs. AMAFCA will incorporate documentation by reference into the Annual Report and plans to document progress on the AMAFCA website. • Related to requirement (f) AMAFCA's Project Schedule process may be utilized in part for identifying, ranking, and planning area BMPs to meet recommendations from this program evaluation.	Progress Report to be submitted with the fifth Annual Report Dec. 1, 2019

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Not Included in NOI	49	Part I.C.3.b.(vi) - Critical Habitat: Verify that the installation of stormwater BMPs will not occur in or adversely affect currently listed endangered or threatened species critical habitat by reviewing the activities and locations of stormwater BMP installation within the location of critical habitat of currently listed endangered or threatened species at the FWS website http://criticalhabitat.fws.gov/crithab/.	Part I.C.3.b.(vi) - AMAFCA considers critical habitat for all of its projects, working closely with the USFWS and USACE, as required, and will continue this practice related to any BMPs installed related to sediment capture and removal.	• AMAFCA will continue its practice of coordination with the USFWS and USACE, as required, related to AMAFCA's facility construction projects.	No Permit required schedule. Ongoing requirement of the MS4 Permit.

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	50	**Part I.D.5 - Stormwater Management Plan (SWMP) Control Measures**			
	51	**TABLE 2: Construction Site Stormwater Runoff Control - Part I.D.5.a**			
See NOI Sections Below	52	Part I.D.5.a.(i) The permittee shall develop, revise, implement, and enforce a program to reduce pollutants in any stormwater runoff to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activity disturbing less than one acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. Permittees previously covered under permit NMS000101 or NMR040000 must continue existing programs, updating as necessary, to comply with the requirements of this permit. (Note: Highway Departments and Flood Control Authorities may only apply the construction site stormwater management program to the permittee's own construction projects).	Part I.D.5.a.(i) - AMAFCA does not have jurisdiction over COA or Bernalillo County departments responsible for planning, review, permitting, or approval of public and private construction activities. However, AMAFCA does have jurisdiction over AMAFCA construction projects. Therefore, AMAFCA's Construction Site Stormwater Runoff Control Program addresses stormwater management during construction of AMAFCA projects that result in a land disturbance of greater than or equal to one acre, specifically when the construction contract is under AMAFCA.	• Coordinate the Construction Site Stormwater Runoff Control Program requirements (as detailed in the Program and in sections below) for qualifying AMAFCA construction projects, as required under the Construction General Permit (CGP).	10 months from effective date of MS4 Permit Oct. 22, 2015
1.1	53	Development of an ordinance or other regulatory mechanism as required in Part I.D.5.a.(ii)(a).	Part I.D.5.a.(ii).(a) - To the extent permitted by law, AMAFCA will comply with the requirements of this section. As applicable, AMAFCA will begin inserting MS4 Permit elements into construction contracts to provide AMAFCA with an enforceable contract mechanism. AMAFCA will also continue to work with the cooperative MS4 Technical Advisory Group (TAG) and other agencies to discuss and help develop regulatory mechanisms. Except for special circumstances, AMAFCA's regular maintenance activities do not disturb more than 5 acres at a time.	• AMAFCA will begin inserting MS4 Permit elements into construction contracts to provide AMAFCA with an improved enforceable contract mechanism. • AMAFCA will continue to work with the MS4 TAG and other agencies to discuss and help develop regulatory mechanisms. • Except for special circumstances, AMAFCA's regular maintenance activities will not disturb more than 5 acres at a time.	18 months (cooperative) from effective date of MS4 Permit June 22, 2016
1.2	54	Develop requirements and procedures as required in Part I.D.5.a.(ii)(b) through Part I.D.5.a.(ii)(h). These Permit sections include requirements for AMAFCA to implement and enforce requirements for construction site operators to: Part I.D.5.a(ii).(b) - implement appropriate erosion and sediment control BMPs; Part I.D.5.a(ii).(c) - control waste at the construction site that may cause adverse impacts to water quality; Part I.D.5.a.(ii).(d) - Procedures for site plan review which incorporate consideration of potential water quality impacts; Part I.D.5.a.(ii).(e) - Procedures for receipt and consideration of information submitted by the public; Part I.D.5.a.(ii).(f) - Procedures for site inspection (during construction) and enforcement of control measures, including provisions to ensure proper construction, operation, maintenance, and repair.	Part I.D.5.a.(ii).(b) - As part of AMAFCA's Program, AMAFCA engineers will continue to review all site plans and the SWPPPs to ensure implementation of appropriate BMPs and consistency with federal, state, and local sediment and erosion control requirements for AMAFCA projects. Pre-construction meetings will be held prior to beginning construction and SWPPP BMPs will be reviewed and discussed. Part I.D.5.a.(ii).(c) - AMAFCA ensures control of waste at construction sites during the SWPPP review, in accordance with the MS4 and CGP requirements. Part I.D.5.a(ii).(d) - In a cooperative effort with COA and Bernalillo County, the AMAFCA reviews private development that has a connection to AMAFCA facilities for projects disturbing at least one (1) acre. This review includes stormwater conveyance, water quality, and erosion control. In addition, AMAFCA staff performs and will continue to perform incremental reviews of all AMAFCA projects during design to assure quality control and design efficiency. Part I.D.5.a.(ii).(e) - AMAFCA will post a contact phone number at all required construction sites to ensure the public can contact AMAFCA with information. Part I.D.5.a.(ii).(f) - AMAFCA has procedures for construction site inspections of control measures to ensure compliance with the Construction General Permit (CGP). AMAFCA also has procedures in place to ensure site stabilization after NOT is filed.	• Review site plans and the SWPPPs (using the EPA SWPPP checklist) for AMAFCA projects disturbing at least one (1) acre in order to consider potential water quality impacts and ensure consistency with federal, state, and local sediment and erosion control requirements. • Conduct pre-construction meetings on AMAFCA construction projects disturbing at least one (1) acre prior to beginning earth-disturbing activities in order to discuss the SWPPP and BMPs. • SWPPP review will include ensuring the plans addresses control of waste at construction sites for AMAFCA projects. • In a cooperative effort with COA and Bernalillo County, AMAFCA will review submitted private development that has a connection to AMAFCA facilities for projects disturbing at least one (1) acre. Review may include stormwater conveyance, water quality, and erosion control. • AMAFCA will post a contact phone number at all required construction sites. • AMAFCA will continue to utilize construction inspection procedures for control measures to ensure compliance with the Construction General Permit (CGP).	10 months from effective date of MS4 Permit Oct. 22, 2015

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	55	Continued...Develop requirements and procedures as required in Part I.D.5.a.(ii)(b) through Part I.D.5.a.(ii)(h). Part I.D.5.a.(ii).(g) - to educate and train permittee personnel and developers, construction site operators, contractors and supporting personnel; and Part I.D.5.a.(ii).(h) - for keeping records of and tracking all regulated construction activities within the MS4 - site reviews, inspections, inspection reports, warning letters and other enforcement documents. A summary of the number and frequency of site reviews, inspections (including inspector's checklist for oversight of sediment and erosion controls and proper disposal of construction wastes) and enforcement activities that are conducted annually and cumulatively during the permit term shall be included in each Annual Report.	Part I.D.5.a.(ii).(g) - AMAFCA will provide MS4 construction site inspection training for its staff and invite other agencies to attend trainings, when possible. In addition, construction site SWPPPs will continue to be discussed regularly by AMAFCA personnel. Part I.D.5.a.(ii).(h) - AMAFCA will maintain records of all AMAFCA-led projects disturbing at least one (1) acre within its rights-of-way. This will include AMAFCA's Construction Site Stormwater Runoff Control Program records, including NOIs, inspection reports, non-conformance documents, and training documents. AMAFCA's license agreements relative to CGP compliance for non-AMAFCA projects that occur within its rights-of-way are the responsibility of the licensee.	• AMAFCA will continue to provide MS4 construction site inspection training for its staff and invite other agencies responsible for construction projects. In addition, construction site SWPPPs will continue to be discussed at staff meetings, included in reports by field personnel, and discussed at AMAFCA Board meetings. • AMAFCA will maintain records of all construction projects disturbing at least one (1) acre within its rights-of-way that do not qualify for a Low Erosivity Waiver (LEW).	10 months from effective date of MS4 Permit Oct. 22, 2015
1.3	56	Part I.D.5.a.(iii). Annually conduct site inspections of 100 percent of all construction projects cumulatively disturbing one (1) or more acres as required in Part I.D.5.a.(iii).	Part I.D.5.a.(iii) - As part of AMAFCA's Program, AMAFCA staff will continue to perform field inspections of AMAFCA construction projects which disturb at least one (1) acre. At a minimum, each project will be inspected once after filing the NOI (including follow-up inspections for any nonconformances) and at the NOT. An inspection form has been developed and will be used for all inspections. Should the contractor fail to operate, maintain and repair the BMPs and control measures, AMAFCA staff have the contractual authority to temporarily suspend work, withhold/stop payment, or terminate the contract should such issues go uncorrected. AMAFCA's license agreements for non-AMAFCA projects that occur within its rights-of-way are not inspected by AMAFCA and are the responsibility of the licensee. As AMAFCA partners with other MS4s, such as COA, UNM, or ExpoNM on construction projects, AMAFCA will continue to coordinate with those cooperating MS4s in order to assign responsibility of conducting site inspections.	• AMAFCA will complete the inspections per the Construction Site Stormwater Runoff Control Program Plan for 100% of the active construction sites under contract by AMAFCA which disturb at least one (1) acre. • AMAFCA will maintain copies of the completed MS4 construction inspection forms. • AMAFCA will continue membership and involvement in the cooperative MS4 TAG, which will facilitate cooperation and coordination with other MS4s in the Middle Rio Grande.	10 months from effective date of MS4 Permit Oct. 22, 2015
1.4	57	Part I.D.5.a.(iv). Coordinate with all departments and boards with jurisdiction over the planning, review, permitting, or approval of public and private construction projects/activities within the permit area as required in Part I.D.5.a.(iv). Planning documents include, but are not limited to: comprehensive or master plans, subdivision ordinances, general land use plan, zoning code, transportation master plan, specific area plans, such as sector plan, site area plans, corridor plans, or unified development ordinances.	Part I.D.5.a.(iv) - AMAFCA does not have jurisdiction over the planning, review, permitting, or approval of non-AMAFCA public and private construction activities. Therefore, AMAFCA's program is limited to AMAFCA-owned properties. Regular coordination among AMAFCA staff, as well as with Board members, occurs and will continue. In a cooperative effort with COA and Bernalillo County, AMAFCA will continue to coordinate with and to review public and private development that has a connection to AMAFCA facilities for projects disturbing at least one (1) acre.	• AMAFCA will continue regular coordination amongst AMAFCA engineering staff and Board members to verify that BMPs are in place to control erosion during construction on AMAFCA-owned properties. • AMAFCA will continue to meet monthly with the Board and will continue to seek Board approval for jointly funded water quality projects. • In a cooperative effort with COA and Bernalillo County, AMAFCA reviews submitted public and private development that has a connection to AMAFCA facilities for projects disturbing at least one (1) acre. These reviews may include stormwater conveyance, water quality, and erosion control.	10 months from effective date of MS4 Permit Oct. 22, 2015

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1.5	58	Evaluation of GI/LID/Sustainable practices in site plan reviews as required in Part I.D.5.a.(v). The site plan review must include an evaluation of opportunities for use of GI/LID/ Sustainable practices and when the opportunity exists, encourage project proponents to incorporate such practices into the site design to mimic the pre-development hydrology of the previously undeveloped site. For purposes of this permit, pre-development hydrology shall be met according to Part I.D.5.b of this Permit (consistent with any limitations on that capture). Include a reporting requirement of the number of plans that had opportunities to implement these practices and how many incorporated these practices.	Part I.D.5.a.(v) - AMAFCA does not have jurisdiction over site plan reviews of public and private construction activities, and AMAFCA does not program any private development type projects. AMAFCA ultimately has no authority to accept or reject public and private development projects. AMAFCA will continue to encourage use of sustainable practices during the review phase of projects within AMAFCA's rights-of-way and turn-key projects that AMAFCA will take over for operation and maintenance after construction. AMAFCA will encourage an evaluation of sustainable GSI/LID practice opportunities within the watershed. The reporting requirement for the number of plans that AMAFCA reviews, typically because of a connection to an AMAFCA facility, that had opportunities to implement these practices will be reported annually. Because of lack of jurisdictional authority, AMAFCA is typically not told how many improvements were implemented. Therefore the number of improvements implemented will not be reported in the AMAFCA MS4 Annual Report.	• AMAFCA will continue to encourage use of sustainable practices during the review phase of projects. • AMAFCA will annually report the number of plans that were reviewed within AMAFCA's rights-of-way and turn-key projects that AMAFCA will take over for operation and maintenance after construction that had opportunities to implement GSI/LID/Sustainable practices.	14 months (cooperative) from effective date of MS4 Permit February 22, 2016
Not Included in NOI	59	Update the SWMP document and annual report as required in Part I.D.5.a.(vi) and in Part I.D.5.a.(vii). Part I.D.5.a.(vi) The permittee must include in the SWMP a description of the mechanism(s) that will be utilized to comply with each of the elements required in Part I.D.5.a.(i) throughout Part I.D.5.a.(v), including description of each individual BMP (both structural or non-structural) or source control measures and its corresponding measurable goal.	Part I.D.5.a.(vi) - The above sections of the SWMP describe the mechanism(s) AMAFCA utilizes to comply with each of the elements required in Part I.D.5.a.(i) throughout Part I.D.5.a.(v) and the corresponding measurable goal(s). AMAFCA will annually evaluate and revise the Construction Site Stormwater Runoff Control Program elements, as necessary, to ensure that AMAFCA's Program meets the MS4 Permit requirements.	• Evaluate and revise the Construction Site Stormwater Runoff Control Program, as necessary, to ensure that AMAFCA's Program meets the MS4 Permit requirements. Update the SWMP, as necessary.	Update as necessary for SWMP.
Not Included in NOI	60	Update the SWMP document and annual report as required in Part I.D.5.a.(vi) and in Part I.D.5.a.(vii). Part I.D.5.a.(vii) - The permittee shall assess the overall success of the program, and document the program effectiveness in the Annual Report. The permittee must include in each Annual Report: Part I.D.5.a.(vii).(a) - A summary of the frequency of site reviews, inspections and enforcement activities that are conducted annually and cumulatively during the permit term. Part I.D.5.a.(vii).(b) - The number of plans that had the opportunity to implement GI/LID/Sustainable practices and how many incorporated the practices.	Part I.D.5.a.(vii) - AMAFCA will assess the overall success of the program, and document the program effectiveness in the Annual Report. Part I.D.5.a.(vii).(a) - AMAFCA will include in each Annual Report a summary of the number and frequency of site reviews and inspections activities that are conducted annually and cumulatively during the permit term. Part I.D.5.a.(vii).(b) - AMAFCA will include the number of plans that had the opportunity to implement GSI/LID/Sustainable practices from the plans that were reviewed within AMAFCA's rights-of-way and turn-key projects that AMAFCA will take over for operation and maintenance after construction. AMAFCA ultimately lacks jurisdictional authority to accept public and private development projects.	• Included in each Annual Report will be a summary of the number and frequency of construction site reviews and inspection activities that are conducted annually and cumulatively during the Permit term. • Included in each Annual Report will be a summary of the plans that had the opportunity to implement GSI/LID/Sustainable practices from the plans that were reviewed within AMAFCA's rights-of-way and turn-key projects that AMAFCA will take over for operation and maintenance after construction. This documentation is included above.	Update as necessary for SWMP and information submitted with subsequent annual reports, as applicable.
1.6	61	Enhance the program to include the elements in Part I.D.5.a.(viii) through Part I.D.5.a.(x). These include: Part I.D.5.a.(viii) -Use of stormwater educational materials; Part I.D.5.a.(ix) - Develop or update existing construction handbooks; and Part I.D.5.a.(x) - construction inspections may be carried out in conjunction with other inspections and use a screening prioritization process.	Part I.D.5.a.(viii) - AMAFCA will continue to use stormwater educational materials, either developed locally or provided by EPA, NMED, environmental groups, public interest groups, trade organizations, and/or other MS4s. AMAFCA will continue to host training cooperative sessions with the watershed MS4s. Part I.D.5.a.(ix) - AMAFCA, along with other MS4s, provided external review to NMDOT on their 2020 update of the National Pollutant Discharge Elimination System Manual, Stormwater Management Guidelines for Construction, MS4 and Industrial Activities. Part I.D.5.a.(x) - AMAFCA will continue to incorporate a screening prioritization process for construction inspections relative to regular operational inspections.	• The MRGSQT Outcomes Report will summarize the activities where educational materials were dispersed and shared with the public. This report is available upon request. • AMAFCA will explore opportunities for training cooperative sessions held with the watershed MS4s during the reporting period. • AMAFCA will follow procedures, as applicable, outlined in the 2020 update of the National Pollutant Discharge Elimination System Manual, Stormwater Management Guidelines for Construction, MS4 and Industrial Activities. • AMAFCA will continue to incorporate a screening prioritization process for construction inspections relative to regular operational inspections.	Update as necessary for SWMP and information submitted with subsequent annual reports, as applicable.
1.7	62	Item from MS4 Permit NOI. Describe other proposed activities to address the Construction Stormwater Management in New Development and Redevelopment Measure.	AMAFCA will continue to utilize the Annual Report and SWMP revision process as a means to perform a self-audit with the goal to improve its MS4 Programs.	• AMAFCA will document progress made related to the Annual Report and SWMP revision process as a means to perform a self-audit on the MS4 Program elements.	No Permit required schedule. Ongoing requirement of the MS4 Permit.

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	63	**TABLE 3: Post-Construction Stormwater Management in New Development and Redevelopment- Part I.D.5.b**			
See NOI Sections Below	64	Part I.D.5.b.(i) The permittee must develop, revise, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the MS4. The program must ensure that controls are in place that would prevent or minimize water quality impacts. Permittees previously covered under NMS000101 or NMR040000 must continue existing programs, updating as necessary, to comply with the requirements of this permit. (Note: Highway Departments and Flood Control Authorities may only apply the post-construction stormwater management program to the permittee's own construction projects).	Part I.D.5.b.(i) - 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 COA, NMDOT, or Bernalillo County. AMAFCA facilities receive stormwater after it flows through new development and redevelopment. As a result, some permit activities in this section do not apply to AMAFCA. AMAFCA's routine operation & maintenance (O&M) activities address post-construction stormwater management at all AMAFCA facilities.	• Coordinate O&M activities at AMAFCA's staff meetings.	See specific Permit activity schedules below.
2.1	65	Development of strategies as required in Part I.D.5.b.(ii).(a). Strategies which include a combination of structural and/or non-structural BMPs to control pollutants in stormwater runoff.	Part I.D.5.b.(ii).(a) - All AMAFCA projects are regional flood control or stormwater quality projects - functioning as BMPs. AMAFCA will continue to include both structural and non-structural BMPs to control pollutants in stormwater runoff from AMAFCA owned facilities. AMAFCA may continue to coordinate with watershed MS4s and other entities within its jurisdiction to discuss areas requiring drainage and water quality improvements, project priorities, and multi-agency funding opportunities. As part of the development of the AMAFCA Project Schedule, a system review will be completed. AMAFCA will publish projects, including schedule and cost sharing, in the AMAFCA Project Schedule.	• AMAFCA will continue to include both structural and non-structural BMPs to control pollutants in stormwater runoff from AMAFCA owned facilities. • AMAFCA may coordinate with watershed MS4s as well as other entities within its jurisdiction during project review, complete a system review, and publish projects, including schedule and cost sharing, in the AMAFCA Project Schedule.	10 months from effective date of MS4 Permit Oct. 22, 2015
2.2	66	Development of an ordinance or other regulatory mechanism as required in Part I.D.5.b.(ii).(b).	Part I.D.5.b.(ii).(b) - It is not within AMAFCA's jurisdiction to enact ordinances or other legal authority mechanisms. AMAFCA is unable to develop, implement, or enforce any ordinances or regulatory mechanisms required in this section.	• AMAFCA will continue to work with the cooperative MS4 TAG and other agencies to discuss and help develop regulatory mechanisms.	24 months (cooperative) from effective date of MS4 Permit Dec. 22, 2016
2.3	67	Implementation and enforcement, via the ordinance or other regulatory mechanism of site design standards as required in Part I.D.5.b.(ii).(b).	Part I.D.5.b.(ii).(b) - It is not within AMAFCA's jurisdiction to enact ordinances or other legal authority mechanisms. AMAFCA is unable to develop, implement, or enforce any ordinances or regulatory mechanisms required in this section.	• AMAFCA will continue to work with the cooperative MS4 TAG and other agencies to discuss and help develop regulatory mechanisms.	36 months (cooperative) from effective date of MS4 Permit Dec. 22, 2017
2.4	68	Ensure appropriate implementation of post-construction structural controls as required in Part I.D.5.b.(ii).(c) and Part I.D.5.b.(ii).(d).	Part I.D.5.b.(ii).(c) - AMAFCA will continue to ensure the appropriate implementation of structural BMPs on AMAFCA owned projects through pre-construction design review (see Construction Site Stormwater Runoff Control Measure). For watershed cooperative elements, AMAFCA occasionally partners with other MS4s, such as the COA, UNM, and ExpoNM, on construction of structural BMPs. AMAFCA is also a member of the MS4 TAG. Part I.D.5.b.(ii).(d) - AMAFCA will conduct inspections at the beginning and end of construction, (see Construction Site Stormwater Runoff Control Measure), conduct Post-Construction inspection and maintenance (AMAFCA's routine O&M activities address post-construction stormwater management), and enforce contractual penalty provisions for noncompliance by the Operator during construction.	• AMAFCA will ensure the appropriate implementation of structural BMPs on AMAFCA owned projects through pre-construction design review (see Construction Site Stormwater Runoff Control Measure). • AMAFCA will continue to work with the watershed MS4s, TAG, and other agencies to discuss cooperative implementation of structural BMPs. • AMAFCA will conduct inspections as required during construction, (see Construction Site Stormwater Runoff Control Measure). • AMAFCA's Post-Construction inspections and maintenance will be through the AMAFCA O&M activities (see Pollution Prevention /Good Housekeeping Control Measure).	10 months from effective date of MS4 Permit Oct. 22, 2015

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2.5	69	Develop procedures as required in Part I.D.5.b.(ii).(e) - Procedure to develop and implement an educational program for project developers regarding designs to control water quality effects from stormwater, and a training program for plan review staff regarding stormwater standards, site design techniques and controls, including training regarding GI/LID/ Sustainability practices. Training may be developed independently or obtained from outside resources; Part I.D.5.b.(ii).(f) - Procedures for site inspection and enforcement to ensure proper long-term operation, maintenance, and repair of storm water management practices that are put into place as part of construction projects/activities; Part I.D.5.b.(ii).(g) - Procedures to control the discharge of pollutants related to commercial application and distribution of pesticides, herbicides, and fertilizers; and Part I.D.5.b.(ii). (h) - Procedure or system to review and update, as necessary, the existing program to ensure that storm water controls or management practices for new development and redevelopment projects/ activities continue to meet the requirements and objectives of the permit.	Part I.D.5.b.(ii).(e) - As a cooperative program, AMAFCA contributes to the Mid Rio Grande Stormwater Quality Team (MRGSQT), which includes training on GSI/LID/Sustainable practices. AMAFCA supports conference programming which reinforces GSI stormwater practices. Reporting on the MRGSQT activities will be part of Public Education and Outreach on Stormwater Impacts Control Measure. Part I.D.5.b.(ii).(f) - AMAFCA is responsible for all long term inspection, operation, maintenance, and repair of its own facilities. AMAFCA will perform inspections, maintenance and repair in accordance with the established procedures in the "AMAFCA O&M Manual for Dams", the "AMAFCA O&M Repair Replacement and Rehabilitation Manual", and Project O&M Plan (Plan No. 7). This is covered in the Pollution Prevention/Good Housekeeping Control Measure. Part I.D.5.b.(ii).(g) - AMAFCA will only allow licensed staff or professionally licensed contractors to apply herbicides and pesticides within AMAFCA rights-of-way (AMAFCA does not apply fertilizers in its operations). This is covered in the Pollution Prevention/Good Housekeeping Control Measure. Part I.D.5.b.(ii).(h) - AMAFCA's routine O&M activities address post-construction stormwater management at all AMAFCA facilities.	• As a cooperative program, AMAFCA contributes to the MRGSQT. AMAFCA's educational efforts are included in the MRGSQT Outcomes Report which will summarize, if applicable, the activities where educational materials were dispersed and shared with project developers. This report is available upon request. • AMAFCA will provide MS4 training for its staff and invite other agencies responsible for construction projects. AMAFCA may participate in other agencies' MS4 trainings. • AMAFCA's Post-Construction inspections and maintenance are conducted following the AMAFCA O&M procedures (see Pollution Prevention /Good Housekeeping Control Measure). • AMAFCA will only allow licensed staff or professionally licensed contractors to apply herbicides and pesticides within AMAFCA rights-of-way (AMAFCA does not apply fertilizers in its operations).	18 months (cooperative) from effective date of MS4 Permit June 22, 2016
2.6	70	Coordinate internally with all departments and boards with jurisdiction over the planning, review, permitting, or approval of public and private construction projects/ activities within the permit area as required in Part I.D.5.b.(iii) related to developed hydrology mimicking pre-development hydrology.	Part I.D.5.b.(iii) - AMAFCA does not have any internal departments or boards with jurisdiction. AMAFCA will coordinate with all entities as necessary. AMAFCA will coordinate internally and, to the extent possible and applicable, design AMAFCA facilities for compliance with developed hydrology mimicking pre-development hydrology. For AMAFCA led DMPs, Sediment Studies, Facility Plans, and WQ studies, AMAFCA will require, to the extent possible and applicable, that developed hydrology mimic pre-development hydrology. The NM OSE regulates the water delivery to the Rio Grande in order to meet water delivery requirements to Texas; therefore, AMAFCA's objective is to design its facilities to drain within 96 hours per the OSE requirements.	• AMAFCA will coordinate internally on studies and projects for MS4 Permit compliance with developed hydrology mimicking pre-development hydrology. AMAFCA will abide by the NM OSE rule and plan/design its facilities to drain within 96 hours per the OSE requirements. • AMAFCA will continue to follow the standard practice for Drainage Master Plans (DMPs) options development and consider two options for developed condition hydrology flowrates and volumes: 1) determine pond locations and volumes required on a sub-basin by sub-basin basis to mimic pre-development hydrology and, 2) determine pond locations and volumes required on a regional approach basis to mimic pre-development hydrology.	10 months from effective date of MS4 Permit Oct. 22, 2015
2.7	71	As required in Part I.D.5.b.(iv), the permittee must assess all existing codes, ordinances, planning documents and other applicable regulations, for impediments to the use of GI/LID/Sustainable practices.	Part I.D.5.b.(iv) - AMAFCA does not have jurisdictional authority pertaining to codes, ordinances, planning documents and other applicable regulations, for impediments to the use of GSI/LID/Sustainable practices. AMAFCA will provide information, as requested, and coordinate with other watershed MS4s for assessment of existing codes, ordinances, planning documents and other applicable regulations for impediments to the use of GSI/LID/Sustainable practices. The NM OSE regulates the water delivery to the Rio Grande in order to meet water delivery requirements to Texas; therefore, AMAFCA's objective is to design its facilities to drain within 96 hours per the OSE requirements.	• AMAFCA will provide information, as requested, and coordinate and cooperate with other watershed MS4s for the assessment of existing codes, ordinances, planning documents, and other applicable regulations for impediments to the use of GSI/LID/Sustainable practices.	2 years from effective date of MS4 Permit Dec. 22, 2016

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2.8	72	As required in Part I.D.5.b.(iv), develop and submit a report of the assessment findings on GI/LID/Sustainable practices.	Part I.D.5.b.(iv) - AMAFCA does not have jurisdictional authority pertaining to codes, ordinances, planning documents and other applicable regulations, for impediments to the use of GSI/LID/Sustainable practices. However, to the extent permitted by law, AMAFCA will comply with the requirements of this section. AMAFCA will provide information, as requested, and coordinate with other watershed MS4s for assessment of existing codes, ordinances, planning documents and other applicable regulations for impediments to the use of GSI/LID/Sustainable practices.	**Met Permit Requirement - Activity is Complete. No additional measurable goals.** • AMAFCA provided information, as requested, and coordinated and cooperated with other watershed MS4s for the development of a report of the assessment of finding from Part I.D.5.b.(iv). This was completed in March 2017 and was submitted to the EPA with the Annual Report, due Dec. 1, 2017.	27 months (cooperative) from effective date of MS4 Permit March 22, 2017
Not Included in NOI	73	As required in Part I.D.5.b.(v), Alternative compliance for infeasibility due to Site Constraints. Part I.D.5.b.(v).(a) - Infeasibility to manage the design standard volume specified in Part I.D.5.b.(ii).(b), or a portion of the design standard volume, onsite may result from site constraints including: A. too small a lot outside of the building footprint to create the necessary infiltrative capacity even with amended soils; B. soil instability as documented by a thorough geotechnical analysis; C. a site use that is inconsistent with capture and reuse of storm water; D. other physical conditions; or, E. to comply with applicable requirements for on-site flood control structures leaves insufficient area to meet the standard. Part I.D.5.b.(v).(b) - A determination that it is infeasible to manage the design standard volume specified in Part I.D.5.b.(ii).(b), or a portion of the design standard volume, on site may not be based solely on the difficulty or cost of implementing onsite control measures, but must include multiple criteria that rule out an adequate combination of the practices set forth in Part I.D.5.b.(v).	Part I.D.5.b.(v).(a) and (b) - As previously mentioned, all AMAFCA projects are regional flood control or stormwater quality projects that function as BMPs, and AMAFCA does not have jurisdictional authority pertaining to new development or redevelopment activities. Therefore, AMAFCA itself will likely not have requirements for alternative compliance regarding infeasibility to manage the post construction design standard volume. However, AMAFCA's regional facilities may offer other MS4s an option for alternative compliance to manage the post-construction stormwater quality volume. The on-site stormwater management decisions and feasibility will typically be determined during development by other agencies (COA, Bernalillo County, etc.). AMAFCA will continue coordination with and support these agency decisions, as appropriate. AMAFCA's involvement will typically occur during the development review or stake-holder review.	• AMAFCA will continue to coordinate with and support these agency decisions, as appropriate, related to on-site stormwater management decisions and feasibility. AMAFCA's involvement will typically occur during the development review or stake-holder review. AMAFCA's regional facilities may offer other MS4s an option for alternative compliance to manage the post-construction stormwater quality volume.	No Permit required schedule.
Not Included in NOI	74	Part I.D.5.b.(v) continued - Part I.D.5.b.(v).(c) - This permit does not prevent imposition of more stringent requirements related to flood control. Where both the permittee's site design standard ordinance or policy and local flood control requirements on site cannot be met due to site conditions, the standard may be met through a combination of on-site and off-site controls. Part I.D.5.b.(v).(d) - Where applicable New Mexico water law limits the ability to fully manage the design standard volume on site, measures to minimize increased discharge consistent with requirements under New Mexico water law must still be implemented. Part I.D.5.b.(v).(e) - In instances where an alternative to compliance with the standard on-site is chosen, technical justification as to the infeasibility of on-site management of the entire design standard volume, or a portion of the design standard volume, is required to be documented by submitting to the permittee a site-specific hydrologic and/or design analysis conducted and endorsed by a registered professional engineer, geologist, architect, and/or landscape architect.	Part I.D.5.b.(v).(c) - AMAFCA's primary function is to provide regional flood control; this includes stormwater quality projects that function as BMPs. Flood control requirements will continue to be required. Part I.D.5.b.(v).(d) - The NM ISC/OSE regulates the water delivery to the Rio Grande in order to meet water delivery requirements to Texas; therefore, AMAFCA's objective is to design its facilities to drain within 96 hours per the OSE requirements. Using AMAFCA facilities for off-site mitigation would assure the community that New Mexico water law limits are being met at the AMAFCA facilities. Part I.D.5.b.(v).(e) - Alternatives to compliance for on-site requirements are discussed below. AMAFCA itself will likely not have requirements for alternative compliance regarding infeasibility to manage the post construction stormwater quality volume. However, AMAFCA's regional facilities may offer other MS4s an option for alternative compliance to manage the post construction stormwater quality volume.	• AMAFCA will continue its primary function is to provide regional stormwater flood control and water quality BMPs. Flood control requirements will continue to be required. • AMAFCA will abide by the NM OSE rule and plan/design its facilities to drain within 96 hours per the ISC/OSE guidance document. Using AMAFCA facilities for off-site mitigation would assure the community that New Mexico water law limits are being met at the AMAFCA facilities. • AMAFCA's regional facilities may offer other MS4s an option for alternative compliance to manage the post construction stormwater quality volume.	No Permit required schedule.

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Not Included in NOI	75	As required in Part I.D.5.b.(v).(f), when a Permittee determines a project applicant has demonstrated infeasibility due to site constraints specified in Part I.D.5.b.(v) to manage the design standard volume specified in Part I.D.5.b.(ii).(b) or a portion of the design standard volume on-site, the Permittee shall require one of the following mitigation options: A. The off-site mitigation option only applies to redevelopment sites and cannot be applied to new development. Management of the standard volume, or a portion of the volume, may be implemented at another location within the MS4 area, approved by the permittee. The permittee shall identify priority areas within the MS4 in which mitigation projects can be completed and shall determine who will be responsible for long-term maintenance on off-site mitigation projects. B. Implementation of a project that has been determined to provide an opportunity to replenish regional ground water supplies at an offsite location. C. Payment in lieu may be made to the permittee, who will apply the funds to a public storm water project. MS4s shall maintain a publicly accessible database of approved projects for which these payments may be used.	Part I.D.5.b.(v).(f) - AMAFCA may continue to coordinate with watershed MS4s and other entities within its jurisdiction to discuss areas requiring drainage and water quality improvements, project priorities, and multi-agency funding opportunities. Off-site stormwater quality mitigation projects will be included in these discussions. As part of the development of the AMAFCA Project Schedule, a system review will be completed. AMAFCA will publish projects, including schedule and cost sharing, in the AMAFCA Project Schedule. AMAFCA, as part of the MS4 TAG, has discussed with EPA Region 6 (verbally and in writing) the MS4 Permit language for this section. The MS4 TAG members and EPA discussed how some of the terms/language of the Permit may limit the flexibility of the MS4s to allow off-site stormwater mitigation. The MS4s identified terms in the Permit which restrict the flexibility to achieve stormwater quality objectives by using alternate methods of compliance with post-construction permit requirements. The MS4 TAG provided this in writing to EPA on August 19, 2017 (letter from Dave Gatterman, SSCAFCA, "August 8, 2016 Meeting Follow-up"). This letter included scanned page 30 of Permit No. NMR04A000 to illustrate language changes the MS4 TAG think would allow the permittees to move forward and comply with both the Permit and state statute. Removing these limitations relative to post construction runoff will better allow the permittees flexibility to comply with New Mexico water law, protect the quality of the river, and not overly constrict development of our arid watershed. AMAFCA will continue discussions with EPA Region 6 regarding Permit language related to off-site stormwater mitigation.	• AMAFCA may coordinate with watershed MS4s as well as other entities during project review, complete a system review, and publish projects, including schedule and cost sharing, in the AMAFCA Project Schedule. Off-site stormwater quality mitigation projects may be included in these discussions. • AMAFCA will continue discussions with EPA Region 6 regarding Permit language related to off-site stormwater mitigation. Removing these Permit limitations relative to post construction runoff will better allow the permittees flexibility to comply with New Mexico water law, protect the quality of the river, and not overly constrict development of our arid watershed.	No Permit required schedule.
2.9	76	Estimation of the number of acres of IA and DCIA as required in Part I.D.5.b.(vi).	Part I.D.5.b.(vi) - AMAFCA will estimate the Impervious Area (IA) and Directly Connected Impervious Area (DCIA) within AMAFCA's jurisdiction and/or rights of way.	• AMAFCA will estimate the IA and DCIA within AMAFCA's jurisdiction and/or rights of way. AMAFCA will update this estimate, as appropriate, given development in the watersheds. This will be a cooperative effort with other watershed MS4s.	30 months (cooperative) from effective date of MS4 Permit June 22, 2017

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2.10	77	Inventory and priority ranking as required in Part I.D.5.b.(vii) for MS4 owned property and infrastructure (including public right-of-way) that may have the potential to be retrofitted with control measures designed to control the frequency, volume, and peak intensity of stormwater discharges to and from its MS4. The NM Office of the State Engineer (OSE) regulates the water delivery to the Rio Grande in order to meet water delivery requirements to Texas; therefore, AMAFCA's objective is to design its facilities to drain within 96 hours per the OSE requirements.	Part I.D.5.b.(vii) - AMAFCA will continue to keep an inventory and develop a priority ranking of AMAFCA owned properties and facilities that may have the potential for retrofitted control measures and stormwater quality facilities and BMPs. AMAFCA may continue to coordinate with watershed MS4s and other entities within its jurisdiction to discuss areas requiring drainage and water quality retrofits, project priorities, and multi-agency funding. AMAFCA will publish projects, including schedule and cost sharing, in the AMAFCA Project Schedule. As part of the development of the AMAFCA Project Schedule, a system review will be completed. Internally, using the Project Schedule, water quality projects and water quality retrofit projects may be ranked and tabulated. AMAFCA may evaluate the existing BMPs based on their effectiveness and capacity in order to identify where additional BMPs are required. AMAFCA is also a member of the cooperative MS4 TAG, facilitating cooperation and coordination with other watershed MS4s. AMAFCA will complete, as allowed, updated hydrologic analyses for the Rio Grande watersheds to assist with determining priority ranking.	• AMAFCA may continue to coordinate with watershed MS4s and other entities within its jurisdiction to discuss the areas requiring drainage and water quality retrofitting within the Middle Rio Grande Watershed, project priorities, and multi-agency funding contributions. • AMAFCA will publish the AMAFCA-funded projects, including the schedule and proposed cost-sharing, in the AMAFCA Project Schedule. As part of the development of the AMAFCA Project Schedule, a system review will be completed. AMAFCA may utilize the Project Schedule, in part, to rank and tabulate water quality projects and water quality retrofit projects. • AMAFCA will continue membership and involvement in the cooperative MS4 TAG which will facilitate cooperation and coordination with other MS4s in the Middle Rio Grande. • AMAFCA will complete updated hydrologic analyses, utilizing the AMAFCA White Paper Methodology, for the NDC watersheds, to assist with determining priority ranking.	42 months (cooperative) from effective date of MS4 Permit June 22, 2018
2.11	78	Incorporate watershed protection elements into regular planning or policy documents as required in Part I.D.5.b.(viii). As applicable to each permittee's MS4 jurisdiction, policy and/or planning documents must include the following: Part I.D.5.b.(viii).(a) - A description of master planning and project planning procedures to control the discharge of pollutants to and from the MS4. Part I.D.5.b.(viii).(b) - Minimize the amount of impervious surfaces (roads, parking lots, roofs, etc.) within each watershed, by controlling the unnecessary creation, extension and widening of impervious parking lots, roads and associated development. Part I.D.5.b.(viii) (c) - Identify environmentally and ecologically sensitive areas that provide water quality benefits and serve critical watershed functions within the MS4 and ensure requirements to preserve, protect, create and/or restore these areas are developed and implemented during the plan and design phases of projects in these identified areas.	Part I.D.5.b.(viii).(a) - AMAFCA will continue to produce and publish the AMAFCA Project Schedule for all regional drainage and water quality projects within AMAFCA's jurisdiction that will either be led or partly funded by AMAFCA. For the projects led by AMAFCA, watershed protection elements may be incorporated, when feasible, into drainage management plans, as appropriate, in order to identify watersheds which can be retrofitted with regional water quality facilities. Part I.D.5.b.(viii).(b) - This section is not applicable to AMAFCA's projects, which are regional flood control or water quality projects. Part I.D.5.b.(viii).(c) - During planning of AMAFCA projects, environmentally and ecologically sensitive areas that provide water quality benefits are considered.	• Produce and publish the AMAFCA Project Schedule. • AMAFCA may coordinate with MS4s to provide input for project planning of infrastructure retrofitting. • For projects led by AMAFCA, watershed protection elements may be incorporated into Drainage Management Plans, as appropriate, in order to identify watersheds which potentially can be retrofitted with regional water quality facilities. • All AMAFCA projects will obtain USFWS, USACE, and/or pueblo consultation, if required.	10 months from effective date of MS4 Permit Oct. 22, 2015

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2.11	79	Continuation of incorporate watershed protection elements into regular planning or policy documents as required in Part I.D.5.b.(viii). Part I.D.5.b.(viii).(d) - Implement stormwater management practices that minimize water quality impacts to streams, including disconnecting direct discharges to surface waters from impervious surfaces such as parking lots. Part I.D.5.b.(viii).(e) - Implement stormwater management practices that protect and enhance groundwater recharge as allowed under the applicable water rights laws. Part I.D.5.b.(viii).(f) - Seek to avoid or prevent hydromodification of streams and other water bodies caused by development, including roads, highways, and bridges. Part I.D.5.b.(viii).(g) - Develop and implement policies to protect native soils, prevent topsoil stripping, and prevent compaction of soils. Part I.D.5.b.(viii).(h) - The program must be specifically tailored to address local community needs (e.g. protection to drinking water sources, reduction of water quality impacts) and must be designed to attempt to maintain pre-development runoff conditions.	Part I.D.5.b.(viii).(d) - This section is rarely applicable to AMAFCA's projects. In the arid southwest, direct discharges to surface waters are rare. Part I.D.5.b.(viii).(e) - The NM OSE regulates the water delivery to the Rio Grande in order to meet water delivery requirements to Texas; therefore, AMAFCA's objective is to design its facilities to drain within 96 hours per the OSE requirements. Part I.D.5.b.(viii).(f) - AMAFCA projects, to the extent feasible and as consistent with O&M of sediment removal, will continue to seek to avoid or prevent hydromodification of streams and other water bodies. Part I.D.5.b.(viii).(g) - AMAFCA projects and those in coordination with other MS4s, will, to the extent possible, protect native soils, prevent topsoil stripping, and prevent compaction of soils. Part I.D.5.b.(viii).(h) - AMAFCA does not have jurisdictional authority pertaining to development or redevelopment activities. However, through AMAFCA's involvement with the MRGSQT and MS4 TAG, AMAFCA will support programs tailored to address local community needs and that are designed to attempt to maintain pre-development runoff conditions.	• AMAFCA will develop written procedures that include applicable watershed protection elements in Part I.D.5.b.(viii).(f), (g) and (h) as required in the MS4 Permit and as applicable to AMAFCA. • AMAFCA will continue to contribute and participate in the MRGSQT, which supports programs tailored to address local community needs and are designed to attempt to maintain pre-development runoff conditions. • AMAFCA will complete updated hydrologic analyses, utilizing the AMAFCA White Paper Methodology, for the NDC watersheds, to assist with understanding options for maintaining pre-development runoff conditions.	10 months from effective date of MS4 Permit Oct. 22, 2015
Not Included in NOI	80	Update the SWMP document and annual report as required in Part I.D.5.b.(ix) and Part I.D.5.b.(x). The permittee must update the SWMP as necessary to include a description of the mechanism(s) utilized to comply with the permit elements listed above as well as the citations/descriptions of design standards for structural and non-structural controls to control pollutants in runoff. The following information must be included in each Annual Report: Part I.D.5.b.(x).(a) - Include a summary and analysis of all maintenance, inspections and enforcement, and the number and frequency of inspections performed annually. Part I.D.5.b.(x).(b) - A cumulative listing of the annual modifications made to the Post-Construction Stormwater Management Program, and Part I.D.5.b.(x).(c) - According to the schedule presented in Table 3, the permittee must: A. Report the no. of MS4-owned properties and infrastructure that have been retrofitted with control measures designed to control the frequency, volume, and peak intensity of stormwater discharges. B. As required in Part I.D.5.b.(vi), report the tabulated results for IA & DCIA and its estimation methodology.	Part I.D.5.b.(ix) - AMAFCA will update the SWMP as necessary to comply with the permit elements listed above as well as the citations and descriptions of design standards for structural and non-structural controls to control pollutants in stormwater runoff, including discussion of the methodology used during design for estimating impacts to water quality and selecting structural and non-structural controls. Part I.D.5.b.(x).(a) - AMAFCA tracks all crew activity related to maintenance of all water quality structures. Part I.D.5.b.(x).(b) - AMAFCA does not have any development or redevelopment projects - all AMAFCA projects are regional flood control or water quality projects. AMAFCA will continue to maintain a cumulative listing of the annual modifications made to the Post-Construction Stormwater Management Program. Part I.D.5.b.(x).(c).A - AMAFCA will continue to maintain a list of properties and infrastructure within AMAFCA rights-of-way that have been retrofitted with control measures designed to control frequency, volume and peak intensity of stormwater discharges. Part I.D.5.b.(x).(c).B - AMAFCA will estimate the Impervious Area (IA) and Directly Connected Impervious Area (DCIA) within AMAFCA's jurisdiction and/or rights of way (refer to ID 76).	• AMAFCA will update the SWMP as necessary to comply with the permit elements listed above. • AMAFCA will continue to annually inspect and track all crew activity related to maintenance of all AMAFCA owned water quality structures. • AMAFCA will continue to maintain a cumulative listing of the annual modifications made to the Post-Construction Stormwater Management Program. • AMAFCA will continue to provide a cumulative list of AMAFCA's retrofit BMPs. AMAFCA will incorporate documentation by reference into the Annual Report and plans to document progress on the AMAFCA website. • AMAFCA will estimate the IA and DCIA within AMAFCA's jurisdiction and/or rights of way. AMAFCA will update this estimate, as appropriate, given development in the watersheds. This will be a cooperative effort with other watershed MS4s (refer to ID 76).	Update as necessary for SWMP.

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2.12	81	Enhance the program to include the elements in Part I.D.5.b.(xi) and Part I.D.5.a.(xii). These include: Part I.D.5.b.(xi) - Use of stormwater educational materials; and Part I.D.5.b.(xii) - When choosing appropriate BMPs, the permittee may participate in locally-based watershed planning efforts, which attempt to involve a diverse group of stakeholders including interested citizens. and Part I.D.5.b.(xiii) - The permittee may incorporate the following elements in the Post-Construction Stormwater Management in New Development and Redevelopment program required in Part I.D.5.b.(ii)(b): (a) Provide requirements and standards to direct growth to identified areas to protect environmentally and ecologically sensitive areas such as floodplains and/or other areas with endangered species and historic properties concerns; (b) Include requirements to maintain and/or increase open space/buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation; and (c) Encourage in fill development in higher density urban areas, and areas with existing storm sewer infrastructure.	Part I.D.5.b.(xi) - As part of the MRGSQT, AMAFCA will continue to use stormwater educational materials, either developed locally or provided by EPA, NMED environmental groups, public interest groups, trade organizations, and/or other MS4 as well as utilizing the MRGSQT. Part I.D.5.b.(xii) - AMAFCA may continue to participate in the watershed-planning efforts with other MS4s in order to publish the AMAFCA Project Schedule. AMAFCA will continue membership and involvement in the cooperative MS4 TAG, which will facilitate cooperation and coordination with other MS4s in the Middle Rio Grande watershed. Part I.D.5.b.(xiii) - These program enhancements are outside the AMAFCA's authority and mission. However, AMAFCA will cooperate with other watershed MS4s, as applicable, to support this program enhancement.	• AMAFCA will continue to contribute and participate in the MRGSQT. The MRGSQT Outcomes Report will summarize the activities where educational materials were dispersed and shared with the public. This report is available upon request. • AMAFCA may coordinate with MS4s for project planning of infrastructure retrofitting. AMAFCA will continue to produce and publish the AMAFCA Project Schedule. • AMAFCA will continue membership and involvement in the cooperative MS4 Technical Advisory Group (MS4 TAG) which will facilitate cooperation and coordination with other MS4s in the Middle Rio Grande.	No Permit required schedule.
2.13	82	Item from MS4 Permit NOI. Describe other proposed activities to address the Post-Construction Stormwater Management in New Development and Redevelopment Measure.	Because AMAFCA is a flood control authority, the legal authority and jurisdiction granted to it by the State of New Mexico is limited. AMAFCA has begun requiring, and will continue to require, MS4 permit elements into construction contracts.	• AMAFCA will continue, as appropriate, to insert MS4 Permit elements into construction contracts to provide AMAFCA with a contractual mechanism for MS4 elements.	No Permit required schedule.

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	83	**TABLE 4: Pollution Prevention/Good Housekeeping for Municipal/Co-permittee Operations - Part I.D.5.c**			
3.1	84	Develop or update the Pollution Prevention/Good Housekeeping program to include the elements in Part I.D.5.c.(i). Elements include: Part I.D.5.c.(i).(a) - Employee training program to incorporate pollution prevention and good housekeeping, including a tracking procedure; Part I.D.5.c.(i).(b) - O&M activities, schedules, and long term inspections procedures for structural and non-structural stormwater controls; Part I.D.5.c.(i).(c) - Controls for reducing or eliminating the discharge of pollutants from AMAFCA maintenance and storage yards and shop; Part I.D.5.c.(i).(d) - Procedures for properly disposing of waste removed from separate storm sewers and facilities listed in Part I.D.5.c.(i).(c) (such as dredged spoil, accumulated sediments, floatables, and other debris); Part I.D.5.c.(i).(e) - Procedures to ensure that new flood management projects assess the impacts on water quality and examine existing projects for incorporating additional water quality protection devices or practices .	Part I.D.5.c.(i) - AMAFCA will continue its Pollution Prevention/Good Housekeeping Program. Part I.D.5.c.(i).(a) - AMAFCA will continue employee training as it becomes available to incorporate pollution prevention and good housekeeping; Part I.D.5.c.(i).(b) - AMAFCA will adhere to its current O&M and Safety procedures, which include employee training for maintenance of AMAFCA regional stormwater flood control and water quality BMPs. Part I.D.5.c.(i).(c) - AMAFCA will implement and maintain controls for reducing the discharge of pollutants from AMAFCA maintenance and storage yards and shop; Part I.D.5.c.(i).(d) - AMAFCA will develop procedures, where appropriate, for properly disposing of waste removed from AMAFCA facilities (sediment, floatables, and other debris); Part I.D.5.c.(i).(e) - AMAFCA ensures that new projects will assess the impacts on water quality and existing projects will be examined for retrofit opportunities as part of AMAFCA's Post Construction Control Measures.	• AMAFCA will document training provided to its employees & include pollution prevention and good housekeeping into training, as needed. • AMAFCA encourages that crew members are trained in spill prevention & control, as well as truck fueling activities during the Permit term. • AMAFCA will adhere to its current O&M and Safety Procedures. • In the Annual Report, AMAFCA will consider projected costs for the operation and maintenance of its stormwater quality facilities. • AMAFCA will review new projects to assess the impacts on water quality and will examine existing projects for retrofit opportunities as part of AMAFCA's Post Construction Control Measure.	10 months from effective date of MS4 Permit Oct. 22, 2015
3.2	85	The program will include the elements in Part I.D.5.c.(ii). These include: Part I.D.5.c.(ii).(a) - Develop or update the existing list of all stormwater quality facilities by drainage basin, including location and description;	Part I.D.5.c.(ii).(a) - As part of the Program, AMAFCA will continue to up-date a map of all stormwater quality facilities by drainage basin, including location and description.	• AMAFCA will continue to up-date a map of all AMAFCA stormwater quality facilities by drainage basin, including location and description.	30 months (cooperative) from effective date of MS4 Permit June 22, 2017
3.2	86	Part I.D.5.c.(ii).(b) - Develop or modify existing operational manual for de-icing activities addressing alternate materials and methods to control impacts to stormwater quality;	Part I.D.5.c.(ii).(b) - N/A - AMAFCA only has jurisdiction to maintain its facilities; AMAFCA does not engage in the following: de-icing, roadway debris control, street sweeping, or roadway pollutant removal.	N/A	N/A
3.2 & 3.4	87	Part I.D.5.c.(ii).(c) - Develop or modify existing program to control pollution in stormwater runoff from equipment and vehicle maintenance yards and maintenance center operations located within the MS4;	Part I.D.5.c.(ii).(c) - For compliance with this section of the MS4 Permit, AMAFCA's focus is to evaluate and modify, where necessary, the existing program to control pollution in stormwater runoff from AMAFCA's equipment and vehicle maintenance yard and satellite facilities.	• AMAFCA will continue to implement and maintain administrative and structural BMPs.	10 months from effective date of MS4 Permit Oct. 22, 2015
3.2	88	Part I.D.5.c.(ii).(d) - Develop or modify existing street sweeping program. Assess possible benefits from changing frequency or timing of sweeping activities or utilizing different equipment for sweeping activities;	Part I.D.5.c.(ii).(d) - N/A - AMAFCA only has jurisdiction to maintain its facilities; AMAFCA does not engage in the following: de-icing, roadway debris control, street sweeping, or roadway pollutant removal.	N/A	N/A
3.2	89	Part I.D.5.c.(ii).(e) - A description of procedures used by permittees to target roadway areas most likely to contribute pollutants to and from the MS4 (i.e., runoff discharges directly to sensitive receiving water, roadway receives majority of de-icing material, roadway receives excess litter, roadway receives greater loads of oil and grease);	Part I.D.5.c.(ii).(e) - AMAFCA only has jurisdiction to maintain its facilities; AMAFCA does not engage in the following: de-icing, roadway debris control, street sweeping, or roadway pollutant removal. AMAFCA will continue coordination, as applicable, with other MS4s in the watershed related to illicit discharge detection and elimination from roadways - refer to the Illicit Discharges and Improper Disposal Control Measure.	N/A	N/A

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3.2	90	Part I.D.5.c.(ii).(f) - Develop or revise existing standard operating procedures for collection of used motor vehicle fluids (at a minimum oil and antifreeze) and toxics (including paint, solvents, fertilizers, pesticides, herbicides, and other hazardous materials) used in permittee operations or discarded in the MS4, for recycle, reuse, or proper disposal.	Part I.D.5.c.(ii).(f) - For compliance with this section of the MS4 Permit, AMAFCA's focus is to evaluate and modify, where necessary, the existing program to control pollution in stormwater runoff from the equipment and vehicle maintenance yard.	• AMAFCA will maintain the existing program to control polluted stormwater runoff from its equipment and maintenance yard. • AMAFCA will continue to implement and maintain BMPs.	10 months from effective date of MS4 Permit Oct. 22, 2015
3.2	91	Part I.D.5.c.(ii).(g) - Standard operating procedure for disposal of accumulated sediments, floatables, and debris;	Part I.D.5.c.(ii).(g) - AMAFCA performs waste disposal for sediment, floatables, and other debris in accordance with the "AMAFCA Operations and Maintenance Manual for Dams" and "AMAFCA Operation and Maintenance Repair Replacement and Rehabilitation Manual" (OMRRR). As a cooperative program, AMAFCA is a participant in an OMRRR with Bernalillo County, the MRGCD, and the Bureau of Reclamation related to facilities that are connected to MRGCD ditches (primarily in the SW Valley of Albuquerque).	• Continue to perform all waste disposal for sediment, floatables, and other debris in accordance with the operation and maintenance manuals and direct vendor contractors to collect and dispose of trash, floatables, and debris. • AMAFCA will develop standard operating procedures, as applicable, for these disposal activities. • AMAFCA will continue to participate, as appropriate, in the Operation Maintenance Repair, Replacement, and Rehabilitation (OMRRR) - Southwest Valley Flood Reduction Project cooperative program with MRGCD, Bernalillo County, and Bureau of Reclamation.	30 months (cooperative) from effective date of MS4 Permit June 22, 2017
3.2	92	Part I.D.5.c.(ii).(h) - litter source control program, include targeted public awareness campaign;	Part I.D.5.c.(ii).(h) - As a dues paying member of the MRGSQT, AMAFCA will continue to collaborate with the MS4 permittees to improve upon the existing litter source control program, including a targeted public awareness campaign.	• AMAFCA will continue its involvement with and financial support of the MRGSQT. • AMAFCA will continue to collaborate with the MS4 permittees to improve upon the existing litter source control program. • The MRGSQT Outcomes Report is available upon request.	30 months (cooperative) from effective date of MS4 Permit June 22, 2017
3.2	93	Part I.D.5.c.(ii).(i) - Develop or review and revise, as necessary, the criteria, procedures and schedule to evaluate existing flood control devices, structures and drainage ways to assess the potential of retrofitting to provide additional pollutant removal from stormwater. Implement routine review to ensure new and/or innovative practices are implemented where applicable.	Part I.D.5.c.(ii).(i) - AMAFCA may continue to coordinate with watershed MS4s and other entities within its jurisdiction to discuss areas requiring drainage and water quality retrofits, project priorities, and multi-agency funding. AMAFCA will publish projects, including schedule and cost sharing, in the-AMAFCA Project Schedule. Operation and Maintenance procedures, inspections, repairs, and retrofits are evaluated through the annual cooperative Agency and Area Wide and Miscellaneous contracts.	• AMAFCA may continue to coordinate with watershed MS4s and other entities within its jurisdiction to discuss the areas requiring drainage and water quality retrofitting within the Middle Rio Grande Watershed, project priorities, and multi-agency funding contributions. AMAFCA will continue to produce and publish the AMAFCA Project Schedule, which includes projects for retrofitting existing flood control devices, structures and drainage ways to provide additional pollutant removal from stormwater. • AMAFCA will continue to participate in the cooperative Agency and Area Wide contract and utilize the Miscellaneous contract to address rehabilitation, repair, and retrofit activities for AMAFCA structures.	30 months (cooperative) from effective date of MS4 Permit June 22, 2017

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3.2	94	Part I.D.5.c.(ii).(j) -Enhance inspection and maintenance programs by coordinating with maintenance personnel to ensure that a target number of structures per basin are inspected and maintained per quarter;	Part I.D.5.c.(ii).(j) - AMAFCA has in place a well-defined and implemented routine inspection and O&M program that includes both formal and informal inspections and maintenance schedules. This program will be enhanced to ensure a target number of structures per basin are inspected and maintained per quarter, as required by the MS4 Permit, for annual compliance with the MS4 Permit. AMAFCA will enhance its inspection and maintenance programs, as required by the MS4 Permit, through improved coordination. AMAFCA will, depending on funding available, utilize the Agency and Area Wide and Miscellaneous contracts to address portions of the required inspection and maintenance.	• AMAFCA will continue coordination between maintenance personnel and staff to ensure that, on average, two (2) structures per basin are inspected and maintained per quarter. • AMAFCA will, depending on funding available, utilize the Agency and Area Wide and Miscellaneous contracts to address portions of the required inspection and maintenance.	30 months (cooperative) from effective date of MS4 Permit June 22, 2017
3.2	95	Part I.D.5.c.(ii).(k) - Enhance the existing program to control the discharge of floatables and trash from the MS4 by implementing source control of floatables in industrial and commercial areas;	Part I.D.5.c.(ii).(k) - AMAFCA does not have jurisdiction over industrial and commercial areas in the MS4. AMAFCA will continue coordination with the MRG MS4s, as well as involvement with the MRGSQT and the MS4 TAG, to enhance the program to control the discharge of floatables and trash from the MS4 by implementing source control of floatables in industrial and commercial areas.	• AMAFCA will continue its involvement with and financial support of the MRGSQT. • AMAFCA will continue to collaborate with the MS4 permittees to improve upon the source control of floatables in industrial and commercial areas. • AMAFCA will continue membership and involvement in the cooperative MS4 TAG.	30 months (cooperative) from effective date of MS4 Permit June 22, 2017
3.2	96	Part I.D.5.c.(ii).(l) - Include in each Annual Report, a cumulative summary of retrofit evaluations conducted during the permit term on existing flood control devices, structures and drainage ways to benefit water quality. Update the SWMP to include a schedule (with priorities) for identified retrofit projects;	Part I.D.5.c.(ii).(l) - AMAFCA may continue to coordinate with watershed MS4s and other entities within its jurisdiction to discuss areas requiring drainage and water quality retrofits, project priorities, and multi-agency funding. As part of the development of the AMAFCA Project Schedule, a system review will be completed. AMAFCA will publish projects, including schedule and cost sharing, in the AMAFCA Project Schedule. Using the Project Schedule process, water quality projects and water quality retrofit projects may be ranked and prioritized.	• AMAFCA will continue to provide a cumulative list of AMAFCA's retrofit BMPs. AMAFCA will incorporate documentation by reference into the Annual Report - refer to the Post-Construction Control Measure. • AMAFCA will continue including facility evaluations as part of AMAFCA studies, including drainage management plans, facility plans, and other analysis projects, as appropriate. • AMAFCA will continue to include BMP/water quality facility retrofit projects in the Project Schedule.	30 months (cooperative) from effective date of MS4 Permit Oct. 22, 2015 or June 22, 2017

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3.2	97	Part I.D.5.c.(ii).(m) - Flood management projects: review and revise, as necessary, technical criteria guidance documents and program for the assessment of water quality impacts and incorporation of water quality controls into future flood control projects. The criteria guidance document must include the following elements: Part I.D.5.c.(ii).(m).A. - Describe how new flood control projects are assessed for water quality impacts. Part I.D.5.c.(ii).(m).B. - Provide citations and descriptions of design standards that ensure water quality controls are incorporated in future flood control projects. Part I.D.5.c.(ii).(m).C. - Include method for permittees to update standards with new and/or innovative practices. Part I.D.5.c.(ii).(m).D. - Describe master planning and project planning procedures and design review procedures.	Part I.D.5.c.(ii).(m).A. - AMAFCA, through its processes, will assess new flood control projects for water quality impacts. As new flood control projects are constructed, AMAFCA will consider the appropriate time and location for the collection of water quality data to assess project water quality impacts. During facility planning, AMAFCA will adhere to current and future drainage and water quality management plans passed by the AMAFCA Board of Directors, Bernalillo County Commission, or Albuquerque City Council. AMAFCA will continue its proactive policy of incorporating stormwater quality BMPs into new flood control projects when feasible. AMAFCA will publish projects, including schedule and cost sharing, in the AMAFCA Project Schedule. Using the Project Schedule process, water quality projects and water quality retrofit projects may be ranked and prioritized. Part I.D.5.c.(ii).(m).B. - AMAFCA is assessing the use of National design standards related to water quality controls. Part I.D.5.c.(ii).(m).C. - AMAFCA will continually assess design standards and practices, technical specifications, and BMPs and implement them, as applicable. Part I.D.5.c.(ii).(m).D. - AMAFCA has established procedures for master planning through its Drainage Master Plan development, project planning procedures using its Project Schedule, and design review procedures.	• AMAFCA has all of the elements of the Technical Criteria Guidance Document as part of their various programs but not as part of one document. Many of these elements are done in cooperation with watershed MS4s. • AMAFCA's Project Schedule process includes, in part, coordination with watershed MS4s, TAG members, and other entities within its jurisdiction and may include the ranking of flood control and stormwater quality projects. • AMAFCA is assessing the use of National design standards related to water quality controls. • AMAFCA will continually assess design standards and practices and implementing them, as applicable. • AMAFCA will continue to follow its established procedures for Drainage Master Plan development, project planning procedures using its Project Schedule, and design review procedures.	30 months (cooperative) from effective date of MS4 Permit June 22, 2017
3.2	98	Part I.D.5.c.(ii).(n) -Develop procedures to control the discharge of pollutants related to the storage and application of pesticides, herbicides, and fertilizers applied, by the permittee's employees or contractors, to public right-of-ways, parks, and other municipal property. The permittee must provide an updated description of the data monitoring system for all permittee departments utilizing pesticides, herbicides and fertilizers.	Part I.D.5.c.(ii).(n) - AMAFCA will only allow licensed staff or professionally licensed contractors to apply herbicides and pesticides within AMAFCA rights-of-way (AMAFCA does not apply fertilizers in its operations). In addition, AMAFCA will review, as necessary, leases and licenses, to ensure wording is included addressing the control of discharge of pollutants related to the storage and application of pesticides, herbicides, and fertilizers applied by entities leasing or licensed to use AMAFCA lands. AMAFCA will document monitor herbicides and pesticides used within AMAFCA rights-of-way (AMAFCA does not apply fertilizers in its operations). AMAFCA will store all herbicides and pesticides according to direction by product vendors.	• AMAFCA personnel will typically not apply fertilizers in its operations. • AMAFCA will only allow professional licensed contractors or licensed crew members to apply herbicides and pesticides within AMAFCA rights-of-way. • AMAFCA will be reviewing, as necessary, leases and licenses, to ensure wording is included addressing the control of discharge of pollutants related to the storage and application of herbicides, pesticides, and fertilizers applied by entities leasing or licensed to use AMAFCA lands. • AMAFCA will continue documenting herbicide and pesticide applications within AMAFCA ROW. • AMAFCA will store all herbicides and pesticides according to direction by product vendors.	10 months from effective date of MS4 Permit Oct. 22, 2015
3.3	99	Develop or update a list and a map of industrial facilities owned or operated by the permittee as required in Part I.D.5.c.(iii).	Part I.D.5.c.(iii) - N/A - No EPA Multi Sector General Permit (MSGP) facilities within AMAFCA rights-of-way. This has been discussed and confirmed with NMED. This was submitted to EPA in AMAFCA's NOI and accepted.	N/A	N/A
Not Included in NOI	100	Update the SWMP document and annual report as required in I.D.5.c.(iv) and Part I.D.5.c.(v). Part I.D.5.c.(iv) - The permittee must include in the SWMP a description of the mechanism(s) utilized to comply with each of the elements required in Part I.D.5.c.(i) throughout Part I.D.5.c.(iii) and its corresponding measurable goal. and Part I.D.5.c.(v) - The permittee shall assess the overall success of the program, and document the program effectiveness in the Annual Report.	Part I.D.5.c.(iv) - AMAFCA's Stormwater Quality Engineer will review the program requirements for the above-mentioned SWMP elements during the Annual Report process. The measurable goals in this section of the SWMP are the mechanisms used to comply with the Permit elements. A strategy to implement any new program requirements will be developed as needed. Part I.D.5.c.(v) - The Annual Report will serve as the progress report for this program, if applicable. AMAFCA will incorporate documentation by reference into the Annual Report.	• As part of the Annual Report process, the Stormwater Quality Engineer will review the program requirements listed in Part I.D.5.c, for the above-mentioned SWMP elements and develop a strategy to implement any new program requirements. • The Annual Report will serve as the progress report for this program, if applicable. AMAFCA will incorporate documentation by reference into the Annual Report.	Update as necessary for SWMP and progress reports submitted with subsequent annual reports, as applicable.

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	101	**TABLE 5: Industrial and High Risk Runoff - Part I.D.5.d**			
4	102	As described in Part I.D.5.d, the permittees shall: (i) control through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by stormwater discharges associated with industrial activity and the quality of stormwater discharged from sites of industrial activity as defined in 40 CFR 122.26(b)(14)(i)-(ix) and (xi). If no such industrial activities are in a permittees jurisdiction, that permittee may certify that this program element does not apply.	Part I.D.5.d - Activity removed from AMAFCA's SWMP (Rev. 0, December 1, 2015). AMAFCA certifies with submittal of this SWMP that no such industrial activities are in AMAFCA's jurisdiction and this program element does not apply. This was submitted to EPA in AMAFCA's NOI and accepted.	N/A	N/A

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	103	**TABLE 6: Illicit Discharges and Improper Disposal - Part I.D.5.e**			
See NOI Sections Below	104	As described in Part I.D.5.e.(i), the permittee shall develop, revise, implement, and enforce a program to detect and eliminate illicit discharges (as defined at 40 CFR 122.26(b)(2)) entering the MS4. Permittees previously covered under NMS000101 or NMR040000 must continue existing programs while updating those programs, as necessary, to comply with the requirements of this permit. The permittee must (see required items listed below):	Part I.D.5.e.(i) - AMAFCA has developed a program to detect and eliminate illicit discharges. The program elements, as they relate to the permit requirements, are described in detail below.	• The AMAFCA Stormwater Quality Engineer will continue to review, revise, and implement the Illicit Discharge Detection and Elimination Program requirements, as needed.	See specific Permit activity schedules below.
5.1	105	Mapping as required in Part I.D.5.e.(i).(a). Develop, if not already completed, a storm sewer system map, showing the names and locations of all outfalls as well as the names and locations of all waters of the United States that receive discharge from those outfalls. Identify all discharges points into major drainage channels draining more than twenty (20) percent of the MS4 area;	Part I.D.5.e.(i).(a) - AMAFCA will continue to update its Maintenance Responsibilities for Drainage Facilities in the Albuquerque Metropolitan Area (Map). This is a color coded, detailed maintenance map showing all AMAFCA facilities (water quality BMPs, channels, large diameter storm drains, ponds, berms or dikes, dams, and receiving waters) and AMAFCA outfalls. AMAFCA cooperates with COA, NMDOT, Bernalillo County, SSCAFCA, Village of Los Ranchos, and MRGCD to collect their data for AMAFCA's map. This map is available on the AMAFCA website: http://www.amafca.org/maps-2/	• AMAFCA will continue to keep this maintenance map up-to-date for AMAFCA facilities and other MS4 permittee facilities, as information is provided. Cooperation with other MS4s will continue related to this map. • AMAFCA will continue to update the map and publish this map on-line.	14 months (cooperative) from effective date of MS4 Permit February 22, 2016
5.2	106	Ordinance (or other control method) as required in Part I.D.5 .e.(i)(b).	Because AMAFCA is a flood control authority, the legal authority and jurisdiction granted to it by the State of New Mexico is limited. Part I.D.5 .e.(i)(b) - AMAFCA will contractually and/or administratively require the control of non-stormwater discharges from third-party operations within AMAFCA's jurisdiction and/or rights of way to the extent allowable under State, Tribal, or local law.	• AMAFCA will contractually and/or administratively requiring the control of non-stormwater discharges on turn-key projects that AMAFCA will take over for operation and maintenance after construction to the extent allowable under State, Tribal, or local law.	10 months from effective date of MS4 Permit June 22, 2017
5.3	107	Develop and implement a IDDE plan as required in Part I.D.5.e.(i).(c). The permittee must include the following elements in the plan: A. Procedures for locating priority areas likely to have illicit discharges including field tests for selected pollutant indicators (ammonia, boron, chlorine, color, conductivity, detergents, E. coli, enterococci, total coliform, fluoride, hardness, pH, potassium, conductivity, surfactants), and visually screening outfalls during dry weather; B. Procedures for enforcement, including enforcement escalation procedures for recalcitrant or repeat offenders; C. Procedures for removing the source of the discharge; D. Procedures for program evaluation and assessment; and E. Procedures for coordination with adjacent municipalities and/or state, tribal, or federal regulatory agencies to address situations where investigations indicate the illicit discharge originates outside the MS4 jurisdiction.	Part I.D.5.e.(i).(c) - AMAFCA will continue to assess its IDDE program, as appropriate.	• AMAFCA will continue to implement the updated IDDE program elements. • AMAFCA will continue membership and involvement in the cooperative MS4 Technical Advisory Group (MS4 TAG) which will facilitate cooperation and coordination with other MS4s in the Middle Rio Grande related to the IDDE program.	30 months (cooperative) from effective date of MS4 Permit June 22, 2017

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5.4	108	Develop an education program as required in Part I.D.5.e.(i).(d). Develop an education program to promote, publicize, and facilitate public reporting of illicit connections or discharges, and distribution of outreach materials. The permittee shall inform public employees, businesses and the general public of hazards associated with illegal discharges and improper disposal of waste.	Part I.D.5.e.(i).(d) - AMAFCA will continue to participate in the MRGSQT and collaborate with the MS4 permittees to provide educational information regarding stormwater quality to the community. This information will promote, publicize, and facilitate public reporting of illicit connections or discharges, and distribution of outreach materials. This program informs the public of hazards associated with illicit discharges and improper waste disposal, as well as proper ways to dispose of hazardous wastes.	• AMAFCA will continue work with the MRGSQT to inform the general public of the hazards associated with illegal discharges and improper disposal of waste. • AMAFCA will continue its involvement with and financial support of BEMP and through the MRGSQT. • The MRGSQT Outcomes Report is available upon request. • AMAFCA will continue an in-house training program for its administrative, engineering, and field employees regarding illegal discharges and improper disposal of waste.	18 months (cooperative) from effective date of MS4 Permit June 22, 2016
5.5	109	Establish a hotline as required in Part I.D.5.e.(i).(e).	Part I.D.5.e.(i).(e) - MS4s that are members of the MRGSQT benefit from the Albuquerque 311 Citizen Contact Center. The 311 service is a single telephone number for all non-emergency inquiries and services. This program includes citizen calls regarding illicit discharges.	• MS4s in the watershed will continue to participate in the 311 call in program.	18 months (cooperative) from effective date of MS4 Permit June 22, 2016
5.6	110	Investigate suspected significant/severe illicit discharges as required in Part I.D.5.e.(i).(f). Investigate suspected significant/severe illicit discharges within forty-eight (48) hours of detection and all other discharges as soon as practicable; elimination of such discharges as expeditiously as possible; and, requirement of immediate cessation of illicit discharges upon confirmation of responsible parties. Illicit Discharge is defined in 40 CFR 122.26(b)(2)as "Illicit discharge means any discharge to a municipal separate storm sewer that is not composed entirely of stormwater except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities."	Part I.D.5.e.(i).(f) - AMAFCA will continue its policy of investigation of suspected significant/severe illicit discharges within forty-eight (48) hours of detection/reporting and all other discharges as soon as practicable. AMAFCA plans to continue removing/treating such discharges as expeditiously as possible and requiring immediate cessation of illicit discharges upon confirmation of responsible parties. AMAFCA will continue its procedures for illicit discharge investigation and use of its IDDE Incident Report Form. "Illicit discharge" also covers illegal or improper disposal or dumping of wastes into AMAFCA facilities. For AMAFCA, "illicit discharges" typically fall into two categories: (1) liquid discharge, or (2) solid discharge (dumped trash, debris, dirt/sediment, tires). Liquid discharges are considered urgent in order to quickly determine if they are significant/severe illicit discharges and are investigated within forty-eight (48) hours of detection. Solid discharge are investigated and identified for clean-up during the staff meetings.	• AMAFCA will continue its policy of investigation of suspected significant/severe illicit discharges within 48 hours of detection and all other discharges as soon as practicable. • MS4s in the watershed will continue to participate in the 311 call in program. • AMAFCA will continue membership and involvement in the cooperative MS4 Technical Advisory Group (MS4 TAG) which will facilitate cooperation and coordination with other MS4s in the Middle Rio Grande related to investigation of illicit discharges.	18 months (cooperative) from effective date of MS4 Permit June 22, 2016
5.7	111	Review complaint records and develop a targeted source reduction program as required in Part I.D.5.e.(i).(g). Review complaint records for the last permit term and develop a targeted source reduction program for those illicit discharge /improper disposal incidents that have occurred more than twice in two (2) or more years from different locations.	Part I.D.5.e.(i).(g) - AMAFCA will continue its policy of reviewing complaint records. In addition, complaint records that are determined to be illicit discharges will be added to the AMAFCA GIS database. The location, date, type of illicit discharge, and source (if known) will be documented. This database was developed in 2014 and is updated annually. To meet the Permit requirements in Table 1.a (Part I.C.2), regarding discharges to impaired waters with a TMDL (E. coli), AMAFCA's review of complaint records will include a focus on illicit discharges contributing bacteria to the MS4. AMAFCA will develop a targeted source reduction program for those illicit discharge/improper disposal incidents that have occurred more than twice in 2 or more years from different locations. AMAFCA coordinates with COA and the Albuquerque Bernalillo Water Utility Authority (ABCWUA) for notification of illicit discharges.	• AMAFCA will continue its policy of reviewing complaint records. This will include a focus on illicit discharges contributing bacteria to the MS4. • Annually, AMAFCA will reevaluate its targeted source reduction program. Potential future targets will be determined and cooperative efforts for targeted source reduction programs with MRGSQT members will be considered. • AMAFCA will continue adding illicit discharge complaint records for the Permit term to the AMAFCA GIS database to help identify sources and trends. • AMAFCA will continue coordination with other agencies for this program element.	1 year (cooperative) from effective date of MS4 Permit Dec. 22, 2015

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Not Included in NOI	112	As required in Part I.D.5.e.(ii), the permittee shall address the following categories of non-stormwater discharges or flows (e.g., illicit discharges) only if they are identified as significant contributors of pollutants to the MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(90)), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water. Note: Discharges or flows from fire fighting activities are excluded from the effective prohibitions against non-stormwater and need only be addressed where they are identified a significant sources of pollutants to water of the United States).	Part I.D.5.e.(ii) - Any such discharge that is identified as a significant contributor of pollutants to the AMAFCA MS4, or is causing or contributing to a water quality standards violation, will be addressed as an illicit discharge pursuant to Part I.D.5.e of the MS4 Permit. The Permit lists authorized non-stormwater discharges in Part I.D.5.e.(ii). Many of these authorized non-stormwater discharges are not applicable to AMAFCA and none of these discharges are expected to be significant contributors of pollutants to the MS4. The AMAFCA Stormwater Quality Engineer will continue coordination & communication with ABCWUA regarding well flushing and rehabilitation schedules to ensure that AMAFCA is aware of authorized non-stormwater discharges into its facilities.	• The AMAFCA Stormwater Quality Engineer will review this list annually to check that the categories of authorized non-stormwater discharges are still not considered significant contributors of pollutants to the MS4. • The AMAFCA Stormwater Quality Engineer will communicate with ABCWUA regarding well flushing and rehabilitation schedules to ensure that AMAFCA is aware of authorized non-stormwater discharges into its facilities.	No permit required schedule, AMAFCA will review annually.
5.8	113	As required in Part I.D.5.e.(iii), the permittee must screen the entire jurisdiction at least once every five (5) years and high priority areas at least once every year. High priority areas include any area where there is ongoing evidence of illicit discharges or dumping, or where there are citizen complaints on more than five (5) separate events within twelve (12) months. The permittee must: (a) Include in its SWMP document a description of the means, methods, quality assurance and controls protocols, and schedule for successfully implementing the required screening, field monitoring, laboratory analysis, investigations, and analysis evaluation of data collected. (b) Comply with the dry weather screening program established in Table 6 and the monitoring requirements specified in Part III.A.2. (c) If applicable, implement the priority ranking system developed in previous permit term.	AMAFCA will continue to make progress with its IDDE activities and program. Much of this effort may be in coordination with MS4 permittees COA, Bernalillo County, and NMDOT, as the AMAFCA facilities are stormwater collectors for the basins that are primarily controlled by other MS4 programs, rules, and regulations. Part I.D.5.e.(ii).(a) - IDDE screening methods and protocols for implementing the required screening, field monitoring, laboratory analysis, investigations, and analysis evaluation of data collected has been developed. AMAFCA has in place a well-defined and implemented routine inspection and O&M program that includes both formal and informal inspections. These O&M inspections are part of the IDDE screening program. Part I.D.5.e.(ii).(b) - AMAFCA screening procedures and protocols will comply with the dry weather screening program monitoring requirements specified in Part III.A.2 of the MS4 Permit. COA and AMAFCA have a cooperative dry weather screening program. Part I.D.5.e.(ii).(c) - For AMAFCA, facility screening is part of AMAFCA's routine O&M activities. All areas are screened and there are no low priority areas.	• AMAFCA has developed screening procedures, protocols, and plan. • AMAFCA will continue routine inspections through its O&M program, including both formal and informal inspections. These O&M inspections are part of the IDDE screening program. • As a cooperative program, COA will continue to perform dry weather screening. • AMAFCA will continue membership and involvement in the cooperative MRGSQT and TAG, which will facilitate cooperation and coordination with other MS4s in the Middle Rio Grande related to screening for illicit discharges.	Cooperative program - High Priority - screen 1x per year. -Years 1 -3: develop procedures as required in Part I.D.5.e.(i).(c). -Year 4: screen 30% of the MS4 area. -Year 5: screen 70% of the MS4 area.
5.9	114	Develop, update, and implement a Waste Collection Program as required in Part I.D.5.e.(iv).	Part I.D.5.e.(iv) - Activity removed from AMAFCA's SWMP. Public waste collection is the responsibility of the municipalities. AMAFCA does not have the jurisdictional authority to perform these activities. AMAFCA will continue to regularly collect waste within its rights-of-way. This was submitted to EPA in AMAFCA's NOI and accepted.	N/A	N/A
5.10	115	Develop, update and implement a Spill Prevention and Response program to prevent, contain, and respond to spills that may discharge into the MS4 as required in Part I.D.5.e.(v). The Spill Prevention and Response program shall include: (a) Where discharge of material resulting from a spill is necessary to prevent loss of life, personal injury, or severe property damage, the permittee(s) shall take, or ensure the party responsible for the spill takes, all reasonable steps to control or prevent any adverse effects to human health or the environment: and (b) The spill response program may include a combination of spill response actions by the permittee (and/or another public or private entity), and legal requirements for private entities within the permittee's municipal jurisdiction.	Part I.D.5.e.(v) - AMAFCA will continue its Spill Prevention and Response program. This program element relates to Illicit Discharge, reporting requirements, crew training, spill response materials on hand (in maintenance vehicles), and good housekeeping. For AMAFCA facilities, AMAFCA encourages that crew members are trained in spill prevention and control (refer to Pollution Prevention/Good Housekeeping Control Measure).	• AMAFCA will continue development of its cooperative Spill Response Program with agency partners. • AMAFCA encourages that crew members are trained in spill prevention and control (refer to Pollution Prevention/Good Housekeeping Control Measure). • AMAFCA will continue membership and involvement in the cooperative MS4 TAG and the MRGSQT, which will facilitate cooperation and coordination with other MS4s in the Middle Rio Grande related to spill prevention and response.	18 months (cooperative) from effective date of MS4 Permit June 22, 2016

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Not Included in NOI	116	Part I.D.5.e.(vi) - The permittee must include in the SWMP a description of the mechanism(s) utilized to comply with each of the elements required in Part I.D.5.e.(i) throughout Part I.D.5.e.(v) and its corresponding measurable goal. A description of the means, methods, quality assurance and controls protocols, and schedule for successfully implementing the required screening, field monitoring, laboratory analysis, investigations, and analysis evaluation of data collected; and Part I.D.5.e.(vii) - The permittee shall assess the overall success of the program, and document the program effectiveness in the Annual Report.	Part I.D.5.e.(vi) - AMAFCA's Stormwater Quality Engineer will review the program requirements listed for the above-mentioned program elements, during the Annual Report process. A review of the screening completed and the data collected, if any, will be available upon request and AMAFCA will incorporate documentation by reference into the Annual Report. Part I.D.5.e.(vii) - AMAFCA will document the program effectiveness and program success. AMAFCA will incorporate documentation by reference into the Annual Report.	• As part of the Annual Report process each year, the Stormwater Quality Engineer will review the program requirements listed in Part I.D.5.e, for the above-mentioned SWMP elements, and develop a strategy, if applicable, to implement any new program requirements. • A review of the screening completed and the data collected, if any, will be available upon request and AMAFCA will incorporate documentation by reference into the Annual Report. • AMAFCA will document the program effectiveness and program success. AMAFCA will incorporate documentation by reference into the Annual Report.	Update as necessary for SWMP and progress reports submitted with subsequent annual reports, as applicable.
5.11	117	Enhance the program to include requirements in Part I.D.5.e.(ix). The permittee may: (a) Divide the jurisdiction into assessment areas where monitoring at fewer locations still provides sufficient information; (b) Downgrade high priority areas after the area has been screened at least once and there are citizen complaints on no more than 5 separate events within a 12 month period; (c) Rely on a cooperative program with other MS4s for detection and elimination of illicit discharges and illegal dumping; (d) If cooperative program, required detection program frequencies may be based on the combined jurisdictional area rather than individual jurisdictional areas to reduce total number of screening locations; (e) After screening a non-high priority area once, adopt an "in response to complaints only" IDDE for that area (no more than 2 separate events within a 12 month period); (f) Enhance the program to utilize methodologies consistent with those described in "Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments."	Part I.D.5.e.(ix).(a) - AMAFCA operates and maintains rainfall gauges for the NDC watershed to better understand runoff and evaluate monitoring locations. Future telemetry project will add screening capabilities for other outfalls. Part I.D.5.e.(ix).(b) - This enhancement may be considered and included in the future. Part I.D.5.e.(ix).(c) - AMAFCA currently coordinates with MS4s, as appropriate, and the ABCWUA for notification of illicit discharges. AMAFCA will continue to pursue developing similar cooperative coordination with other agencies. Part I.D.5.e.(ix).(d) and (e) - These cooperative elements may be considered in the future. Part I.D.5.e.(ix).(f) - AMAFCA had a consultant evaluate the AMAFCA IDDE program and develop recommendations for improving the program in order to comply with the MS4 Permit. The report included evaluating the procedures and methodologies described in "IDDE, A Guidance Manual for Program Development and Technical Assessments", for incorporation into AMAFCA's IDDE program. AMAFCA will continue to implement recommendations from this report, as appropriate.	• AMAFCA will document progress made with these program enhancement activities.	No Permit required schedule.
5.12	118	Item from MS4 Permit NOI. Describe other proposed activities to address the Illicit Discharges and Improper Disposal Measure.	AMAFCA will continue to utilize the Annual Report process as a means to perform a self-audit with the goal to improve its MS4 Programs.	• AMAFCA will annually document progress made related to the Annual Report and SWMP revision process as a means to perform a self-audit on the MS4 Program elements.	No Permit required schedule. Ongoing requirement of the MS4 Permit.

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	119	**TABLE 7: Control of Floatables Discharges - Part I.D.5.f**			
6.1	120	As required in Part I.D.5.f.(i), the permittee must develop, update, and implement a program to address and control floatables in discharges into the MS4. The floatables control program shall include source controls and, where necessary, structural controls. Permittees previously covered under NMS000101 or NMR04A000 must continue existing programs while updating those programs, as necessary, to comply with the requirements of this permit. The permittee shall develop or update a schedule to implement as required in Part I.D.5.f.(i).(a). Note: AMAFCA and COA should update the schedule according to the findings of the 2005 AMAFCA/COA Floatable and Gross Pollutant Study and other studies.	Part I.D.5.f.(i) and (i).(a) - AMAFCA will continue to implement a program to address and control floatables in discharges into the MS4. AMAFCA will continue to install stormwater quality features to control floatables, such as ported risers, trash racks, and screened inlets in both new construction and retrofits where appropriate. AMAFCA will continue to coordinate with COA relative to structural BMPs within AMAFCA rights-of-way.	• The AMAFCA Stormwater Quality Engineer will continue to review, revise, and implement a program to address and control floatables in discharges into the MS4. • AMAFCA will continue to cooperate and coordinate with COA relative to structural BMPs within AMAFCA rights-of-way. • AMAFCA will continue membership and involvement in the cooperative MS4 Technical Advisory Group (MS4 TAG), which will facilitate cooperation and coordination with other MS4s in the Middle Rio Grande related control of floatables discharges. • AMAFCA will continue utilizing the manual trash collection contracts. • AMAFCA is pursuing developing a cooperative program for this program element.	18 months (cooperative) from effective date of MS4 Permit June 22, 2016
6.2	121	Estimate the annual volume of floatables and trash removed from each control facility and characterize the floatable type as required in Part I.D.5.f.(i).(b).	Part I.D.5.f.(i).(b) - AMAFCA will continue to estimate the annual volume of floatables and trash removed from each control facility as well as to characterize the floatable type. The AMAFCA operations and maintenance crew and subcontractors document the volume of floatables, sediment, trash, and debris removed from AMAFCA facilities.	• AMAFCA will continue to estimate the annual volume of floatables and trash removed from each control facility and characterize the floatable type. • AMAFCA will continue to document crew activity, allowing AMAFCA to better and more easily determine the volume of floatables and sediment removed from each AMAFCA facility. • AMAFCA has updated, cooperative waste characterization study in the watershed during the Permit term.	10 months from effective date of MS4 Permit Oct. 22, 2015
6.3	122	Item from MS4 Permit NOI. Describe other proposed activities to address the Control of Floatables Discharges Measure.	AMAFCA will continue to utilize the Annual Report and SWMP revision process as a means to perform a self-audit with the goal to improve its MS4 Programs.	• AMAFCA will document progress made related to the Annual Report and SWMP revision process as a means to perform a self-audit on the MS4 Program elements.	No Permit required schedule. Ongoing requirement of the MS4 Permit.
Not Included in NOI	123	Update the SWMP document and Annual Report as required in Part I.D.5.f.(ii) and Part I.D.5.f.(iii). Part I.D.5.f.(ii) - The permittee must include in the SWMP a description of the mechanism(s) utilized to comply with each of the elements required in Part I.D.5.f.(i). Part I.D.5.f.(iii) - The permittee shall assess the overall success of the program, and document the program effectiveness in the Annual Report.	Part I.D.5.f.(ii)- AMAFCA's Stormwater Quality Engineer will review the program requirements listed for the above-mentioned program elements, during the Annual Report process. A strategy to implement any new program requirements or improve the compliance with program requirements will be developed as needed. Part I.D.5.f.(iii) - AMAFCA will document the program effectiveness and program success. AMAFCA will incorporate documentation by reference into the Annual Report.	• As part of the Annual Report process each year, the Stormwater Quality Engineer will review the program requirements listed in Part I.D.5.f, for the above-mentioned SWMP elements, and assess the overall success of the program. AMAFCA will document the program effectiveness and program success. AMAFCA will incorporate documentation by reference into the Annual Report.	Update as necessary for SWMP and progress reports submitted with subsequent annual reports, as applicable.

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	124	**TABLE 8: Public Education and Outreach on Stormwater Impacts - Part I.D.5.g**			
7.1	125	Develop, revise, implement, and maintain an education and outreach program as required in Part I.D.5.g.(i) and Part I.D.5.g.(ii). This comprehensive stormwater program should educate the community, employees, businesses, and the general public of hazards associated with the illegal discharges and improper disposal of waste and about the impact that stormwater discharges on local waterways, as well as the steps that the public can take to reduce pollutants in stormwater.	Part I.D.5.g.(i) - As a dues paying member of the MRGSQT, AMAFCA will continue to collaborate with the MS4 permittees to implement and improve upon the existing Public Education and Outreach program. The MRGSQT has a consulting firm under contract to act as Stormwater Coordinator and assist the team in providing public education and outreach on stormwater impacts. Included in the Stormwater Coordinator scope is to provide an Outcomes Report to the team members to summarize the yearly outreach activities through different media and methods, target audiences, and estimated number of individuals reached. In addition to the cooperative elements with MRGSQT, AMAFCA will continue to conduct education and outreach presentations to the community specific to AMAFCA facilities and water quality.	• AMAFCA will continue to contribute to and participate in the MRGSQT. • AMAFCA will continue to conduct education and outreach presentations to the community specific to AMAFCA facilities and water quality. AMAFCA's efforts will be included in the MRGSQT Outcomes Report. This report is available upon request.	14 months (cooperative) from effective date of MS4 Permit February 22, 2016
Not Included in NOI	126	Part I.D.5.g.(ii), the permittee must implement a public education program to distribute educational knowledge to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff. The permittee must: Part I.D.5.g.(ii).(a),Define the goals and objectives of the program based on high priority community-wide issues; Part I.D.5.g.(ii)(b),Develop or utilize appropriate educational materials, such as printed materials, billboard and mass transit advertisements, signage at select locations, radio advertisements, television advertisements, and websites.	Part I.D.5.g.(ii).(a) - The MRGSQT has developed a matrix to define the Public Education and Outreach objectives, priorities, and target audiences. The matrix will be reviewed and updated, as necessary, throughout the Permit term. Part I.D.5.g.(ii).(b) - The MRGSQT will continue to develop and utilize appropriate educational materials such as brochures, media campaigns, public presentations/events, giveaways, display booths/kiosks, signage at select locations, and postings on social media sites (Facebook) and websites. The types of materials utilized by the MRGSQT are summarized in the annual Outcomes Report.	• AMAFCA, through its participation in the MRGSQT will review, throughout the Permit term, and update, as necessary, the program matrix to define the Public Education and Outreach and Public Involvement and Participation objectives, priorities, and target audiences. The Program Matrix is available upon request. • The MRGSQT will continue to develop and utilize appropriate educational materials such as brochures, media campaigns, public presentations/events, giveaways, display booths/kiosks, signage at select locations, and postings on social media sites (Facebook) and websites.	14 months (cooperative) from effective date of MS4 Permit February 22, 2016
Not Included in NOI	127	Part I.D.5.g.(ii).(c), Inform individuals and households about ensuring proper septic system maintenance, ensuring the proper use and disposal of landscape and garden chemicals including fertilizers and pesticides, protecting and restoring riparian vegetation, and properly disposing of used motor oil or household hazardous wastes;	Part I.D.5.g.(ii).(c) - The MRGSQT's program matrix and Public Education and Outreach programs include proper septic system maintenance, proper use and disposal of landscape and garden chemicals including fertilizers and pesticides, and properly disposing of household hazardous wastes.	• The MRGSQT will continue to include these specific educational areas in their program matrix and reporting on these areas in their annual Outcomes Report. The Program Matrix is available upon request.	14 months (cooperative) from effective date of MS4 Permit February 22, 2016

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Not Included in NOI	128	Part I.D.5.g.(ii).(d), Inform individuals and groups how to become involved in local stream and beach restoration activities as well as activities that are coordinated by youth service and conservation corps or other citizen groups.	Part I.D.5.g.(ii).(d) - The MRGSQT, which AMAFCA is a member, utilizes volunteers throughout communities within the watershed to assist with park, open space, trail, and river cleanup projects. Communication for Public Education and Outreach and Public Involvement and Participation is achieved by activities organized with youth service groups, conservation corps, and other citizen groups. In addition, AMAFCA will continue to foster Public Education and Outreach and Public Involvement and Participation programs, including Earth Force - Keep it Clean student outreach, Talking Talons Youth Leadership Activities, and Rocky Mountain Youth Corps programs.	• The MRGSQT will continue communication for public involvement and participation activities as well as assist with communication for Public Education and Outreach and Public Involvement and Participation activities organized by youth service groups, conservation corps, and other citizen groups. These volunteer activities will be summarized in the annual MRGSQT Outcomes Report. The MRGSQT Outcomes Report is available upon request. • Through the MRGSQT, two partner education programs, BEMP and RiverXchange, are supported. These are innovative, long-term outreach programs that integrate water resource topics with computer technology, student writing, and a hands-on curriculum to meet specific, measurable outcomes. The main objective of the Stormwater Science outreach education programs is to teach students that the health of the Rio Grande is directly related to the health of the surrounding watershed. • AMAFCA will continue to foster Public Education and Outreach and Public Involvement and Participation programs, including Earth Force, Talking Talons Youth Leadership Activities, and Rocky Mountain Youth Corps programs.	14 months (cooperative) from effective date of MS4 Permit February 22, 2016
Not Included in NOI	129	Part I.D.5.g.(ii).(e), Use tailored public education program, using a mix of locally appropriate strategies, to target specific audiences and communities. Examples of strategies include distributing brochures or fact sheets, sponsoring speaking engagements before community groups, providing public service announcements, implementing educational programs targeted at school age children, and conducting community-based projects such as storm drain stenciling, and watershed cleanups;	Part I.D.5.g.(ii).(e) - The MRGSQT will continue to organize comprehensive Public Education and Outreach programs with appropriate strategies to target specific audiences in the Middle Rio Grande community.	• The MRGSQT will continue to include comprehensive education programs with appropriate strategies to target specific audiences in the Middle Rio Grande community. The target audiences for the educational programs will be identified in the Outcomes Report.	14 months (cooperative) from effective date of MS4 Permit February 22, 2016
Not Included in NOI	130	Part I.D.5.g.(ii).(f), Use materials or outreach programs directed toward targeted groups of commercial, industrial, and institutional entities likely to have significant stormwater impacts. For example, providing information to restaurants on the impact of grease clogging storm drains and to garages on the impact of oil discharges. The permittee may tailor the outreach program to address the viewpoints and concerns of all communities, particularly minority and disadvantaged communities, as well as any special concerns relating to children. The permittee must make information available for non-English speaking residents, where appropriate.	Part I.D.5.g.(ii).(f) - The MRGSQT will continue to include Public Education and Outreach programs directed toward commercial, industrial, engineering/contractors, and other institutional entities to meet the MS4 Permit requirements. Where outreach target groups include Spanish-speaking residents, MRGSQT may have Spanish-translations available of public meeting announcements and data sheets. The need for bi-lingual outreach will be assessed by the MRGSQT as needed.	• The MRGSQT cooperative programs will continue to include information on Public Education and Outreach and Public Involvement and Participation programs directed toward commercial, industrial, engineering/contractors, and other institutional entities. • Where outreach target groups include Spanish-speaking residents, MRGSQT may have Spanish-translations available of public meeting announcements and data sheets. The need for bi-lingual outreach will be assessed by the MRGSQT as needed.	14 months (cooperative) from effective date of MS4 Permit February 22, 2016

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7.2	131	Update the SWMP document and Annual Report as required in Part I.D.5.g.(iii) and Part I.D.5.g.(iv). Part I.D.5.g.(iii), The permittee must include the following information in the SWMP document: (a) A description of a program to promote, publicize, facilitate public reporting of the presence of illicit discharges or water quality associated with discharges from MS4s; (b) A description of the education activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials; (c) A description of the mechanism(s) utilized to comply with each of the elements required in Part I.D.5.g.(i) and Part I.D.5.g.(ii) and its corresponding measurable goal. Part I.D.5.g.(iv), The permittee must assess the overall success of the program, and document both direct and indirect measurements of program effectiveness in the Annual Report.	Part I.D.5.(g).(iii) - (a) MS4s that are members of the MRGSQT benefit from the Albuquerque 311 Citizen Contact Center. Reports for illicit discharge can be done by phone, on-line, e-mail, or through an app on cellular phones. (b) Educational and public outreach activities are primarily handled through the MRGSQT. (c) This SWMP, AMAFCA's Annual Reports, and the MRGSQT outreach coordinator contract all serve an mechanisms to comply with the elements in this section of the permit. Refer to the above SWMP program elements for additional information. AMAFCA's Stormwater Quality Engineer will review the program requirements listed for the above-mentioned program elements during the SWMP update and Annual Report process. A strategy to implement any new program requirements or improve compliance with the program requirements will be discussed with the MRGSQT and developed as required. Part I.D.5.(g).(iv) - AMAFCA will document the program effectiveness and program success. AMAFCA will incorporate documentation by reference into the Annual Report.	• The AMAFCA Stormwater Quality Engineer will review and include the program requirements listed in Part I.D.5.g during the SWMP update and Annual Report process. • AMAFCA will document the program effectiveness and program success. AMAFCA will incorporate documentation by reference into the Annual Report. • The MRGSQT will use surveys to assist with determining the effectiveness of programs.	Update as necessary for SWMP and progress reports submitted with subsequent annual reports, as applicable.
7.2	132	Enhance the program to include Program Flexibility Elements in Part I.D.5.g.(v) through Part I.D.5.g.(viii). Part I.D.5.g.(v), Where necessary to comply with the MS4 Permit, the permittee should develop a program or modify/revise an existing education and outreach program to: (a) Promote, publicize, and facilitate the use of GI/LID/Sustainability practices; and (b) Include an integrated public education program regarding litter reduction, reduction in pesticide/herbicide use, recycling, and disposal (including yard waste, hazardous waste materials, and used motor vehicle fluids), and GI/ LID/ Sustainable practices (as allowed by the NM OSE).	Part I.D.5.g.(v).(a) and (b) - AMAFCA will continue to include in its (and in the cooperative MRGSQT) Public Education and Outreach program: GSI/LID/sustainability practices, litter reduction, herbicide and pesticide proper use and reduction (AMAFCA does not apply fertilizers in its operations), recycling, proper disposal of hazardous waste, proper disposal motor vehicle fluids, and proper disposal of yard waste.	• AMAFCA will document progress made with these program enhancement activities.	No Permit required schedule.
Not Included in NOI	133	Enhance the program to include Program Flexibility Elements in Part I.D.5.g.(v) through Part I.D.5.g.(viii) [continued] Part I.D.5.g.(vi), The permittee may collaborate or partner with other MS4 operators to maximize the program and cost effectiveness of the required outreach.	Part I.D.5.g.(vi) - The MRGSQT is a cooperative effort allowing watershed MS4 participants to maximize their education, outreach, participation, and involvement programs in a cost effective manner. As a dues paying member of the MRGSQT, AMAFCA will continue to collaborate with the MS4 permittees to implement and improve upon the existing Public Education and Outreach and Public Involvement and Participation programs.	• AMAFCA will continue to contribute to and participate in the MRGSQT in order to maximize their Public Education and Outreach and Public Involvement and Participation programs in a cost effective manner.	No Permit required schedule.
Not Included in NOI	134	Enhance the program to include Program Flexibility Elements in Part I.D.5.g.(v) through Part I.D.5.g.(viii). [continued] Part I.D.5.g. (vii), The education and outreach program may use citizen hotlines as a low-cost strategy to engage the public in illicit discharge surveillance.	Part I.D.5.g.(vii) - MS4s that are members of the MRGSQT benefit from the Albuquerque 311 Citizen Contact Center. The 311 service is a single telephone number for all non-emergency inquiries and services. This program includes citizen calls regarding illicit discharges and notifies AMAFCA of such calls within its jurisdiction.	• MS4s that are members of the MRGSQT benefit from the Albuquerque 311 Citizen Contact Center. This is discussed in more detail in the Illicit Discharges and Improper Disposal Control Measure.	No Permit required schedule.

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Not Included in NOI	135	Enhance the program to include Program Flexibility Elements in Part I.D.5.g.(v) through Part I.D.5.g.(viii). [continued] Part I.D.5.g. (viii), The permittee may use stormwater educational materials provided by the State, Tribe, EPA, environmental groups, public interest or trade organ., or other MS4s. The permittee may also integrate the education and outreach program with existing education and outreach programs in the MRG area. Examples of existing programs include: Classroom education on stormwater that allows students to develop watershed map to help students visualize area impacted and develop pet specific education. As well as education and outreach programs for commercial activities, lawn and garden activities, sustainable practices, pet waste management, proper disposal of household waste, trash management, water conservation practices designed to reduce pollutants in stormwater for home residences. Existing programs should include regular employee trainings with industry groups and contribute and participate in Stormwater Quality Team.	Part I.D.5.g.(viii) - The MRGSQT may utilize educational materials provided by the State, Tribe, EPA, environmental groups, public interest or trade organizations, or other MS4s.	• The MRGSQT may utilize materials, as appropriate, provided by the State, Tribe, EPA, environmental groups, public interest or trade organizations, or other MS4s. The types of materials and program focus for the materials utilized will be summarized in the annual MRGSQT Outcomes Report. This report is available upon request.	No Permit required schedule.

NOI Section	ID	Permit Activity Description	Plan SWMP Rev. 8 - July 1, 2025	Measurable Goal SWMP Rev. 8 - July 1, 2025	Permit Required Implementation Schedule
	136	**TABLE 9: Public Involvement and Participation - Part I.D.5.h**			
8.1	137	Develop (or update), implement, and maintain a public involvement and participation plan as required in Part I.D.5.h.(ii). This plan should provide opportunities for participation in the review, modification and implementation of the SWMP; develop and implement a process by which public comments to the plan are received and reviewed by the person(s) responsible for the SWMP; and make the SWMP available to the public and to the operator of any MS4 or Tribal authority receiving discharges from the MS4.	Part I.D.5.h.(ii) - AMAFCA will continue its Public Involvement and Participation program to encourage public involvement in the review, modification and implementation of the AMAFCA SWMP.	• AMAFCA will post the draft of any SWMP revision and draft Annual Reports to the www.amafca.org website with an explanation of the public comment period and instructions on how to submit comments. The posted documents will provide explanations of substantial changes, if applicable.	10 months from effective date of MS4 Permit Oct. 22, 2015
8.1	138	As required in Part I.D.5.h.(iii), the Public Involvement and Participation Plan shall include a comprehensive planning process which involves public participation and where necessary intergovernmental coordination. The permittee must include the following elements in the plan: (a) A detailed description of the general plan for informing the public of involvement and participation opportunities, including types of activities; target audiences; how interested parties may access the SWMP; and how the public was involved in development of the SWMP; (b) The development and implementation of at least one (1) assessment of public behavioral change following a public education and/or participation event; (c) A process to solicit involvement by environmental groups, environmental justice communities, civic organizations or other neighborhoods /organizations interested in water quality-related issues; and (d) An evaluation of opportunities to utilize volunteers for stormwater pollution prevention activities and awareness throughout the area.	Part I.D.5.h.(iii) - As allowed in this Permit section's "Program Flexibility Elements", AMAFCA, through its involvement with the MRGSQT, has integrated this section of the Public Involvement and Participation program with the existing Public Education and Outreach programs in the Middle Rio Grande area. The program includes: (a) A general plan for public of involvement and participation opportunities, including types of activities; target audiences; how interested parties may access the SWMP; and how to encourage public involvement in development and updates of the SWMP; (b) The development and implementation of water quality surveys to assess public knowledge and behavioral change following a public education and/or participation event; (c) A process to solicit involvement in development and updates of the SWMP through following the 45-day Annual Report and 30-day SWMP public comment period; and (d) An evaluation of opportunities to utilize volunteers for stormwater pollution prevention activities, including maintaining Mutt Mitt stations.	• AMAFCA will contribute and participate in the MRGSQT, which participates in public events and solicits public participation and feedback by way of volunteer participation and water quality surveys. The MRGSQT supported partner outreach education programs include participation metrics. In addition, the MRGSQT has developed and will include surveys for public behavior changes and feedback at their events. • AMAFCA will continue to follow the 45-day Annual Report and 30-day SWMP public comment period during the term of this Permit. • AMAFCA will continue to provide Mutt Mitt stations and seek volunteers to maintain the stations. AMAFCA will continue documenting this activity and reviewing metrics during the term of this Permit.	1 year (cooperative) from effective date of MS4 Permit Dec. 22, 2015
8.2	139	Comply with State, Tribal, and local notice requirements when implementing a Public Involvement and Participation Program as required in Part I.D.5.h.(iv). Reporting notification requirements also in Part III.D.4.	Part I.D.5.h.(iv) & Part III.D.4 - AMAFCA will provide digital copies of all MS4 compliance reporting documents to the NMED, Pueblos of Sandia and Isleta as required of the MS4 Permit. The SWMP and Annual Reports are also available on the amafca.org website.	• AMAFCA will provide digital copies of MS4 compliance reporting documents, as appropriate, to the NMED, Pueblos of Sandia and Isleta as required here and in Part III.D.4 of the MS4 Permit. • AMAFCA will continue to post the SWMP and Annual Reports on the www.amafca.org website.	10 months from effective date of MS4 Permit Oct. 22, 2015

NOI Section	ID	Permit Activity Description	Plan SWMP Rev. 8 - July 1, 2025	Measurable Goal SWMP Rev. 8 - July 1, 2025	Permit Required Implementation Schedule
8.3	140	Include elements as required in Part I.D.5.h.(v). The public participation process must reach out to all economic and ethnic groups. Opportunities for members of the public to participate in program development and implementation include serving as citizen representatives on a local stormwater management panel, attending public hearings, working as citizen volunteers to educate other individuals about the program, assisting in program coordination with other preexisting programs, or participating in volunteer monitoring efforts.	Part I.D.5.h.(v) - As allowed in this Permit section's "Program Flexibility Elements", AMAFCA, through its involvement with the MRGSQT cooperative programs, has integrated this section of the Public Involvement and Participation program with existing Public Education and Outreach programs in the Middle Rio Grande area. AMAFCA will continue to include stormwater quality information for the public at events, including public meetings. AMAFCA may have Spanish translations, as needed, of public meeting announcements and data sheets.	• AMAFCA will continue to include (along with the cooperative MRGSQT programs) water quality information for the public at events, including public meetings. Where neighborhoods include Spanish-speaking residents, MRGSQT may have Spanish-translations available of public meeting announcements and data sheets. By attending a variety of events at widespread locations throughout the area the MRGSQT ensures that a wide-range of economic and ethnic groups are reached, as documented in the Outcomes Report. • AMAFCA will use the Watershed Protection Advisory Board, Public Involvement Committee, as a mechanism to reach out to the community for volunteers and to solicit input through public meetings and discussions.	18 months (cooperative) from effective date of MS4 Permit June 22, 2016
8.4	141	Update the SWMP document and Annual Report as required in Part I.D.5.h.(vi), Part I.D.5.h.(vii), and Part I.D.5.h.(viii). The permittee must include in the SWMP a description of the mechanisms utilized to comply with each of the elements required in Parts I.D.5.h.(i) throughout part I.D.5.h.(iv) and its corresponding measurable goal. The permittee shall assess the overall success of the program, and document the program effectiveness in the Annual Report. The permittee must provide public accessibility of the SWMP and Annual Reports online via the Internet and during normal business hours at the MS4 operator's main office for public inspection and copying consistent with any applicable federal, state, tribal, or local open records requirements. Upon a showing of significant public interest, the MS4 operator is encouraged to hold a public meeting (or include in the agenda of in a regularly scheduled city council meeting, etc.) on the NOI, SWMP, and Annual Reports.	Part I.D.5.h.(vi) - AMAFCA's Stormwater Quality Engineer will review the program requirements listed for the above-mentioned program elements during the SWMP update and Annual Report process. A strategy to implement any new program requirements or improve compliance with the program requirements will be discussed with the MRGSQT, if applicable, and developed as needed. Part I.D.5.h.(vii) - AMAFCA will document the program effectiveness and program success. AMAFCA will incorporate documentation by reference into the Annual Report. Part I.D.5.h.(viii) - AMAFCA will provide public accessibility of the SWMP and Annual Reports online via the Internet on the www.amafca.org website.	• The AMAFCA Stormwater Quality Engineer will review and include the program requirements listed in Part I.D.5.g during the SWMP update and Annual Report process. • AMAFCA will document the program effectiveness and program success. AMAFCA will incorporate documentation by reference into the Annual Report. • AMAFCA will provide public accessibility of the current SWMP document and the most recent Annual Report online via the Internet on the www.amafca.org website.	Update as necessary for SWMP and progress reports submitted with subsequent annual reports, as applicable.
8.5	142	Enhance the program to include requirements in Part I.D.5.h.(ix). The permittee may integrate the public involvement and participation program with existing education and outreach programs in the Middle Rio Grande area. Example of existing programs include: Adopt-A-Stream Programs; Attitude Surveys; Community Hotlines (e.g. establishment of a '311'-type number and system established to handle storm-water-related concerns, setting up a public tracking/reporting.	Part I.D.5.h.(ix) - AMAFCA will continue to include in its (and in the cooperative MRGSQT programs) public involvement and participation programs: funds toward groups which include public participation, such as Boy or Girl Scouts of America, the Bosque Ecosystem Monitoring Program (BEMP), RiverXchange, Earth Force - Keep it Clean student outreach, Talking Talons Youth Leadership Activities, and Youth Corps programs. MS4s that are members of the MRGSQT benefit from the Albuquerque 311 Citizen Contact Center.	• AMAFCA will document progress made with these program enhancement activities. AMAFCA and the MRGSQT will continue to review, update, and enhance public involvement and participation programs. The MRGSQT Outcomes Report will provide the documentation for this Permit activity. This report is available upon request. • MS4s that are members of the MRGSQT benefit from the Albuquerque 311 Citizen Contact Center. This is discussed in more detail in the Illicit Discharges and Improper Disposal Control Measure.	No Permit required schedule.
8.6	143	Item from MS4 Permit NOI. Describe other proposed activities to address the Public Involvement and Participation Measure.	AMAFCA will continue to utilize the Annual Report and SWMP revision process as a means to perform a self-audit with the goal to improve its MS4 Programs.	• AMAFCA will document progress made related to the Annual Report and SWMP revision process as a means to perform a self-audit on the MS4 Program elements.	No Permit required schedule. Ongoing requirement of the MS4 Permit.

NOI Section	ID	Permit Activity Description	Plan SWMP Rev. 8 - July 1, 2025	Measurable Goal SWMP Rev. 8 - July 1, 2025	Permit Required Implementation Schedule
	144	**Part III - Monitoring, Assessment and Reporting Requirements**			
	145	**TABLE 10: Wet Weather Monitoring Program - Part III.A.1**			
See NOI Sections Below	146	According to the requirements in Part III.A.1., The permittee must develop, in consultation with NMED and EPA (and affected Tribes if monitoring locations would be located on Tribal lands), and implement a comprehensive monitoring and assessment program. The permittees shall conduct wet weather monitoring to gather information on the response of receiving waters to wet weather discharges from the MS4 during both wet season (July 1 through October 31) and dry season (November 1 through June 30). Wet Weather Monitoring shall be conducted at outfalls, internal sampling stations, and/or in-stream monitoring locations at each water of the US that runs in each entity or entities' jurisdiction(s).	Part III.A.1 - Wet weather screening is synonymous with compliance monitoring. In the MRG MS4 Permit area, stormwater runoff discharges to the Rio Grande at outfall locations via major drainage channels, storm drains, and pump stations. The Rio Grande, the only perennial river in the watershed, enters the MRG Watershed in one location (North of Albuquerque) and leaves the MRG Watershed south of Albuquerque. Details for this program are provided in the SWMP sections below.	The program details and measurable goals are described below. The Final Sampling Plan for Cooperative Compliance Monitoring (CMC) was submitted to EPA on May 5, 2016. The sampling plan was accepted by the EPA and NMED. The current 2014 Middle Rio Grande Watershed Based Municipal Separate Storm Sewer System (MS4) Permit, NPDES Permit No. NMR04A000, expired on December 19, 2019. The MRG Watershed Based MS4 Permit entered into administrative continuance in Dec. 2019 when EPA Region 6 did not issue a new MS4 Permit before the 2014 MS4 Permit expired. The MS4 TAG sent EPA an Administrative Continuance letter dated October 15, 2019. Until a new MS4 Permit is issued, there are no wet and dry weather monitoring requirements in the Rio Grande. However, during administrative continuance, the CMC members will evaluate and may choose to continue sampling to support their MS4 program needs, demonstrate program progress, or gather additional data in support of the future Permit compliance.	See specific Permit activity schedules below.
IV	147	Part III.A.3.1.b. Option B: Cooperative Monitoring Program Develop a cooperative wet weather monitoring program with other permittees in the Middle Rio Grande Watershed. The program will monitor waters coming into the watershed (upstream) and leaving the watershed (downstream). The program must include sampling for TSS, TDS, COD, BOD5, DO, oil and grease, E. coli, pH, total kjeldahl nitrogen, nitrate plus nitrite, dissolved phosphorus, total ammonia plus organic nitrogen, total phosphorus, PCBs and Gross alpha. Monitoring of temperature shall be also conducted at outfalls and/or Rio Grande monitoring locations. Permittees must include additional parameters from monitoring conducted under permits NMS000101, NMR04A000 or/and NMR040001 whose mean values are at or above a WQS. The monitoring program must sample the pollutants for a minimum of 7 storm events per location during the permit term with at least 3 events in the wet season and 2 events in the dry season.	Part III.A.3.1.b. Option B: Cooperative Monitoring Program -The cooperative wet weather compliance monitoring will monitor waters coming into the watershed (upstream) and leaving the watershed (downstream) for a minimum of 7 storm events per location during the Permit term with at least 3 in the events in the wet season and 2 events in the dry season. The wet season is defined in the permit as July 1 through October 31 and the dry season as November 1 through June 30. AMAFCA joined the Compliance Monitoring Cooperative (CMC) group, which includes 12 watershed partners. The participatory permittees have developed a cooperative wet weather compliance monitoring program to assess the effect of stormwater discharges on the receiving water, the Middle Rio Grande. This monitoring plan was reviewed and discussed with NMED and EPA during its development. The cooperative sampling plan was accepted by EPA and permittees submitted the sampling plan on May 5, 2016 and sampling certification to EPA on June 28, 2016. At the end of FY 2019, all Permit required samples have been obtained by the CMC.	• If the CMC does continue wet weather compliance monitoring during administrative continuance of this Permit, the monitoring program will follow the Permit requirements for parameters tested (TSS, TDS, COD, BOD5, DO, oil and grease, E. coli, pH, total kjeldahl nitrogen, nitrate plus nitrite, dissolved phosphorus, total ammonia plus organic nitrogen, total phosphorus, PCBs, Gross alpha, and temperature). In addition, parameters from stormwater monitoring conducted under Permit NMS000101, whose mean values were at or above a WQS, will also be tested. The complete list of parameters is listed in the CMC sampling plan. In addition, DO, pH, conductivity, and temperature will be analyzed in the field within 15 minutes of sample collection. • If the CMC does continue wet weather compliance monitoring during administrative continuance of this Permit, the parameter list may be modified based on a review of the results obtained within the watershed and the program assessment needs for the permittees. AMAFCA will document, as applicable, any wet weather monitoring activity. AMAFCA will incorporate documentation by reference into the Annual Report and plans to document progress on the AMAFCA website. • If the CMC does continue wet weather compliance monitoring during administrative continuance of this Permit, the monitoring program will be conducted according to the approved Sampling Plan for Compliance Monitoring.	Monitoring program will sample the pollutants for a minimum of 7 storm events per location during the permit term with at least 3 events in the wet season and 2 events in the dry season. This Permit activity is complete

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IV	148	As required in Part III.A.1.e. and Table 10, the permittees shall submit wet weather monitoring preference Option A or Option B to EPA (i.e., individual monitoring program vs. cooperative monitoring program) with NOI submittals.	Part III.A.1.e, Table 10 - AMAFCA submitted its NOI in compliance with the permit requirements and schedule. AMAFCA will participate in Option B - cooperative monitoring program.	• This Permit activity is complete.	N/A - Permit activity is complete
Not Included in NOI	149	Part III.A.1.e, Table 10 - Submit a detailed description of the monitoring scheme to EPA and NMED for approval. The monitoring scheme should include: a list of pollutants; a description of monitoring sites with an explanation of why those sites were selected; and a detailed map of all proposed monitoring sites. In addition, as required in Part III.A.1.h, the monitoring program must include a contingency plan for collecting additional monitoring data within the MS4 or at additional appropriate instream locations should monitoring results indicate that MS4 discharges may be contributing to instream exceedances of WQS. The purpose of this additional monitoring effort would be to identify sources of elevated pollutant loadings so they could be addressed by the SWMP.	Part III.A.1.e, Table 10 - AMAFCA joined the Compliance Monitoring Cooperative (CMC) group, which includes 12 watershed partners. The participatory permittees have developed a wet weather cooperative monitoring program to assess the effect of stormwater discharges on the receiving water, the Middle Rio Grande. This monitoring plan was reviewed and discussed with NMED and EPA during its development. Multiple drafts were submitted to EPA and NMED by the CMC, including drafts on Sept. 16, 2015 and Dec. 21, 2015. The cooperative monitoring plan was accepted by EPA and permittees submitted the sampling plan on May 5, 2016 and sampling certification to EPA on June 28, 2016. Modifications to this sampling may be submitted to the EPA in the future, as needed for approval.	• This Permit activity is complete. • The CMC members have met all requirements for wet weather compliance monitoring. If the CMC does continue wet weather monitoring during administrative continuance of this Permit, the monitoring program will be conducted according to the EPA/NMED approved monitoring plan.	1 year (cooperative) from effective date of MS4 Permit Dec. 22, 2015
Not Included in NOI	150	Part III.A.1.e, Table 10 - Submit certification that all wet weather monitoring sites are operational and begin sampling.	Part III.A.1.e, Table 10 - AMAFCA submitted its sampling certification to EPA on June 28, 2016.	• This Permit activity is complete. • AMAFCA, with its cooperative partners, has submitted certifications to the EPA that all wet weather compliance monitoring sites are operational and the CMC has begun sampling, according to the Permit requirements.	14 months (cooperative) from effective date of MS4 Permit February 22, 2016
Not Included in NOI	151	As required in Part III.A.1.e, update SWMP document and submit Annual Reports. The results of the Wet Weather Monitoring must be provided in each Annual Report. As required in Part III.D.1 -Monitoring results obtained during the reporting period running from July 1st to June 30th shall be submitted on discharge monitoring report (DMR) forms along with the Annual Report required by Part III.B. A separate DMR form is required for each monitoring period (season) specified in Part III.A.l. If any individual analytical test result is less than the minimum quantification level (MQL) listed for that parameter, then a value of zero (0) may be used for that test result for the DMR calculations and reporting requirements. The Annual Report shall include the actual value obtained, if test result is less than the MQL.	Part II.A.1.e, Table 10 - AMAFCA's Stormwater Quality Engineer will review the program requirement for the above-mentioned program elements, during the Annual Report process. A strategy to implement any new program requirements or improve compliance with the program requirements will be developed as needed. Part III.D.1 - The wet weather compliance monitoring results obtained by the CMC from July 1st to June 30th will be submitted as required by the EPA using the netDMR online website or as otherwise approved by EPA as part of the cooperative sampling program. EPA has required that the NetDMR online system be used to submit DMR results. Since this Permit will be in administrative continuance, and all required compliance monitoring results have been obtained, AMAFCA anticipates additional coordination with EPA relative to future samples uploaded to the NetDMR system. Monitoring results obtained from any continued CMC stormwater quality monitoring are available upon request.	• As part of the Annual Report process each year, the Stormwater Quality Engineer will review the program requirements listed in Part III.A.1, for the above-mentioned SWMP elements, and assess the overall success of the program. AMAFCA will document the program effectiveness and program success. AMAFCA will incorporate documentation by reference into the Annual Report. • The CMC members have met all requirements for wet weather compliance monitoring. If the CMC does continue wet weather monitoring during administrative continuance of this Permit, the wet weather compliance monitoring results obtained from July 1st to June 30th will be submitted as required by the EPA using the NetDMR online website or as otherwise approved by EPA as part of the cooperative sampling program. Since this Permit is in administrative continuance, and all required compliance monitoring results have been obtained, AMAFCA anticipates additional coordination with EPA relative to future samples uploaded to the NetDMR system. • Monitoring results obtained from any continued CMC stormwater quality monitoring are available upon request.	Update as necessary for SWMP.

NOI Section	ID	Permit Activity Description	Plan SWMP Rev. 8 - July 1, 2025	Measurable Goal SWMP Rev. 8 - July 1, 2025	Permit Required Implementation Schedule
	152	**Dry Weather Discharge Screening of MS4 - Part III.A.2**			
Not Included in NOI	153	According to the requirements in Part III.A.2., Each permittee shall identify, investigate, and address areas within its jurisdiction that may be contributing excessive levels of pollutants to the Municipal Separate Storm Sewer System as a result of dry weather discharges (i.e., discharges from separate storm sewers that occur without the direct influence of runoff from storm events, e.g. illicit discharges, allowable non-stormwater, groundwater infiltration, etc.). Due to the arid and semi-arid conditions of the area, the dry weather discharges screening program may be carried out during both wet season (July I through October 31) and dry season (November 1 through June 30). Results of the assessment shall be provided in each Annual Report.	Part III.A.2 - The program details and measurable goals are described below, in the Pollution Prevention/Good Housekeeping Control Measure, and in the Illicit Discharge and Improper Disposal Control Measure. There are no perennial streams in the Albuquerque area that contribute to the Rio Grande. As such, the dry weather screening program serves a dual purpose as an illicit discharge screening analysis.	• The program details and measurable goals are described below, in the Pollution Prevention/Good Housekeeping Control Measure, and in the Illicit Discharge and Improper Disposal Control Measure.	See specific Permit activity schedules below.
Not Included in NOI	154	Part III.A.2 -This program may be coordinated with the illicit discharge detection and elimination program required in Part I.D.5.e. The dry weather screening program shall be described in the SWMP and comply with the schedules contained in Part I.D.5.e.(iii). The permittee shall: a) Include sufficient screening points to adequately assess pollutant levels from all areas of the MS4. b) Screen for, at a minimum, BOD5, sediment or a parameter addressing sediment (e.g., TSS or turbidity), E. coli, Oil and Grease, nutrients, any pollutant that has been identified as cause of impairment of a waterbody receiving discharges from that portion of the MS4, including temperature. c) Specify the sampling and non-sampling techniques to be issued for initial screening and follow-up purposes. d) Perform monitoring only when an antecedent dry period of at least 72 hours after a rain event greater than 0.1 inch in magnitude is satisfied. Monitoring methodology shall consist of collecting a minimum of 4 grab samples spaced at a minimum interval of 15 minutes each.	Part III.A.2 - AMAFCA will continue with the existing, cooperative Dry Weather Screening program in place under MS4 Permit NMS000101. The existing Dry Weather Screening program cooperative program with COA includes screening various locations, which screen 100% of COA/AMAFCA jurisdiction and targets industrial areas. Should any discharge be present in a quantity sufficient for analysis, it will be screened for BOD5, sediment (e.g., TSS or turbidity), E. coli, oil and grease, and nutrients. Any discharge collected will be sampled according to the Permit monitoring methodology given sufficient flow. A single grab sample will be collected in the absence of adequate flow volume required for a composite sample. In addition, AMAFCA has in place a well-defined and implemented routine inspection and O&M program that includes both formal and informal inspections and maintenance schedules for its watershed protection elements. AMAFCA will continue membership and involvement in the cooperative MS4 Technical Advisory Group (MS4 TAG), which will facilitate cooperation and coordination with other MS4s in the Middle Rio Grande related to screening for illicit discharges.	• Under MS4 Permit NMR04A000, COA has taken the lead on this program and is responsible for the dry weather screening and documentation for this existing program. Screening information collected by the COA can be provided upon request. • AMAFCA will continue to perform inspections according to the applicable O&M Manuals and Plans. These inspections also function as dry weather inspections. • AMAFCA will continue membership and involvement in the cooperative MS4 Technical Advisory Group (MS4 TAG) which will facilitate cooperation and coordination with other MS4s in the Middle Rio Grande related to screening for illicit discharges.	Cooperative Program -as required in part I.D.5.e.(iii) -Years 1 -3: develop procedures as required in Part I.D.5.e.(i).(c). -Year 4: screen 30% of the MS4 area. -Year 5: screen 70% of the MS4 area.

NOI Section	ID	Permit Activity Description	Plan SWMP Rev. 8 - July 1, 2025	Measurable Goal SWMP Rev. 8 - July 1, 2025	Permit Required Implementation Schedule
	155	**Floatables Monitoring - Part III.A.3**			
Not Included in NOI	156	According to the requirements in Part III.A.3., The permittees shall establish locations for monitoring/assessing floatable material in discharges to and/or from their MS4. A cooperative monitoring program may be established in partnership with other MS4s to monitor and assess floatable material in discharges to and/or from a joint jurisdictional area or watershed basis. Floatable material shall be monitored at least twice per year at priority locations and at minimum of two (2) stations. The amount of collected material shall be estimated in cubic yards. a) One (1) station should be located in the North Diversion (only applicable to COA and AMAFCA).	Part III.A.3 - AMAFCA will continue to monitor floatable material and the amount collected in participation with other MS4s. AMAFCA will monitor floatable material in the settling area of the NDC and at the I-25/SDC Baffle Chute Stormwater Quality Facility. Note the NDC settling area is within the AMAFCA easement on Sandia Pueblo property, but that is where AMAFCA has monitored floatables for many years. The requirements in this Permit section will be completed in conjunction with the requirements in TABLE 7: Control of Floatables Discharges - Part I.D.5.f. AMAFCA monitors and tracks collection of floatables at all AMAFCA facilities.	• AMAFCA will continue to monitor floatable material and estimate the amount collected at least twice per year at a minimum of 2 stations. • AMAFCA will maintain its drying stations, locations where floatable material, sediment and debris is hauled, separated, and properly disposed of. These stations help AMAFCA meet the requirements for this activity.	Update as necessary for SWMP.

NOI Section	ID	Permit Activity Description	Plan SWMP Rev. 8 - July 1, 2025	Measurable Goal SWMP Rev. 8 - July 1, 2025	Permit Required Implementation Schedule
	157	**Industrial and High Risk Runoff Monitoring - Part III.A.4**			
4	158	The permittees shall monitor stormwater discharges from Type 1 and 2 industrial facilities which discharge to the MS4 provided such facilities are located in their jurisdiction. (Note: if no such facilities are in the permittee's jurisdiction, the permittee must certify that this program element does not apply).	Activity removed from AMAFCA's SWMP (Rev. 0, December 1, 2015). AMAFCA certifies with submittal of this SWMP that no such industrial activities are located in AMAFCA's jurisdiction and this program element does not apply. This was submitted to EPA in AMAFCA's NOI and accepted.	N/A	N/A

APPENDICES

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202 - 2733

APR 0 9 2015

CERTIFIED MAIL: RETURN RECEIPT REQUESTED (See Attachment 1)

Addressees: Middle Rio Grande Watershed Municipal Separate Storm Sewer Systems Operators
(See Attachment 1)

Re: NPDES Permit No. NMR04A000
Notice of Minor Permit Modification

Dear (See Attachment 1):

Following regulations listed at 40 CFR 122.63(a) and CFR 122.63 (c), the following minor permit modifications are made to the NPDES Permit No. NMR04A000:

- To allow more time to review and approve NOIs, and remove schedule conflicts, certain interim compliance dates in the compliance schedules included in Activity Tables 1.a through 10, except Table 1.c entitled "Measurable Goals of Anoxic and Hypoxia Levels Measured by Permit Year" have been extended. The corrected pages are enclosed in Attachment 2. The new compliance schedules dates are in bold and underlined text.

- The point of contact and address for the Pueblo of Isleta in Part III, Part IV, and Appendix C has been updated. The updated page(s) are enclosed in Attachment 3.

The version of the permit on the EPA R6 website is also being updated. See http://epa.gov/region6/water/npdes/sw/ms4/index.htm

If you have any questions on any aspect of these minor permit modifications, please feel free to contact the permit writer, Nelly Smith, by telephone at:214-665-7109 or via E-mail at Nelly.smith@epa.gov.

Sincerely yours,

for Stacey B. Dwyer, P.E.
Associate Director
NPDES Permits & TMDLs Branch

Enclosures

cc w/Enclosure: New Mexico Environment Department

Attachment 1

Attachment 1

MS4	Address	City	State	Zip Code	Contact Name	Return Receipt Requested
City of Albuquerque	Dept. Municipal Development P.O. Box 1293	Albuquerque	NM	87103	Kevin Daggett	7014015000002452 6650
AMAFCA	2600 Prospect Ave NE	Albuquerque	NM	87107	Jerry Lovato	7014015000002452 6643
NMDOT District 3	7500 Pan American Blvd	Albuquerque	NM	87199	Timothy R, Trujillo	7014015000002452 6636
University of New Mexico	1801 Tucker St NE	Albuquerque	NM	87131	Chemanji (Che) Shu-Nyamboli	7014015000002452 6629
SSCAFCA	1041 Commercial Dr SE	Rio Rancho	NM	87124	Chuck Thomas	7014015000002452 6612
Town of Bernalillo	829 Camino del Pueblo	Bernalillo	NM	87004	Maria Rinaldi	7014015000002452 6605
Sandoval County	2708 Iris NE	Rio Rancho	NM	87144	Fred Marquez	7014015000002452 6599
Village of Corrales	4324 Corrales Rd	Corrales	NM	87048	Mayor Jack Torres	7014015000002452 6582
Los Ranchos de Albuquerque	6718 Rio Grande Blvd NW	Los Ranchos de Albuquerque	NM	87107	Tim McDonough	7014015000002452 6575
City of Rio Rancho	3200 Civic Center Circle NE Ste 200	Rio Rancho	NM	87144	Xavier Pettes	7014015000002452 6568
Bernalillo County	2400 Broadway SE, Bldg N	Albuquerque	NM	87102	Anita Stead	7014015000002452 6551

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Kirtland AFB	377 ABW/CC 200 Wyoming Blvd SE	Kirtland AFB	NM	87117	Chris Segura	7014015000002452 6544
EXPO	P.O. Box 8456	Albuquerque	NM	87198	John C. Jaramillo	7014015000002452 6537
Sandia Laboratories, DOE	P.O. Box 5400, KAFB	Albuquerque	NM		Karen Agogino	7014015000002452 6520
ESCAFCA	829 Camino del Pueblo, Bernalillo, NM	Bernalillo	NM		Jack Torres	7014015000002452 6513
						7014015000002452 6506
Pueblo of Sandia	481 Sandia Loop	Bernalillo	NM	87004	Scott Bulgrin	7014015000002452 6490
Pueblo of Isleta	PO Box 1270	Isleta	NM	87022	Ramona Montoya	7014015000002453 0657

Attachment 2

schedules described in Table 1.a of Part I.C.2.(iii). The annual report must include information on compliance with this section, including results of any sampling conducted by the permittee.

Note: Probable pollutant sources identified by permittees should be submitted to NMED on the following form: ftp://ftp.nmenv.state.nm.us/www/swqb/Surveys/PublicProbableSourceIDSurvey.pdf

(c) Impairment for Nutrients: Where the impairment is for nutrients (e.g., nitrogen or phosphorus), the permittee shall identify potential significant sources and develop and implement targeted BMPs to control nutrients from potential sources. The permittee must, at minimum comply with the activities and schedules described in Table 1.b of Part I.C,2, (iii). The annual report must include information on compliance with this section, including results of any sampling conducted by the permittee.

(d) Impairment for Dissolved Oxygen: See Endangered Species Act (ESA) Requirements in Part I.C.3. These program elements may be coordinated with the monitoring required in Part III.A.

(iii) Program Development and Implementation Schedules: Where the impairment is for nutrient constituent (e.g., nitrogen or phosphorus) or bacteria, the permittee must at minimum comply with the activities and schedules in Table 1.a and Table 1.b.

Table 1.a. Pre-TMDL Bacteria Program Development and Implementation Schedules

Activity	Class Permittee				
	A Phase I MS4s	**B Phase II MS4s (2000 Census)**	**C New Phase II MS4s (2010 Census **)**	**D MS4s within Indian Lands**	**Cooperative (*) Any Permittee with cooperative programs**
Identify potential significant sources of the pollutant of concern entering your MS4	**Ten (10)** months from effective date of permit	**Ten (10)** months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Sixteen (16) months from effective date of permit
Develop (or modify an existing program ***) and implement a public education program to reduce the discharge of bacteria in municipal storm water contributed by (if applicable) by pets, recreational and exhibition livestock, and zoos.	**Twelve (12)** months from effective date of permit	**Twelve (12)** months from effective date of permit	**Fourteen (14) months** from effective date of permit	**Fourteen (14) months** from effective date of permit	Sixteen (16) months from effective date of permit
Develop (or modify an existing program ***) and implement a program to reduce the discharge of bacteria in municipal storm water contributed by areas within your MS4 served by on-site wastewater treatment systems.	**Fourteen (14) months** from effective date of permit	**Fourteen (14) moths** from effective date of permit	Sixteen (16) months from effective date of permit	Sixteen (16) months from effective date of permit	Eighteen (18) months from effective date of permit
Review results to date from the Illicit Discharge Detection and Elimination program (see Part I.D.5.e) and modify as necessary to prioritize the detection and elimination of discharges contributing bacteria to the MS4	**Fourteen (14) months** from effective date of permit	**Fourteen (14) months** from effective date of permit	Sixteen (16) months from effective date of permit	Sixteen (16) months from effective date of permit	Eighteen (18) months from effective date of permit

Develop (or modify an existing program ***) and implement a program to reduce the discharge of bacteria in municipal storm water contributed by other significant source identified in the Illicit Discharge Detection and Elimination program (see Part I.D.5.e)	**Sixteen (16) months** from effective date of permit	**Sixteen (16)** months from effective date of permit	**Eighteen (18)** months from effective date of permit	**Eighteen (18)** months from effective date of permit	**Twenty (20)** months from effective date of permit
Include in the Annual Reports progress on program implementation and reducing the bacteria and updates their measurable goals as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs
(**) or MS4s designated by the Director
(***) Permittees previously covered under permit NMS000101 or NMR040000
Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

Table 1.b. Pre-TMDL Nutrient Program Development and Implementation Schedules

Activity	**Class Permittee**				
	A Phase I MS4s	**B Phase II MS4s (2000 Census)**	**C New Phase II MS4s (2010 Census **)**	**D MS4s within Indian Lands**	**Cooperative (*) Any Permittee with cooperative programs**
Identify potential significant sources of the pollutant of concern entering your MS4	**Ten (10)** months from effective date of permit	**Ten (10)** months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Sixteen (16) months from effective date of permit
Develop (or modify an existing program ***) and implement a public education program to reduce the discharge of pollutant of concern in municipal storm water contributed by residential and commercial use of fertilizer	**Ten (10)** months from effective date of permit	**Ten (10)** months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Sixteen (16) months from effective date of permit
Develop (or modify an existing program ***) and implement a program to reduce the discharge of the pollutant of concern in municipal storm water contributed by fertilizer use at municipal operations (e.g., parks, roadways, municipal facilities)	One (1) year from effective date of permit	One (1) year from effective date of permit	Sixteen (16) months from effective date of permit	Sixteen (16) months from effective date of permit	Eighteen (18) months from effective date of permit

Develop (or modify an existing program ***) and implement a program to reduce the discharge of the pollutant of concern in municipal storm water contributed by municipal and private golf courses within your jurisdiction	One (1) year from effective date of permit	One (1)year from effective date of permit	Sixteen (16) months from effective date of permit	Sixteen (16) months from effective date of permit	Eighteen (18) months from effective date of permit
Develop (or modify an existing program ***) and implement a program to reduce the discharge of the pollutant of concern in municipal storm water contributed by other significant source identified in the Illicit Discharge Detection and Elimination program (see Part I.D.5.e)	One (1) year from effective date of permit	One (1) year from effective date of permit	Sixteen (16) months from effective date of permit	Sixteen (16) months from effective date of permit	Eighteen (18) months from effective date of permit
Include in the Annual Reports progress on program implementation and reducing the nutrient pollutant of concern and updates their measurable goals	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs
(**) or MS4s designated by the Director
(***) Permittees previously covered under permit NMS000101 or NMR040000
Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

These program elements may be coordinated with the monitoring required in Part III.A.

3. **Endangered Species Act (ESA) Requirements**. Consistent with U.S. FWS Biological Opinion dated August 21, 2014 to ensure actions required by this permit are not likely to jeopardize the continued existence of any currently listed as endangered or threatened species or adversely affect its critical habitat, permittees shall meet the following requirements and include them in the SWMP:

   a. Dissolved Oxygen Strategy in the Receiving Waters of the Rio Grande:

      (i) The permittees must identify (or continue identifying if previously covered under permit NMS000101) structural controls, natural or man-made topographical and geographical formations, MS4 operations, or oxygen demanding pollutants contributing to reduced dissolved oxygen in the receiving waters of the Rio Grande. The permittees shall implement controls, and update/revise as necessary, to eliminate discharge of pollutants at levels that cause or contribute to exceedances of applicable water quality standards for dissolved oxygen in waters of the Rio Grande. The permittees shall submit a summary of findings and a summary of activities undertaken under Part I.C.3.a.(i) with each Annual Report. The SWMP submitted with the first and fourth annual reports must include a detailed description of controls implemented (or/and proposed control to be implemented) along with corresponding measurable goals. (Applicable to all permittees).

      (ii) As required in Part I.C.1.d, the COA and AMAFCA shall revise the May 1, 2012 Strategy for dissolved oxygen to address dissolved oxygen at the North Diversion Channel Embayment and/or other MS4 locations. The permittees shall submit the revised strategy to FWS and EPA for approval within a year of permit issuance and progress reports with the subsequent Annual Reports (see also Part I.C.1.d.(iv)). The permittees shall ensure that actions to reduce pollutants or remedial activities selected for the North Diversion Channel Embayment and its watershed are implemented such that there is a reduction in

Table 2. Construction Site Stormwater Runoff Control - Program Development and Implementation Schedules

Activity	Permittee Class				
	A Phase I MS4s	**B** Phase II MS4s (2000 Census)	**C** New Phase II MS4s (2010 Census **)	**D** MS4s within Indian Lands	**Cooperative (*)** Any Permittee with cooperative programs
Development of an ordinance or other regulatory mechanism as required in Part I.D.5.a.(ii)(a)	**Ten (10)** months from effective date of permit	**Ten (10)** months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Eighteen (18) months from effective date of the permit
Develop requirements and procedures as required in Part I.D.5.a.(ii)(b) through in Part I.D.5.a.(ii)(h)	**Ten (10)** months from effective date of permit	**Thirteen (13)** months from effective date of permit	**Sixteen (16) months** from effective date of permit	**Sixteen (16) months** from effective date of permit	Eighteen (18) months from effective date of permit
Annually conduct site inspections of 100 percent of all construction projects cumulatively disturbing one (1) or more acres as required in Part I.D.5.a.(iii)	**Ten (10)** months from effective date of permit	Start **Thirteen (13)** months from effective date of permit and annually thereafter	Start **Sixteen (16) months** from effective date of permit and annually thereafter	Start eighteen (18) months from effective date of permit and thereafter	Start two (2) years from effective date of permit and thereafter
Coordinate with all departments and boards with jurisdiction over the planning, review, permitting, or approval of public and private construction projects/activities within the permit area as required in Part I.D.5.a.(iv)	**Ten (10)** months from effective date of permit	**Ten (10)** months from effective date of permit	**Twelve (12)** months from effective date of permit	**Twelve (12)** months from effective date of permit	**Fourteen (14) months** from effective date of permit
Evaluation of GI/LID/Sustainable practices in site plan reviews as required in Part I.D.5.a.(v)	**Ten (10)** months from effective date of permit	**Ten (10)** months from effective date of permit	**Twelve (12)** months from effective date of permit	**Twelve (12)** months from effective date of permit	**Fourteen (14) months** from effective date of permit
Update the SWMP document and annual report as required in Part I.D.5.a.(vi) and in Part I.D.5.a.(vii)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary
Enhance the program to include program elements in Part I.D.5.a.(viii) through Part I.D.5.a.(x)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(xiii) The permittee may incorporate the following elements in the Post-Construction Stormwater Management in New Development and Redevelopment program required in Part I.D.5.b.(ii)(b):

(a) Provide requirements and standards to direct growth to identified areas to protect environmentally and ecologically sensitive areas such as floodplains and/or other areas with endangered species and historic properties concerns;

(b) Include requirements to maintain and/or increase open space/buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation; and

(c) Encourage infill development in higher density urban areas, and areas with existing storm sewer infrastructure.

Table 3. Post-Construction Stormwater Management in New Development and Redevelopment - Program Development and Implementation Schedules

Activity	Permittee Class				
	A Phase I MS4s	**B** Phase II MS4s (2000 Census)	**C** New Phase II MS4s (2010 Census **)	**D** MS4s within Indian Lands	**Cooperative (*)** Any Permittee with cooperative programs
Development of strategies as required in Part I.D.5.b.(ii).(a)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	Twelve (12) months from effective date of permit	Twelve (12) months from effective date of permit	Fourteen (14) months from effective date of permit
Development of an ordinance or other regulatory mechanism as required in Part I.D.5.b.(ii).(b)	Twenty (24) months from effective date of permit	Thirty (30) months from effective date of permit	Thirty six (36) months from effective date of permit	Thirty six (36) months from effective date of permit	Thirty six (36) months from effective date of permit
Implementation and enforcement, via the ordinance or other regulatory mechanism, of site design standards as required in Part I.D.5.b.(ii).(b)	Within thirsty six (36) months from effective date of the permit	Within forty two (42) months from the effective date of the permit	Within forty eight (48) months from effective date of the permit	Within forty eight (48) months from effective date of the permit	Within forty eight (48) months from effective date of the permit
Ensure appropriate implementation of structural controls as required in Part I.D.5.b.(ii).(c) and Part I.D.5.b.(ii).(d)	Ten (10) months from effective date of permit	One (1) year from effective date of permit	Two (2) years from effective date of permit	Two (2) years from effective date of permit	Thirty (30) months from effective date of permit
Develop procedures as required in Part I.D.5.b.(ii).(e), Part I.D.5.b.(ii).(f), Part I.D.5.b.(ii).(g), and Part I.D.5.b.(ii).(h)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Eighteen (18) months from effective date of permit

Coordinate internally with all departments and boards with jurisdiction over the planning, review, permitting, or approval of public and private construction projects/activities within the permit area as required in Part I.D.5.b.(iii)	**Ten (10)** months from effective date of permit	**Ten (10)** months from effective date of permit	**Eleven (11)** months from effective date of permit	**Eleven (11)** months from effective date of permit	One (1) year from effective date of permit
As required in Part I.D.5.b.(iv), the permittee must assess all existing codes, ordinances, planning documents and other applicable regulations, for impediments to the use of GI/LID/Sustainable practices	**Ten (10)** months from effective date of permit	One (1) year from effective date of permit	Eighteen (18) months from effective date of permit	Eighteen (18) months from effective date of permit	Two (2) years from effective date of permit
As required in Part I.D.5.b.(iv), develop and submit a report of the assessment findings on GI/LID/Sustainable practices.	**Eleven (11)** months from effective date of permit	Eighteen (18) months from effective date of permit	Two (2) years from effective date of permit	Two (2) years from effective date of permit	Twenty seven (27) months from effective date of permit
Estimation of the number of acres of IA and DCIA as required in Part I.D.5.b.(vi)	**Ten (10)** months from effective date of permit	One (1) year from effective date of permit	Two (2) years from effective date of permit	Two (2) years from effective date of permit	Thirty (30) months from effective date of permit
Inventory and priority ranking as required in section in Part I.D.5.b.(vii)	Within fifteen (15) months from effective date of the permit	Within **twenty four** (24) months from effective date of the permit	Within **thirty six** (36) months from effective date of the permit	Within **thirty six** (36) months from effective date of the permit	Within **forty two** (42) months from effective date of the permit
Incorporate watershed protection elements as required in Part I.D.5.b.(viii)	**Ten (10)** months from effective date of permit	One (1) year from effective date of permit	Two (2) years from effective date of permit	Two (2) years from effective date of permit	Thirty (30) months from effective date of permit
Update the SWMP document and annual report as required in Part I.D.5.b.(ix) and Part I.D.5.b.(x).	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary
Enhance the program to include program elements in Part I.D.5.b.(xi) and Part I.D.5.b.(xii)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs.
(**) or MS4s designated by the Director
Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

(iv) The permittee must include in the SWMP a description of the mechanism(s) utilized to comply with each of the elements required in Part I.D.5.c.(i) throughout Part I.D.5.c.(iii) and its corresponding measurable goal.

(v) The permittee shall assess the overall success of the program, and document the program effectiveness in the annual report.

Table 4. Pollution Prevention/Good Housekeeping for Municipal/Co-permittee Operations - Program Development and Implementation Schedules

Activity	Permittee Class				
	A Phase I MS4s	**B** Phase II MS4s (2000 Census)	**C** New Phase II MS4s (2010 Census **)	**D** MS4s within Indian Lands	**Cooperative (*)** Any Permittee with cooperative programs
-Develop or update the Pollution Prevention/Good House Keeping program to include the elements in Part I.D.5.c.(i)	Ten (10) months from effective date of the permit	Twelve (12) months from effective date of the permit	Fourteen (14) months from effective date of the permit	Fourteen (14) months from effective date of the permit	Eighteen (18) months from effective date of the permit
-Enhance the program to include the elements in Part I.D.5.c.(ii)	Ten (10) months from effective date of the permit	One (1) year from effective date of the permit	Two (2) years from effective date of the permit	Two (2) years from effective date of the permit	Thirty (30) months from effective date of the permit
-Develop or update a list and a map of industrial facilities owned or operated by the permittee as required in Part I.D.5.c.(iii)	Ten (10) months from effective date of the permit	Eleven (11) months from effective date of the permit	One (1) year from effective date of the permit	One (1) year from effective date of the permit	Eighteen (18) months from effective date of the permit
Update the SWMP document and annual report as required in Part I.D.5.c.(iv) and Part I.D.5.c.(v)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs
(**) or MS4s designated by the Director
Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

d. Industrial and High Risk Runoff (Applicable only to Class A permittees)

(i) The permittee must control through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from sites of industrial activity as defined in 40 CFR 122.26(b)(14)(i)-(ix) and (xi). If no such industrial activities are in a permittees jurisdiction, that permittee may certify that this program element does not apply.

(ii) The permittee must continue implementation and enforcement of the Industrial and High Risk Runoff program, assess the overall success of the program, and document both direct and indirect measurements of program effectiveness in the annual report. The program shall include:

(a) A description of a program to identify, monitor, and control pollutants in stormwater discharges to the MS4 from municipal landfills; other treatment, storage, or disposal facilities for municipal waste (e.g. transfer stations, incinerators, etc.); hazardous waste treatment, storage, disposal and recovery facilities; facilities that are subject to EPCRA Title III, Section 313; and any other industrial or commercial discharge the permittee(s) determines are contributing a substantial pollutant loading to the

Table 5: Industrial and High Risk Runoff - Program Development and Implementation Schedules:

Activity	Permittee Class	
	A **Phase I MS4s**	**Cooperative (*)** **Any Permittee with cooperative programs**
Ordinance (or other control method) as required in Part I.D.5.d.(i)	Ten (10) months from effective date of the permit	Twelve (12) months from effective date of the permit
Continue implementation and enforcement of the Industrial and High Risk Runoff program, assess the overall success of the program, and document both direct and indirect measurements of program effectiveness in the annual report as required in Part I.D.5.d.(ii)	Ten (10) months from effective date of the permit	Twelve (12) months from effective date of the permit
Meet the monitoring requirements in Part I.D.5.d.(iii)	Ten (10) months from effective date of the permit	Twelve (12) months from effective date of the permit
Include requirements in Part I.D.5.d.(iv)	Ten (10) months from permit effective date of the permit	Twelve (12) months from effective date of the permit
Update the SWMP document and annual report as required in Part I.D.5.d.(v) and Part I.D.5.d.(vi)	Update as necessary	Update as necessary
Enhance the program to include requirements in Part I.D.5.d.(vii)	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs. Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

e. Illicit Discharges and Improper Disposal

(i) The permittee shall develop, revise, implement, and enforce a program to detect and eliminate illicit discharges (as defined at 40 CFR 122.26(b)(2)) entering the MS4. **Permittees previously covered under NMS000101 or NMR040000 must continue existing programs while updating those programs, as necessary, to comply with the requirements of this permit.** The permittee must:

(a) Develop, if not already completed, a storm sewer system map, showing the names and locations of all outfalls as well as the names and locations of all waters of the United States that receive discharges from those outfalls. Identify all discharges points into major drainage channels draining more than twenty (20) percent of the MS4 area;

(b) To the extent allowable under State, Tribal or local law, effectively prohibit, through ordinance or other regulatory mechanism, non-stormwater discharges into the MS4, and implement appropriate enforcement procedures and actions;

(c) Develop and implement a plan to detect and address non-stormwater discharges, including illegal dumpling, to the MS4. The permittee must include the following elements in the plan:

A. Procedures for locating priority areas likely to have illicit discharges including field test for selected pollutant indicators (ammonia, boron, chlorine, color, conductivity, detergents, *E. coli*, enterococci, total coliform, fluoride, hardness, pH, potassium, conductivity, surfactants), and visually screening outfalls during dry weather;

(d) If participating in a cooperative program with other MS4s, required detection program frequencies may be based on the combined jurisdictional area rather than individual jurisdictional areas and may use assessment areas crossing jurisdictional boundaries to reduce total number of screening locations (e.g., a shared single screening location that would provide information on more than one jurisdiction); and

(e) After screening a non-high priority area once, adopt an "in response to complaints only" IDDE for that area provided there are citizen complaints on no more than two (2) separate events within a twelve (12) month period.

(f) Enhance the program to utilize procedures and methodologies consistent with those described in "Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments."

Table 6. Illicit Discharges and Improper Disposal - Program Development and Implementation Schedules

Activity	Permittee Class				
	A Phase I MS4s	**B** Phase II MS4s (2000 Census)	**C** New Phase II MS4s (2010 Census ***)	**D** MS4s within Indian Lands	**Cooperative (*)** Any Permittee with cooperative programs
Mapping as required in Part I.D.5.e.(i)(a)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	Eleven (11) months from effective date of permit	Eleven (11) months from effective date of permit	Fourteen (14) months from effective date of permit
Ordinance (or other control method) as required in Part I.D.5.e.(i)(b)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	Two (2) years from effective date of permit	Two (2) years from effective date of permit	Thirty (30) months from effective date of permit
Develop and implement a IDDE plan as required in Part I.D.5.e.(i)(c)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	Two (2) years from effective date of permit	Two (2) years from effective date of permit	Thirty (30) months from effective date of permit
Develop an education program as required in Part I.D.5.e.(i)(d)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Eighteen (18) months from effective date of permit
Establish a hotline as required in Part I.D.5.e.(i)(e)	Update as necessary	Ten (10) months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Eighteen (18) months from effective date of permit
Investigate suspected significant/severe illicit discharges as required in Part I.D.5.e.(i)(f)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Eighteen (18) months from effective date of permit
Review complaint records and develop a targeted source reduction program as required in Part I.D.5.e.(i)(g)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	N/A	N/A	One (1) year from effective date of permit

Screening of system as required in Part I.D.5.e.(iii) as follows: a.) High priority areas**	1 / year	1 / year	1 / year	1 / year	1 / year
b.) Whole system	-Screen 20% of the MS4 per year	- Screen 20% of the MS4 per year	-Years 1 – 2: develop procedures as required in Part I.D.5.e.(i)(c) -Year 3: screen 30% of the MS4 -Year 4: screen 20% of the MS4 -Year 5: screen 50% of the MS4	-Years 1 – 2: develop procedures as required Part I.D.5.e.(i)(c) -Year 3: screen 30% of the MS4 -Year 4: screen 20% of the MS4 -Year 5: screen 50% of the MS4	-Years 1 – 3: develop procedures as require in Part I.D.5.e.(i)(c) -Year 4: screen 30% of the MS4 -Year 5: screen 70% of the MS4
Develop, update, and implement a Waste Collection Program as required in Part I.D.5.e.(iv)	**Ten (10)** months from effective date of permit	Eighteen (18) months from effective date of permit	Two (2) years from effective date of permit	Two (2) years from effective date of permit	Thirty (30) months from effective date of permit
Develop, update and implement a Spill Prevention and Response program to prevent, contain, and respond to spills that may discharge into the MS4 as required in Part I.D.5.e.(v)	**Ten (10)** months from effective date of permit	**Ten (10)** months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Eighteen (18) months from effective date of permit
Update the SWMP document and annual report as required in Part I.D.5.e.(iii), Part I.D.5.e.(vi), and Part I.D.5.e.(vii).	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary
Enhance the program to include requirements in Part I.D.5.e.(ix)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs.
(**) High priority areas include any area where there is ongoing evidence of illicit discharges or dumpling, or where there are citizen complaints on more than five (5) separate events within twelve (12) months
(***) or MS4s designated by the Director
Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

f. Control of Floatables Discharges

(i) The permittee must develop, update, and implement a program to address and control floatables in discharges into the MS4. The floatables control program shall include source controls and, where necessary, structural controls. **Permittees previously covered under NMS000101 or NMR040000 must continue existing programs while updating those programs, as necessary, to comply with the requirements of this permit.** The following elements must be included in the program:

(a) Develop a schedule for implementation of the program to control floatables in discharges into the MS4 (Note: AMAFCA and the City of Albuquerque should update the schedule according to the findings of the 2005 AMAFCA/COA Floatable and Gross Pollutant Study and other studies); and

(b) Estimate the annual volume of floatables and trash removed from each control facility and characterize the floatable type.

(ii) The permittee must include in the SWMP a description of the mechanism(s) utilized to comply with each of the elements required in Part I.D.5.f.(i).

(iii) The permittee shall assess the overall success of the program, and document the program effectiveness in the annual report.

Table 7. Control of Floatables Discharges - Program Development and Implementation Schedules

Activity	Permittee Class				
	A **Phase I MS4s**	**B** **Phase II MS4s (2000 Census)**	**C** **New Phase II MS4s (2010 Census **)**	**D** **MS4s within Indian Lands**	**Cooperative (*)** **Any Permittee with cooperative programs**
- Develop a schedule to implement the program as required in Part I.D.5.f.(i)(a)	Ten (10) months from the effective date of the permit	Ten (10) months from the effective date of the permit	One (1) year from the effective date of the permit	One (1) year from the effective date of the permit	Eighteen (18) months from the effective date of the permit
-Estimate the annual volume of floatables and trash removed from each control facility and characterize the floatable type as required in Part I.D.5.f.(i)(b)	Ten (10) months from the effective date of the permit	One (1) year from the effective date of the permit	Two (2) years from the effective date of the permit	Two (2) years from the effective dae of the permit	Thirty (30) months from the effective date of the permit
Update the SWMP document and annual report as required in Part I.D.5.f.(ii) and Part I.D.5.f.(iii).	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs.
(**) or MS4s designated by the Director
Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

g. Public Education and Outreach on Stormwater Impacts

(i) The permittee shall, individually or cooperatively, develop, revise, implement, and maintain a comprehensive stormwater program to educate the community, employees, businesses, and the general public of hazards associated with the illegal discharges and improper disposal of waste and about the impact that stormwater discharges on local waterways, as well as the steps that the public can take to reduce pollutants in stormwater. **Permittees previously covered under NMS000101 and NMR040000 must continue existing programs while updating those programs, as necessary, to comply with the requirements of this permit.**

(ii) The permittee must implement a public education program to distribute educational knowledge to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff. The permittee must:

Table 8. Public Education and Outreach on Stormwater Impacts - Program Development and Implementation Schedules

Activity	Permittee Class				
	A Phase I MS4s	**B** Phase II MS4s (2000 Census)	**C** New Phase II MS4s (2010 Census **)	**D** MS4s within Indian Lands	**Cooperative (*)** Any Permittee with cooperative programs
Develop, revise, implement, and maintain an education and outreach program as required in Part I.D.5.g.(i) and Part I.D.5.g.(ii)	Ten (10) months from the effective date of the permit	Eleven (11) months from the effective date of the permit	Twelve (12) months from effective date of the permit	Twelve (12) months from effective date of the permit	Fourteen (14) months from effective date of the permit
Update the SWMP document and annual report as required in Part I.D.5.g.(iii) and Part I.D.5.g.(iv)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary
Enhance the program to include requirements in Part I.D.5.g.(v) through Part I.D.5.g.(viii)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs.
(**) or MS4s designated by the Director
Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

h. Public Involvement and Participation

(i) The permittee must provide local public notice of and make available for public review a copy of the complete NOI and attachments (see Part I.B.2). Local public notice may be made by newspaper notice, notice at a council meeting, posting on the internet, or other method consistent with state/tribal/local public notice requirements.

The permittee must consider all public comments received during the public notice period and modify the NOI, or include a schedule to modify the SWMP, as necessary, or as required by the Director modify the NOI or/and SWMP in response to such comments. The Permittees must include in the NOI any unresolved public comments and the MS4's response to these comments. Responses provided by the MS4 will be considered as part of EPA's decision-making process. See also Appendix E Providing Comments or Requesting a Public Hearing on an Operator's NOI.

(ii) The permittee shall develop, revise, implement and maintain a plan to encourage public involvement and provide opportunities for participation in the review, modification and implementation of the SWMP; develop and implement a process by which public comments to the plan are received and reviewed by the person(s) responsible for the SWMP; and, make the SWMP available to the public and to the operator of any MS4 or Tribal authority receiving discharges from the MS4. **Permittee previously covered under NMS000101 or NMR040000 must continue existing public involvement and participation programs while updating those programs, as necessary, to comply with the requirements of this permit.**

system, using phones and social media); Revegetation Programs; Storm Drain Stenciling Programs; Stream cleanup and Monitoring program/events.

Table 9. Public Involvement and Participation - *Program Development and Implementation Schedules*

Activity	Permittee Class				
	A Phase I MS4s	**B Phase II MS4s (2000 Census)**	**C New Phase II MS4s (2010 Census **)**	**D MS4s within Indian Lands**	**Cooperative (*) Any Permittee with cooperative programs**
Develop (or update), implement, and maintain a public involvement and participation plan as required in Part I.D.5.h.(ii) and Part I.D.5.h.(iii)	**Ten (10)** months from effective date of the permit	**Ten (10)** months from effective date of the permit	**Eleven (11)** months from effective date of the permit	**Eleven (11)** months from effective date of the permit	One (1) year from effective date of the permit
Comply with State, Tribal, and local notice requirements when implementing a Public Involvement and Participation Program as required in Part I.D.5.h.(iv)	**Ten (10)** months from effective date of the permit	**Eleven (11)** months from effective date of the permit	**Twelve (12)** months from effective date of the permit	**Twelve (12)** months from effective date of the permit	**Fourteen (14) months** from effective date of the permit
Include elements as required in Part I.D.5.h.(v)	**Ten (10)** months from effective date of the permit	**Eleven (11)** months from effective date of the permit	One (1) year from effective date of the permit	One (1) year from effective date of the permit	Eighteen (18) months from effective date of the permit
Update the SWMP document and annual report as required in Part I.D.5.h.(vi), Part I.D.5.h.(vii), and Part I.D.5.h.(viii)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary
Enhance the program to include requirements in Part I.D.5.h.(ix)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs.
(**) or MS4s designated by the Director
Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

6. **Stormwater Management Program Review and Modification**.

a. Program Review. Permittee shall participate in an annual review of its SWMP in conjunction with preparation of the annual report required in Part III.B. Results of the review shall be discussed in the annual report and shall include an assessment of:

(i) SWMP implementation, progress in achieving measurable goals, and compliance with program elements and other permit conditions;

(ii) the effectiveness of its SWMP, and any necessary modifications, in complying with the permit, including requirements to control the discharge of pollutants, and comply with water quality standards and any applicable approved TMDLs; and the adequacy of staff, funding levels, equipment, and support capabilities to fully implement the SWMP and comply with permit conditions.

h. Response to monitoring results: The monitoring program must include a contingency plan for collecting additional monitoring data within the MS4 or at additional appropriate instream locations should monitoring results indicate that MS4 discharges may be contributing to instream exceedances of WQS. The purpose of this additional monitoring effort would be to identify sources of elevated pollutant loadings so they could be addressed by the SWMP.

Table 10. Wet Weather Monitoring Program Implementation Schedules:

Activity	Permittee Class				
	A Phase I MS4s	**B** Phase II MS4s (2000 Census)	**C** New Phase II MS4s (2010 Census **)	**D** MS4s within Indian Lands	**Cooperative (*)** Any Permittee with cooperative programs
Submit wet weather monitoring preference to EPA (i.e., individual monitoring program vs. cooperative monitoring program) with NOI submittals	NOI submittal Deadline (see Table 1)	NOI submittal Deadline (see Table 1)	NOI submittal Deadline (see Table 1)	NOI submittal Deadline (see Table 1)	NOI submittal Deadline (see Table 1)
Submit a detailed description of the monitoring scheme to EPA and NMED for approval. The monitoring scheme should include: a list of pollutants; a description of monitoring sites with an explanation of why those sites were selected; and a detailed map of all proposed monitoring sites	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	Eleven (11) months from effective date of permit	Eleven (11) months from effective date of permit	Twelve (12) months from effective date of permit
Submit certification that all wet weather monitoring sites are operational and begin sampling	Eleven (11) months from effective date of permit	Eleven (11) months from effective date of permit	Thirteen (13) months from effective date of permit	Thirteen (13) months from effective date of permit	Fourteen (14) months from effective date of permit
Update SWMP document and submit annual reports	Annually	Annually	Annually	Annually	Annually

(**) or MS4s designated by the Director

Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

2. **Dry Weather Discharge Screening of MS4**: Each permittee shall identify, investigate, and address areas within its jurisdiction that may be contributing excessive levels of pollutants to the Municipal Separate Storm Sewer System as a result of dry weather discharges (i.e., discharges from separate storm sewers that occur without the direct influence of runoff from storm events, e.g. illicit discharges, allowable non-stormwater, groundwater infiltration, etc.). Due to the arid and semi-arid conditions of the area, the dry weather discharges screening program may be carried out during both wet season (July 1 through October 31) and dry Season (November 1 through June 30). Results of the assessment

Attachment 3

Attachment 3

Page 9 of Part III.D

Pueblo of Isleta
Attn: Ramona M. Montoya, Environment Division Manager
PO Box 1270
Isleta NM 87022

Page 6 of Part IV.U

Pueblo of Isleta
Department of Cultural and Historic Preservation
Attn: Daniel Waseta, Director
PO Box 1270
Isleta NM 87022

Appendix C

Tribal Historic Preservation Officers (THPO)
Pueblo of Isleta
Department of Cultural and Historic Preservation
Attn: Dr. Henry Walt, THPO
PO Box 1270
Isleta NM 87022

New Mexico Environment Department
Attn: Bruce Yurdin, Program Manager
Surface Water Quality Bureau
Point Source Regulation Section
P.O. Box 5469
Santa Fe, New Mexico 87502

Pueblo of Sandia Environment Department
Attn: Scott Bulgrin, Water Quality Manager
481 Sandia Loop
Bernalillo, NM 87004
(Note: Only those MS4s with discharges upstream of or to waters under the jurisdictional of the Pueblo of Sandia: AMAFCA, Sandoval County, Village of Corrales, City of Rio Rancho, Town of Bernalillo, SSCAFCA, and ESCAFCA)

Pueblo of Isleta
Attn: Ramona M. Montoya, Environment Division Manager
P.O. Box 1270
Isleta NM 87022

(Notes: Only the City of Albuquerque, Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA), New Mexico Department of Transportation (NMDOT) District 3, KAFB (Kirtland Air Force Base), Sandia Labs (DOE), and Bernalillo County). All parties submitting an NOI or NOT shall notify the Pueblo of Isleta in writing that a NOI or NOT has been submitted to EPA

Water Resources Division Manager
Pueblo of Santa Ana
2 Dove Road
Santa Ana Pueblo, New Mexico 87004
(Note: Only those MS4s with discharges upstream of or to waters under the jurisdictional of the Pueblo of Santa Ana)

Bataan Memorial Building
407 Galisteo Street, Ste. 236
Santa Fe, New Mexico 87501

Pueblo of Sandia Environment Department
Attn: Frank Chaves, Environment Director
481 Sandia Loop
Bernalillo, New Mexico 87004

Pueblo of Isleta
Department of Cultural and Historic Preservation
Attn: Daniel Waseta, Director
P.O. Box 1270
Isleta NM 87022

Water Resources Division Manager
Pueblo of Santa Ana
2 Dove Road
Santa Ana Pueblo, New Mexico 87004

3. If the permittee receives a request for an archeological survey or notice of adverse effects from the SHPO, the permittee shall delay such activity until:

   a. A cultural resource survey report has been submitted to the SHPO for a review and a determination of no effect or no adverse effect has been made, and

   b. If an adverse effect is anticipated, measures to minimize harm to historic properties have been agreed upon between the permittee and the SHPO.

4. If the permittee does not receive notification of adverse effects or a request for an archeological survey from the SHPO within thirty (30) days, the permittee may proceed with the activity.

5. Alternately, the permittee may obtain authorization for stormwater discharges from such sites of disturbance by applying for a modification of this permit. The permittee may apply for a permit modification by submitting the following information to the Permitting Authority 180 days prior to commencing such discharges:

   a. A letter requesting a permit modification to include discharges from activities subject to this provision, in accordance with the signatory requirements in Part IV.H.

   b. A description of the construction or land disturbing activity and the potential impact that this activity may have upon the ground; County in which the facility will be constructed; type of facility to be constructed; size area (in acres) that the facility will encompass; expected date of construction; and whether the facility is located on land owned or controlled by any political subdivision of New Mexico; and

   c. A copy of a USGS topographic map outlining the location of the project and other ancillary impact areas.

V. **CONTINUATION OF THE EXPIRED GENERAL PERMIT**. If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with the Administrative Procedures Act and remain in force and effect. Any permittee who was granted permit coverage prior to the expiration date will automatically remain covered by the continued permit until the earlier of:

II. State Historic Preservation Officers (SHPO)
SHPO List for areas covered by the permit:

NEW MEXICO
Historic Preservation Div, Office of Cultural Affairs
Bataan Memorial Building, 407 Galisteo Street, Suite 236
Santa Fe, NM 87501
505-827-6320 FAX: 505-827-6338

III. Tribal Historic Preservation Officers
(THPO)
In instances where a Tribe does not have a Tribal Historic Preservation Officer, please contact the appropriate Tribal government office when responding to this permit eligibility condition.

Tribal Historic Preservation Officers:
Mescalero Apache Tribe
P.O. Box 227
Mescalero, New Mexico 88340

Pueblo of Sandia Environment Department
Attn: Frank Chaves, Environment Director
481 Sandia Loop
Bernalillo, New Mexico 87004

Pueblo of Isleta
Department of Cultural and Historic Preservation
Attn: Dr. Henry Walt, THPO
P.O. Box 1270
Isleta NM 87022

Water Resources Division Manager
Pueblo of Santa Ana
2 Dove Road
Santa Ana Pueblo, New Mexico 87004

For more information:
National Association of Tribal Historic
Preservation Officers
P.O. Box 19189
Washington, DC 20036-9189
Phone: (202) 628-8476
Fax: (202) 628-2241

IV. Advisory Council on Historic Preservation
Advisory Council on Historic Preservation, 1100 Pennsylvania Avenue, NW., Suite 803, Washington, DC 20004 Telephone: (202) 606-8503, Fax: (202) 606-8647/8672, E-mail: achp@achp.gov

Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

NPDES General Permit No. NMR04A000

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et. seq; the "Act"), except as provided in Part I.A.5 of this permit, operators of municipal separate storm sewer systems located in the area specified in Part I.A.1 are authorized to discharge pollutants to waters of the United States in accordance with the conditions and requirements set forth herein.

Only operators of municipal separate storm sewer systems in the general permit area who submit a Notice of Intent and a storm water management program document in accordance with Part I.A.6 of this permit are authorized to discharge storm water under this general permit.

This is a renewal NPDES permit issued for these portions of the small municipal separate storm sewer systems covered under the NPDES permit No NMR040000 and NMR04000I and the large municipal separate storm sewer systems covered under the NPDES permit No NMS000101.

This permit is issued on and shall become effective on the date of publication in the Federal Register. DEC 2 2 2014

This permit and the authorization to discharge shall expire at, midnight, December 19, 2019.

Signed by

William K. Honker, P.E.
Director
Water Quality Protection Division

Prepared by

Nelly Smith
Environmental Engineer
NPDES Permits and TMDLs Branch

MIDDLE RIO GRANDE WATERSHED BASED MUNICIPAL SEPARATE STORM SEWER SYSTEM PERMIT

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PART I. INDIVIDUAL PERMIT CONDITIONS

A. DISCHARGES AUTHORIZED UNDER THIS PERMIT

1. **Permit Area**. This permit is available for MS4 operators within the Middle Rio Grande Sub-Watersheds described in Appendix A. This permit may authorize stormwater discharges to waters of the United States from MS4s within the Middle Rio Grande Watershed provided the MS4:

   a. Is located fully or partially within the corporate boundary of the City of Albuquerque;

   b. Is located fully or partially within the Albuquerque urbanized area as determined by the 2000 and 2010 Decennial Census. Maps of Census 2010 urbanized areas are available at: http://water.epa.gov/polwaste/npdes/stormwater/Urbanized-Area-Maps-for-NPDES-MS4-Phase-II-Stormwater-Permits.cfm;

   c. Is designated as a regulated MS4 pursuant to 40 CFR 122.32; or

   d. This permit may also authorize an operator of a MS4 covered by this permit for discharges from areas of a regulated small MS4 located outside an Urbanized Areas or areas designated by the Director provided the permittee complies with all permit conditions in all areas covered under the permit.

2. **Potentially Eligible MS4s.** MS4s located within the following jurisdictions and other areas, including any designated by the Director, are potentially eligible for authorization under this permit:

   - City of Albuquerque
   - AMAFCA (Albuquerque Metropolitan Arroyo Flood Control Authority)
   - UNM (University of New Mexico)
   - NMDOT (New Mexico Department of Transportation District 3)
   - Bernalillo County
   - Sandoval County
   - Village of Corrales
   - City of Rio Rancho
   - Los Ranchos de Albuquerque
   - KAFB (Kirtland Air Force Base)
   - Town of Bernalillo
   - EXPO (State Fairgrounds/Expo NM)
   - SSCAFCA (Southern Sandoval County Arroyo Flood Control Authority)
   - ESCAFCA (Eastern Sandoval County Arroyo Flood Control Authority)
   - Sandia Laboratories, Department of Energy (DOE)
   - Pueblo of Sandia
   - Pueblo of Isleta
   -Pueblo of Santa Ana

3. **Eligibility**. To be eligible for this permit, the operator of the MS4 must provide:

   a. Public Participation: Prior submitting the Notice of Intent (NOI), the operator of the MS4 must follow the local notice and comment to procedures at Part I.D.5.h.(i).

   b. National Historic Preservation Act (NHPA) Eligibility Provisions

   In order to be eligible for coverage under this permit, the applicant must be in compliance with the National Historic Preservation Act. Discharges may be authorized under this permit only if:

(i) Criterion A: storm water discharges, allowable non-storm water discharges, and discharge-related activities do not affect a property that is listed or is eligible for listing on the National Register of Historic Places as maintained by the Secretary of the Interior; or

(ii) Criterion B: the applicant has obtained and is in compliance with a written agreement with the State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO) (or equivalent tribal authority) that outlines all measures the MS4 operator will undertake to mitigate or prevent adverse effect to the historic property.

Appendix C of this permit provides procedures and references to assist with determining permit eligibility concerning this provision. You must document and incorporate the results of your eligibility determination in your SWMP.

The permittee shall also comply with the requirements in Part IV.U.

4. **Authorized Non-Stormwater Discharges**. The following non-stormwater discharges need not be prohibited unless determined by the permittees, U.S. Environmental Protection Agency (EPA), or New Mexico Environment Department (NMED) to be significant contributors of pollutants to the municipal separate storm sewer system (MS4). Any such discharge that is identified as significant contributor pollutants to the MS4, or as causing or contributing to a water quality standards violation, must be addressed as an illicit discharge under the illicit discharge and improper disposal practices established pursuant to Part I.D.5.e of this permit. For all of the discharges listed below, not treated as illicit discharges, the permittee must document the reason these discharges are not expected to be significant contributors of pollutants to the MS4. This documentation may be based on either the nature of the discharge or any pollution prevention/treatment requirements placed on such discharges by the permittee.

- potable water sources, including routine water line flushing;
- lawn, landscape, and other irrigation waters provided all pesticides, herbicides and fertilizers have been applied in accordance with approved manufacturing labeling and any applicable permits for discharges associated with pesticide, herbicide and fertilizer application;
- diverted stream flows;
- rising ground waters;
- uncontaminated groundwater infiltration (as defined at 40 CFR §35.2005 (20));
- uncontaminated pumped groundwater;
- foundation and footing drains;
- air conditioning or compressor condensate;
- springs;
- water from crawl space pumps;
- individual residential car washing;
- flows from riparian habitats and wetlands;
- dechlorinated swimming pool discharges;
- street wash waters that do not contain detergents and where no un-remediated spills or leaks of toxic or hazardous materials have occurred;
- discharges or flows from fire fighting activities (does not include discharges from fire fighting training activities); and,
- other similar occasional incidental non-stormwater discharges (e.g. non-commercial or charity car washes, etc.)

5. **Limitations of Coverage**. This permit does not authorize:

a. Non-Storm Water: Discharges that are mixed with sources of non-storm water unless such non-storm water discharges are:

(i) In compliance with a separate NPDES permit; or

(ii) Exempt from permitting under the NPDES program; or

(iii) Determined not to be a substantial contributor of pollutants to waters of the United States. See Part I.A.4.

b. Industrial Storm Water: Storm water discharges associated with industrial activity as defined in 40 CFR §122.26(b)(14)(i)-(ix) and (xi).

c. Construction Storm Water: Storm water discharges associated with construction activity as defined in 40 CFR §122.26(b)(14)(x) or 40 CFR §122.26(b)(15).

d. Currently Permitted Discharges: Storm water discharges currently covered under another NPDES permit.

e. Discharges Compromising Water Quality: Discharges that EPA, prior to authorization under this permit, determines will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard. Where such a determination is made prior to authorization, EPA may notify you that an individual permit application is necessary in accordance with Part IV.M. However, EPA may authorize your coverage under this permit after you have included appropriate controls and implementation procedures in your SWMP designed to bring your discharge into compliance with water quality standards.

f. Discharges Inconsistent with a TMDL: You are not eligible for coverage under this permit for discharges of pollutants of concern to waters for which there is an applicable total maximum daily load (TMDL) established or approved by EPA unless you incorporate into your SWMP measures or controls that are consistent with the assumptions and requirements of such TMDL. To be eligible for coverage under this general permit, you must incorporate documentation into your SWMP supporting a determination of permit eligibility with regard to waters that have an EPA-established or approved TMDL. If a wasteload allocation has been established that would apply to your discharge, you must comply with the requirements established in Part I.C.2.b.(i). Where an EPA-approved or established TMDL has not specified a wasteload allocation applicable to municipal storm water discharges, but has not specifically excluded these discharges, adherence to a SWMP that meets the requirements in Part I.C.2.b.(ii) of this general permit will be presumed to be consistent with the requirements of the TMDL. If the EPA-approved or established TMDL specifically precludes such discharges, the operator is not eligible for coverage under this general permit.

6. **Authorization Under This General Permit**

a. Obtaining Permit Coverage.

(i) An MS4 operator seeking authorization to discharge under this general permit must submit electronically a complete notice of intent (NOI) to the e-mail address provided in Part I.B.3 (see suggested EPA R6 MS4 NOI format located in EPA website at http://epa.gov/region6/water/npdes/sw/ms4/index.htm), in accordance with the deadlines in Part I.B.1 of this permit. The NOI must include the information and attachments required by Parts I.B.2, Part I.A.3, Part I.D.5.h.(i), and I.A.5.f of this permit. By submitting a signed NOI, the applicant certifies that all eligibility criteria for permit coverage have been met. If EPA notifies a discharger (either directly, by public notice, or by making information available on the Internet) of other NOI options that become available at a later date, such as electronic submission of forms or information, the MS4 operator may take advantage of those options to satisfy the NOI submittal requirements.

(ii) If an operator changes or a new operator is added after an NOI has been submitted, the operator must submit a new or revised NOI to EPA.

(iii) An MS4 operator who submits a complete NOI and meets the eligibility requirements in Part I of this permit is authorized to discharge storm water from the MS4 under the terms and conditions of this general permit only upon written notification by the Director. After review of the NOI and any public comments on the NOI, EPA may condition permit coverage on correcting any deficiencies or on including a schedule to respond to any public comments. (See also Parts I.A.3 and Part I.D.5.h.(i).)

(iv) If EPA notifies the MS4 operator of deficiencies or inadequacies in any portion of the NOI (including the SWMP), the MS4 operator must correct the deficient or inadequate portions and submit a written statement to EPA certifying that appropriate changes have been made. The certification must be submitted within the time-frame specified by EPA and must specify how the NOI has been amended to address the identified concerns.

(v) The NOI must be signed and certified in accordance with Parts IV.H.1 and 4. Signature for the NOI, which effectively takes the place of an individual permit application, may not be delegated to a lower level under Part IV.H.2

b. Terminating Coverage.

(i) A permittee may terminate coverage under this general permit by submitting a notice of termination (NOT). Authorization to discharge terminates at midnight on the day the NOT is post-marked for delivery to EPA.

(ii) A permittee must submit an NOT to EPA within 30 days after the permittee:

(a) Ceases discharging storm water from the MS4,

(b) Ceases operations at the MS4, or

(c) Transfers ownership of or responsibility for the facility to another operator.

(iii) The NOT will consist of a letter to EPA and must include the following information:

(a) Name, mailing address, and location of the MS4 for which the notification is submitted;

(b) The name, address and telephone number of the operator addressed by the NOT;

(c) The NPDES permit number for the MS4;

(d) An indication of whether another operator has assumed responsibility for the MS4, the discharger has ceased operations at the MS4, or the storm water discharges have been eliminated; and

(e) The following certification:

I certify under penalty of law that all storm water discharges from the identified MS4 that are authorized by an NPDES general permit have been eliminated, or that I am no longer the operator of the MS4, or that I have ceased operations at the MS4. I understand that by submitting this Notice of Termination I am no longer authorized to discharge storm water under this general permit, and that discharging pollutants in storm water to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by an NPDES permit. I also understand that the submission of this Notice of Termination does not release an operator from liability for any violations of this permit or the Clean Water Act.

(f) NOTs, signed in accordance with Part IV.H.1 of this permit, must be sent to the e-mail address in Part I.B.3. Electronic submittal of the NOT required in the permit using a compatible Integrated Compliance Information System (ICIS) format would be allowed if available.

B. NOTICE OF INTENT REQUIREMENTS

1. **Deadlines for Notification**.

a. Designations: Small MS4s automatically designated under 40 CFR 122.32(a)(1), large MS4s located within the corporate boundary of the COA including the COA and former co-permittees under the NPDES permit No

NMS000101, and MS4s designated under 40 CFR 122.26(a)(1)(v), 40 CFR 122.26(a)(9)(i)(C) or (D), or 40 CFR 122.32(a)(2) are required to submit individual NOIs by the dates listed in Table 1. Any MS4 designated as needing a permit after issuance of this permit will be given an individualized deadline for NOI submittal by the Director at the time of designation.

In lieu of creating duplicate program elements for each individual permittee, implementation of the SWMP, as required in Part I.D, may be achieved through participation with other permittees, public agencies, or private entities in cooperative efforts to satisfy the requirements of Part D. For these programs with cooperative elements, the permittee may submit individual NOIs as established in Table 1. See also "Permittees with Cooperative Elements in their SWMP " under Part.I.B.4 and "Shared Responsibilities and Cooperative Programs" under Part I.D.3.

Table 1 Deadlines to Submit NOI

Permittee Class Type	**NOI Deadlines**
Class A: MS4s within the Cooperate Boundary of the COA including former co-permittees under the NPDES permit No NMS000101	90 days from effective date of the permit or 180 days from effective date of the permit if participating in cooperative programs for one or more program elements.
Class B: MS4s designated under 40 CFR 122.32(a)(1). Based on 2000 Decennial Census Map	90 days from effective date of the permit or 180 days from effective date of the permit if participating in cooperative programs for one or more program elements.
Class C: MS4s designated under 40 CFR 122.26(a)(1)(v), 40 CFR 122.26(a)(9)(i)(C) or (D), or 40 CFR 122.32(a)(2) or MS4s newly designated under 122.32(a)(1) based on 2010 Decennial Census Map	180 days from effective date of the permit or notice of designation, unless the notice of designation grants a later date or; 180 days from effective date of the permit if participating in cooperative programs for one or more program elements.
Class D: MS4s within Indian Country Lands designed under 40 CFR 122.26(a)(1)(v), 122.26(a)(9)(i)(C) or (D), 122.32(a)(1), or 122.32(a)(2)	180 days from effective date of the permit or notice of designation, unless the notice of designation grants a later date or; 180 days from effective date of the permit if participating in cooperative programs for one or more program elements.

See Appendix A for list of potential permittees in the Middle Rio Grande Watershed

b. New Operators. For new operators of all or a part of an already permitted MS4 (due to change on operator or expansion of the MS4) who will take over implementation of the existing SWMP covering those areas, the NOI must be submitted 30 days prior to taking over operational control of the MS4. Existing permittees who are expanding coverage of their MS4 area (e.g., city annexes part of unincorporated county MS4) are not required to submit a new NOI, but must comply with Part I.D.6.d.

c. Submitting a Late NOI. MS4s not able to meet the NOI deadline in Table I and Part I.B.1.b due to delays in determining eligibility should notify EPA of the circumstance and progress to date at the address in Part I.B.3 and then proceed with a late NOI. MS4 operators are not prohibited from submitting an NOI after the dates provided in Table 1 and Part I.B.1.b. If a late NOI is submitted, the authorization is only for discharges that occur after permit coverage is effective. The permitting authority reserves the right to take appropriate enforcement actions for any unpermitted discharges.

d. End of Administrative Continued Coverage under Previous Permit. Administrative continuance is triggered by a timely reapplication. Discharges submitting an NOI for coverage under this permit are considered to have met

the timely reapplication requirement if NOI is submitted by the deadlines included in Table 1 of Part I.B.1. For MS4s previously covered under either NMS000101 or NMR040000, continued coverage under those permits ends: a) the day after the applicable deadline for submittal of an NOI if a complete NOI has not been submitted or b) upon notice of authorization under this permit if a complete and timely NOI is submitted.

2. **Contents of Notice of Intent**. An MS4 operator eligible for coverage under this general permit must submit an NOI to discharge under this general permit. The NOI will consist of a letter to EPA containing the following information (see suggested EPA R6 MS4 NOI Format located in EPA website at http://www.epa.gov/region6/water/npdes/sw/ms4/index.htm) and must be signed in accordance with Part IV.H of this permit:

   a. The legal name of the MS4 operator and the name of the urbanized area and core municipality (or Indian reservation/pueblo) in which the operator's MS4 is located;

   b. The full facility mailing address and telephone number;

   c. The name and phone number of the person or persons responsible for overall coordination of the SWMP;

   d. An attached location map showing the boundaries of the MS4 under the applicant's jurisdiction. The map must include streets or other demarcations so that the exact boundaries can be located;

   e. The area of land served by the applicant's MS4 (in square miles);

   f. The latitude and longitude of the approximate center of the MS4;

   g. The name(s) of the waters of the United States that receive discharges from the system.

   h. If the applicant is participating in a cooperative program element or is relying on another entity to satisfy one or more permit obligations (see Part I.D.3), identify the entity(ies) and the element(s) the entity(ies) will be implementing;

   i. Information on each of the storm water minimum control measures in Part I.D.5 of this permit and how the SWMP will reduce pollutants in discharges to the Maximum Extent Practicable. For each minimum control measure, include the following:

      (i) Description of the best management practices (BMPs) that will be implemented;

      (ii) Measurable goals for each BMP; and

      (iii) Time frames (i.e., month and year) for implementing each BMP;

   j. Based on the requirements of Part I.A.3.b describe how the eligibility criteria for historic properties have been met;

   k. Indicate whether or not the MS4 discharges to a receiving water for which EPA has approved or developed a TMDL. If so, describe how the eligibility requirements of Part I.A.5.f and Part I.C.2 have been met.

      Note: If an individual permittee or a group of permittees seeks an alternative sub-measureable goal for TMDL controls under Part I.C.2.b.(i).(c).B, the permittee or a group of permittees must submit a preliminary proposal with the NOI. This proposal shall include, but is not limited to, the elements included in Appendix B under Section B.2.

   l. Signature and certification by an appropriate official (see Part IV.H). The NOI must include the certification statement from Part IV.H.4.

3. **Where to Submit.** The MS4 operator must submit the signed NOI to EPA via e-mail at R6_MS4Permits@epa.gov (note: there is an underscore between R6 and MS4) and NMED to the address provided in Part III.D.4. See also Part III.D.4 to determine if a copy must be provided to a Tribal agency.

   The following MS4 operators: AMAFCA, Sandoval County, Village of Corrales, City of Rio Rancho, Town of Bernalillo, SSCAFCA, and ESCAFCA must submit the signed NOI to the Pueblo of Sandia to the address provided in Part III.D.4.

   Note: See suggested EPA R6 MS4 NOI Format located in EPA website at http://www.epa.gov/region6/water/npdes/sw/ms4/index.htm. A complete copy of the signed NOI should be maintained on site. Electronic submittal of the documents required in the permit using a compatible Integrated Compliance Information System (ICIS) format would be allowed if available.

4. **Permittees with Cooperative Elements in their SWMP.** Any MS4 that meets the requirements of Part I.A of this general permit may choose to partner with one or more other regulated MS4 to develop and implement a SWMP or SWMP element. The partnering MS4s must submit separate NOIs and have their own SWMP, which may incorporate jointly developed program elements. If responsibilities are being shared as provided in Part I.D.3 of this permit, the SWMP must describe which permittees are responsible for implementing which aspects of each of the minimum measures. All MS4 permittees are subject to the provisions in Part I.D.6.

   Each individual MS4 in a joint agreement implementing a permit condition will be independently assessed for compliance with the terms of the joint agreement. Compliance with that individual MS4s obligations under the joint agreement will be deemed compliance with that permit condition. Should one or more individual MS4s fail to comply with the joint agreement, causing the joint agreement program to fail to meet the requirements of the permit, the obligation of all parties to the joint agreement is to develop within 30 days and implement within 90 days an alternative program to satisfy the terms of the permit.

C. SPECIAL CONDITIONS

1. **Compliance with Water Quality Standards**. Pursuant to Clean Water Act §402(p)(3)(B)(iii) and 40 CFR §122.44(d)(1), this permit includes provisions to ensure that discharges from the permittee's MS4 do not cause or contribute to exceedances of applicable surface water quality standards, in addition to requirements to control discharges to the maximum extent practicable (MEP) set forth in Part I.D. Permittees shall address stormwater management through development of the SWMP that shall include the following elements and specific requirements included in Part VI.

   a. Permittee's discharges shall not cause or contribute to an exceedance of surface water quality standards (including numeric and narrative water quality criteria) applicable to the receiving waters. In determining whether the SWMP is effective in meeting this requirement or if enhancements to the plan are needed, the permittee shall consider available monitoring data, visual assessment, and site inspection reports.

   b. Applicable surface water quality standards for discharges from the permittees' MS4 are those that are approved by EPA and any other subsequent modifications approved by EPA upon the effective date of this permit found at New Mexico Administrative Code §20.6.4. Discharges from various portions of the MS4 also flow downstream into waters with Pueblo of Isleta and Pueblo of Sandia Water Quality Standards;

   c. The permittee shall notify EPA and the Pueblo of Isleta in writing as soon as practical but not later than thirty (30) calendar days following each Pueblo of Isleta water quality standard exceedance at an in-stream sampling location. In the event that EPA determines that a discharge from the MS4 causes or contributes to an exceedance of applicable surface water quality standards and notifies the permittee of such an exceedance, the permittee shall, within sixty (60) days of notification, submit to EPA, NMED, Pueblo of Isleta (upon request) and Pueblo of Sandia (upon request), a report that describes controls that are currently being implemented and additional controls that will be implemented to prevent pollutants sufficient to ensure that the discharge will no longer cause or contribute to an exceedance of applicable surface water quality standards. The permittee shall implement such additional controls upon notification by EPA and shall incorporate such measures into their SWMP as described in Part I.D of this permit. NMED or the affected Tribe may provide information

documenting exceedances of applicable water quality standards caused or contributed to by the discharges authorized by this permit to EPA Region 6 and request EPA take action under this paragraph.

d. Phase I Dissolved Oxygen Program (Applicable only to the COA and AMAFCA as a continuation of program in 2012 NMS000101 individual permit): Within one year from effective date of the permit , the permittees shall revise the May 1, 2012 Strategy to continue taking measures to address concerns regarding discharges to the Rio Grande by implementing controls to eliminate conditions that cause or contribute to exceedances of applicable dissolved oxygen water quality standards in waters of the United States. The permittees shall:

(i) Continue identifying structural elements, natural or man-made topographical and geographical formations, MS4 operations activities, or oxygen demanding pollutants contributing to reduced dissolved oxygen in the receiving waters of the Rio Grande. Both dry and wet weather discharges shall be addressed. Assessment may be made using available data or collecting additional data;

(ii) Continue implementing controls, and updating/revising as necessary, to eliminate structural elements or the discharge of pollutants at levels that cause or contribute to exceedances of applicable water quality standards for dissolved oxygen in waters of the United States;

(iii) To verify the remedial action in the North Diversion Channel Embayment, the COA and AMAFCA shall continue sampling for DO and temperature until the data indicate the discharge does not exceed applicable dissolved oxygen water quality standards in waters of the United States; and

(iv) Submit a revised strategy to FWS for consultation and EPA for approval from a year of effective date of the permit and progress reports with the subsequent Annual Reports. Progress reports to include:

(a) Summary of data.

(b) Activities undertaken to identify MS4 discharge contribution to exceedances of applicable dissolved oxygen water quality standards in waters of the United States. Including summary of findings of the assessment required in Part I.C.1.d.(i).

(c) Conclusions drawn, including support for any determinations.

(d) Activities undertaken to eliminate MS4 discharge contribution to exceedances of applicable dissolved oxygen water quality standards in waters of the United States.

(e) Account of stakeholder involvement.

e. PCBs (Applicable only to the COA and AMAFCA as a continuation of program in 2012 NMS000101 individual permit and Bernalillo County): The permittee shall address concerns regarding PCBs in channel drainage areas specified in Part I.C.1.e.(vi) by developing or continue updating/revising and implementing a strategy to identify and eliminate controllable sources of PCBs that cause or contribute to exceedances of applicable water quality standards in waters of the United States. Bernalillo County shall submit the proposed PCB strategy to EPA within two (2) years from the effective date of the permit and submit a progress report with the third and with subsequent Annual Reports. COA and AMAFCA shall submit a progress report with the first and with the subsequent Annual Reports. The progress reports shall include:

(i) Summary of data.

(ii) Findings regarding controllable sources of PCBs in the channel drainages area specified in Part I.C.1.e.(vi) that cause or contribute to exceedances of applicable water quality standards in waters of the United States via the discharge of municipal stormwater.

(iii) Conclusions drawn, including supporting information for any determinations.

(iv) Activities undertaken to eliminate controllable sources of PCBs in the drainage areas specified in Part I.C.1.e.(vi) that cause or contribute to exceedances of applicable water quality standards in waters of the United States via the discharge of municipal stormwater including proposed activities that extend beyond the five (5) year permit term.

(v) Account of stakeholder involvement in the process.

(vi) Channel Drainage Areas: The PCB strategy required in Part I.C.1.e is only applicable to:

COA and AMAFCA Channel Drainage Areas:
- San Jose Drain
- North Diversion Channel

Bernalillo County Channel Drainage Areas:
- Adobe Acres Drain
- Alameda Outfall Channel
- Paseo del Norte Outfall Channel
- Sanchez Farm Drainage Area

A cooperative strategy to address PCBs in the COA, AMAFCA and Bernalillo County's drainage areas may be developed between Bernalillo County, AMAFCA, and the COA. If a cooperative strategy is developed, the cooperative strategy shall be submitted to EPA within three (3) years from the effective date of the permit and submit a progress report with the fourth and with subsequent Annual Reports,

Note: COA and AMAFCA must continue implementing the existing PCB strategy until a new Cooperative PCB Strategy is submitted to EPA.

f. Temperature (Applicable only to the COA and AMAFCA as a continuation of program in 2012 NMS000101 individual permit): The permittees must continue assessing the potential effect of stormwater discharges in the Rio Grande by collecting and evaluating additional data. If the data indicates there is a potential of stormwater discharges contributing to exceedances of applicable temperature water quality standards in waters of the United States, within thirty (30) days such as findings, the permittees must develop and implement a strategy to eliminate conditions that cause or contribute to these exceedances. The strategy must include:

(i) Identify structural controls, post construction design standards, or pollutants contributing to raised temperatures in the receiving waters of the Rio Grande. Both dry and wet weather discharges shall be addressed. Assessment may be made using available data or collecting additional data;

(ii) Develop and implement controls to eliminate structural controls, post construction design standards, or the discharge of pollutants at levels that cause or contribute to exceedances of applicable water quality standards for temperature in waters of the United States; and

(iii) Provide a progress report with the first and with subsequent Annual Reports. The progress reports shall include:

(a) Summary of data.

(b) Activities undertaken to identify MS4 discharge contribution to exceedances of applicable temperature water quality standards in waters of the United States.

(c) Conclusions drawn, including supporting information for any determinations.

(d) Activities undertaken to reduce MS4 discharge contribution to exceedances of applicable temperature water quality standards in waters of the United States.

(e) Accounting of stakeholder involvement.

2. **Discharges to Impaired Waters with and without approved TMDLs**. Impaired waters are those that have been identified pursuant to Section 303(d) of the Clean Water Act as not meeting applicable surface water quality standards. This may include both waters with EPA-approved Total Maximum Daily Loads (TMDLs) and those for which a TMDL has not yet been approved. For the purposes of this permit, the conditions for discharges to impaired waters also extend to controlling pollutants in MS4 discharges to tributaries to the listed impaired waters in the Middle Rio Grande watershed boundary identified in Appendix A.

   a. Discharges of pollutant(s) of concern to impaired water bodies for which there is an EPA approved total maximum daily load (TMDL) are not eligible for this general permit unless they are consistent with the approved TMDL. A water body is considered impaired for the purposes of this permit if it has been identified, pursuant to the latest EPA approved CWA §303(d) list, as not meeting New Mexico Surface Water Quality Standards.

   b. The permittee shall control the discharges of pollutant(s) of concern to impaired waters and waters with approved TMDLs as provided in sections (i) and (ii) below, and shall assess the success in controlling those pollutants.

      (i) Discharges to Water Quality Impaired Water Bodies with an Approved TMDL
      If the permittee discharges to an impaired water body with an approved TMDL (see Appendix B), where stormwater has the potential to cause or contribute to the impairment, the permittee shall include in the SWMP controls targeting the pollutant(s) of concern along with any additional or modified controls required in the TMDL and this section. The SWMP and required annual reports must include information on implementing any focused controls required to reduce the pollutant(s) of concern as described below:

         (a) Targeted Controls: The SWMP submitted with the first annual report must include a detailed description of all targeted controls to be implemented, such as identifying areas of focused effort or implementing additional Best Management Practices (BMPs) that will be implemented to reduce the pollutant(s) of concern in the impaired waters.

         (b) Measurable Goals: For each targeted control, the SWMP must include a measurable goal and an implementation schedule describing BMPs to be implemented during each year of the permit term. Where the impairment is for bacteria, the permittee must, at minimum comply with the activites and schedules described in Table 1.a of Part I.C.2.(iii).

         (c) Identification of Measurable Goal: The SWMP must identify a measurable goal for the pollutant(s) of concern. The value of the measurable goal must be based on one of the following options:

            A. If the permittee is subject to a TMDL that identifies an aggregate Waste Load Allocation (WLA) for all or a class of permitted MS4 stormwater sources, then the SWMP may identify such WLA as the measurable goal. Where an aggregate WLA measurable goal is used, all affected MS4 operators are jointly responsible for progress in meeting the measurable goal and shall (jointly or individually) develop a monitoring/assessment plan. This program element may be coordinated with the monitoring required in Part III.A.

            B. Alternatively, if multiple permittees are discharging into the same impaired water body with an approved TMDL (which has an aggregate WLA for all permitted stormwater MS4s), the MS4s may combine or share efforts, in consultation with/and the approval of NMED, to determine an alternative sub-measurable goal derived from the WLA for the pollutant(s) of concern (e.g., bacteria) for their respective MS4. The SWMP must clearly define this alternative approach and must describe how the sub-measurable goals would cumulatively support the aggregate WLA. Where an aggregate WLA measurable goal has been broken into sub-measurable goals for individual MS4s, each permittee is only responsible for progress in meeting its WLA sub-measurable goal.

C. If the permittee is subject to an individual WLA specifically assigned to that permittee, the measurable goal must be the assigned WLA. Where WLAs have been individually assigned, or where the permittee is the only regulated MS4 within the urbanized area that is discharging into the impaired watershed with an approved TMDL, the permittee is only responsible for progress in meeting its WLA measurable goal.

(d) Annual Report: The annual report must include an analysis of how the selected BMPs have been effective in contributing to achieving the measurable goal and shallll include graphic representation of pollutant trends, along with computations of annual percent reductions achieved from the baseline loads and comparisons with the target loads.

(e) Impairment for Bacteria: If the pollutant of concern is bacteria, the permittee shall include focused BMPs addressing the five areas below, as applicable, in the SWMP and implement as appropriate. If a TMDL Implementation Plan (a plan created by the State or a Tribe) is available, the permittee may refer to the TMDL Implementation Plan for appropriate BMPs. The SWMP and annual report must include justification for not implementing a particular BMP included in the TMDL Implementation Plan. The permittee may not exclude BMPs associated with the minimum control measures required under 40 CFR §122.34 from their list of proposed BMPs. The BMPs shall, as appropriate, address the following:

A. Sanitary Sewer Systems
- Make improvements to sanitary sewers;
- Address lift station inadequacies;
- Identify and implement operation and maintenance procedures;
- Improve reporting of violations; and
- Strengthen controls designed to prevent over flows

B. On-site Sewage Facilities (for entities with appropriate jurisdiction)
- Identify and address failing systems; and
- Address inadequate maintenance of On-Site Sewage Facilities (OSSFs).

C. Illicit Discharges and Dumping
- Place additional effort to reduce waste sources of bacteria; for example, from septic systems, grease traps, and grit traps.

D. Animal Sources
- Expand existing management programs to identify and target animal sources such as zoos, pet waste, and horse stables.

E. Residential Education: Increase focus to educate residents on:
- Bacteria discharging from a residential site either during runoff events or directly;
- Fats, oils, and grease clogging sanitary sewer lines and resulting overflows;
- Decorative ponds; and
- Pet waste.

(f) Monitoring or Assessment of Progress: The permittee shall monitor or assess progress in achieving measurable goals and determining the effectiveness of BMPs, and shall include documentation of this monitoring or assessment in the SWMP and annual reports. In addition, the SWMP must include methods to be used. This program element may be coordinated with the monitoring required in Part III.A. The permittee may use the following methods either individually or in conjunction to evaluate progress towards the measurable goal and improvements in water quality as follows:

A. Evaluating Program Implementation Measures: The permittee may evaluate and report progress towards the measurable goal by describing the activities and BMPs implemented, by identifying the appropriateness of the identified BMPs, and by evaluating the success of implementing the measurable goals. The permittee may assess progress by using program implementation indicators

such as: (1) number of sources identified or eliminated; (2) decrease in number of illegal dumping; (3) increase in illegal dumping reporting; (4) number of educational opportunities conducted; (5) reductions in SSOs; or, 6) increase in illegal discharge detection through dry screening, etc.; and

B. Assessing Improvements in Water Quality: The permittee may assess improvements in water quality by using available data for segment and assessment units of water bodies from other reliable sources, or by proposing and justifying a different approach such as collecting additional instream or outfall monitoring data, etc. Data may be acquired from NMED, local river authorities, partnerships, and/or other local efforts as appropriate. Progress towards achieving the measurable goal shall be reported in the annual report. Annual reports shall report the measurable goal and the year(s) during the permit term that the MS4 conducted additional sampling or other assessment activities.

(g) Observing no Progress towards the Measurable Goal: If, by the end of the third year from the effective date of the permit, the permittee observes no progress toward the measurable goal either from program implementation or water quality assessments, the permittee shall identify alternative focused BMPs that address new or increased efforts towards the measurable goal. As appropriate, the MS4 may develop a new approach to identify the most significant sources of the pollutant(s) of concern and shall develop alternative focused BMPs (this may also include information that identifies issues beyond the MS4's control). These revised BMPs must be included in the SWMP and subsequent annual reports.

Where the permittee originally used a measurable goal based on an aggregated WLA, the permittee may combine or share efforts with other MS4s discharging to the same impaired stream segment to determine an alternative sub-measurable goal for the pollutant(s) of concern for their respective MS4s, as described in Part I.C.2.b.(i).(c).B above. Permittees must document, in their SWMP for the next permit term, the proposed schedule for the development and subsequent adoption of alternative sub-measurable goals for the pollutant(s) of concern for their respective MS4s and associated assessment of progress in meeting those individual goals.

(ii) Discharges Directly to Water Quality Impaired Water Bodies without an Approved TMDL:
The permittee shall also determine whether the permitted discharge is directly to one or more water quality impaired water bodies where a TMDL has not yet been approved by NMED and EPA. If the permittee discharges directly into an impaired water body without an approved TMDL, the permittee shall perform the following activities:

(a) Discharging a Pollutant of Concern: The permittee shall:

A. Determine whether the MS4 may be a source of the pollutant(s) of concern by referring to the CWA §303(d) list and then determining if discharges from the MS4 would be likely to contain the pollutant(s) of concern at levels of concern. The evaluation of CWA §303(d) list parameters should be carried out based on an analysis of existing data (e.g., Illicit Discharge and Improper Disposal Program) conducted within the permittee's jurisdiction.

B. Ensure that the SWMP includes focused BMPs, along with corresponding measurable goals, that the permittee will implement, to reduce, the discharge of pollutant(s) of concern that contribute to the impairment of the water body. (note: Only applicable if the permittee determines that the MS4 may discharge the pollutant(s) of concern to an impaired water body without a TMDL. The SWMP submitted with the first annual report must include a detailed description of proposed controls to be implemented along with corresponding measurable goals.

C. Amend the SWMP to include any additional BMPs to address the pollutant(s) of concern.

(b) Impairment for Bacteria: Where the impairment is for bacteria, the permittee shall identify potential significant sources and develop and implement targeted BMPs to control bacteria from those sources (see Part I.C.2.b.(i).(e).A through E.. The permittee must, at minimum comply with the activities and

schedules described in Table 1.a of Part I.C.2.(iii). The annual report must include information on compliance with this section, including results of any sampling conducted by the permittee.

Note: Probable pollutant sources identified by permittees should be submitted to NMED on the following form: ftp://ftp.nmenv.state.nm.us/www/swqb/Surveys/PublicProbableSourceIDSurvey.pdf

(c) Impairment for Nutrients: Where the impairment is for nutrients (e.g., nitrogen or phosphorus), the permittee shall identify potential significant sources and develop and implement targeted BMPs to control nutrients from potential sources. The permittee must, at minimum comply with the activities and schedules described in Table 1.b of Part I.C,2, (iii). The annual report must include information on compliance with this section, including results of any sampling conducted by the permittee.

(d) Impairment for Dissolved Oxygen: See Endangered Species Act (ESA) Requirements in Part I.C.3. These program elements may be coordinated with the monitoring required in Part III.A.

(iii) Program Development and Implementation Schedules: Where the impairment is for nutrient constituent (e.g., nitrogen or phosphorus) or bacteria, the permittee must at minimum comply with the activities and schedules in Table 1.a and Table 1.b.

Table 1.a. Pre-TMDL Bacteria Program Development and Implementation Schedules

Activity	Class Permittee				
	A Phase I MS4s	**B Phase II MS4s (2000 Census)**	**C New Phase II MS4s (2010 Census **)**	**D MS4s within Indian Lands**	**Cooperative (*) Any Permittee with cooperative programs**
Identify potential significant sources of the pollutant of concern entering your MS4	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Sixteen (16) months from effective date of permit
Develop (or modify an existing program ***) and implement a public education program to reduce the discharge of bacteria in municipal storm water contributed by (if applicable) by pets, recreational and exhibition livestock, and zoos.	Twelve (12) months from effective date of permit	Twelve (12) months from effective date of permit	Fourteen (14) months from effective date of permit	Fourteen (14) months from effective date of permit	Sixteen (16) months from effective date of permit
Develop (or modify an existing program ***) and implement a program to reduce the discharge of bacteria in municipal storm water contributed by areas within your MS4 served by on-site wastewater treatment systems.	Fourteen (14) months from effective date of permit	Fourteen (14) moths from effective date of permit	Sixteen (16) months from effective date of permit	Sixteen (16) months from effective date of permit	Eighteen (18) months from effective date of permit
Review results to date from the Illicit Discharge Detection and Elimination program (see Part I.D.5.e) and modify as necessary to prioritize the detection and elimination of discharges contributing bacteria to the MS4	Fourteen (14) months from effective date of permit	Fourteen (14) months from effective date of permit	Sixteen (16) months from effective date of permit	Sixteen (16) months from effective date of permit	Eighteen (18) months from effective date of permit

Develop (or modify an existing program ***) and implement a program to reduce the discharge of bacteria in municipal storm water contributed by other significant source identified in the Illicit Discharge Detection and Elimination program (see Part I.D.5.e)	Sixteen (16) months from effective date of permit	Sixteen (16) months from effective date of permit	Eighteen (18) months from effective date of permit	Eighteen (18) months from effective date of permit	Twenty (20) months from effective date of permit
Include in the Annual Reports progress on program implementation and reducing the bacteria and updates their measurable goals as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs
(**) or MS4s designated by the Director
(***) Permittees previously covered under permit NMS000101 or NMR040000
Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

Table 1.b. Pre-TMDL Nutrient Program Development and Implementation Schedules

Activity	**Class Permittee**				
	A Phase I MS4s	**B Phase II MS4s (2000 Census)**	**C New Phase II MS4s (2010 Census **)**	**D MS4s within Indian Lands**	**Cooperative (*) Any Permittee with cooperative programs**
Identify potential significant sources of the pollutant of concern entering your MS4	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Sixteen (16) months from effective date of permit
Develop (or modify an existing program ***) and implement a public education program to reduce the discharge of pollutant of concern in municipal storm water contributed by residential and commercial use of fertilizer	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Sixteen (16) months from effective date of permit
Develop (or modify an existing program ***) and implement a program to reduce the discharge of the pollutant of concern in municipal storm water contributed by fertilizer use at municipal operations (e.g., parks, roadways, municipal facilities)	One (1) year from effective date of permit	One (1) year from effective date of permit	Sixteen (16) months from effective date of permit	Sixteen (16) months from effective date of permit	Eighteen (18) months from effective date of permit

Develop (or modify an existing program ***) and implement a program to reduce the discharge of the pollutant of concern in municipal storm water contributed by municipal and private golf courses within your jurisdiction	One (1) year from effective date of permit	One (1)year from effective date of permit	Sixteen (16) months from effective date of permit	Sixteen (16) months from effective date of permit	Eighteen (18) months from effective date of permit
Develop (or modify an existing program ***) and implement a program to reduce the discharge of the pollutant of concern in municipal storm water contributed by other significant source identified in the Illicit Discharge Detection and Elimination program (see Part I.D.5.e)	One (1) year from effective date of permit	One (1) year from effective date of permit	Sixteen (16) months from effective date of permit	Sixteen (16) months from effective date of permit	Eighteen (18) months from effective date of permit
Include in the Annual Reports progress on program implementation and reducing the nutrient pollutant of concern and updates their measurable goals	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs
(**) or MS4s designated by the Director
(***) Permittees previously covered under permit NMS000101 or NMR040000
Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

These program elements may be coordinated with the monitoring required in Part III.A.

3. **Endangered Species Act (ESA) Requirements**. Consistent with U.S. FWS Biological Opinion dated August 21, 2014 to ensure actions required by this permit are not likely to jeopardize the continued existence of any currently listed as endangered or threatened species or adversely affect its critical habitat, permittees shall meet the following requirements and include them in the SWMP:

   a. Dissolved Oxygen Strategy in the Receiving Waters of the Rio Grande:

      (i) The permittees must identify (or continue identifying if previously covered under permit NMS000101) structural controls, natural or man-made topographical and geographical formations, MS4 operations, or oxygen demanding pollutants contributing to reduced dissolved oxygen in the receiving waters of the Rio Grande. The permittees shall implement controls, and update/revise as necessary, to eliminate discharge of pollutants at levels that cause or contribute to exceedances of applicable water quality standards for dissolved oxygen in waters of the Rio Grande. The permittees shall submit a summary of findings and a summary of activities undertaken under Part I.C.3.a.(i) with each Annual Report. The SWMP submitted with the first and fourth annual reports must include a detailed description of controls implemented (or/and proposed control to be implemented) along with corresponding measurable goals. (Applicable to all permittees).

      (ii) As required in Part I.C.1.d, the COA and AMAFCA shall revise the May 1, 2012 Strategy for dissolved oxygen to address dissolved oxygen at the North Diversion Channel Embayment and/or other MS4 locations. The permittees shall submit the revised strategy to FWS and EPA for approval within a year of permit issuance and progress reports with the subsequent Annual Reports (see also Part I.C.1.d.(iv)). The permittees shall ensure that actions to reduce pollutants or remedial activities selected for the North Diversion Channel Embayment and its watershed are implemented such that there is a reduction in

frequency and magnitude of all low oxygen storm water discharge events that occur in the Embayment or downstream in the MRG as indicated in Table 1.c. Actions to meet the year 3 measurable goals must be taken within 2 years from the effective date of the permit. Actions to meet the year 5 measurable goals must be taken within 4 years from the effective date of the permit.

Table 1.c Measurable Goals of Anoxic and Hypoxia Levels Measured by Permit Year

Permit Year	*Anoxic Events*, max*	*Hypoxic Events**, max*
Year 1	*18*	*36*
Year 2	*18*	*36*
Year 3	*9*	*18*
Year 4	*9*	*18*
Year 5	*4*	*9*

Notes:

- * Anoxic Events: See Appendix G, for oxygen saturation and dissolved oxygen concentrations at various water temperatures and atmospheric pressures for the North Diversion Channel area that are considered anoxic and associated with the Rio Grande Silvery minnow lethality.
- ** Hypoxic Events: See Appendix for G, for oxygen saturation and dissolved oxygen concentrations at various water temperatures and atmospheric pressures for the North Diversion Channel area that are considered hypoxic and associated with the Rio Grande silvery minnow harassment.

(a) The revised strategy shall include:

A. A Monitoring Plan describing all procedures necessary to continue conducting continuous monitoring of dissolved oxygen (DO) and temperature in the North Diversion Channel Embayment and at one (1) location in the Rio Grande downstream of the mouth of the North Diversion Channel within the action area (e.g., Central Bridge). The monitoring plan to be developed will describe the methodology used to assure its quality, and will identify the means necessary to address any gaps that occur during monitoring, in a timely manner (that is, within 24 to 48 hours).

B. A Quality Assurance and Quality Control (QA/QC) Plan describing all standard operating procedures, quality assurance and quality control plans, maintenance, and implementation schedules that will assure timely and accurate collection and reporting of water temperature, dissolved oxygen, oxygen saturation, and flow. The QA/QC plan should include all procedures for estimating oxygen data when any oxygen monitoring equipment fail. Until a monitoring plan with quality assurance and quality control is submitted by EPA, any data, including any provisional or incomplete data from the most recent measurement period (e.g. if inoperative monitoring equipment for one day, use data from previous day) shall be used as substitutes for all values in the calculations for determinations of incidental takes. Given the nature of the data collected as surrogate for incidental take, all data, even provisional data (e.g., oxygen/water temperature data, associated metadata such as flows, date, times), shall be provided to the Service in a spreadsheet or database format within two weeks after formal request.

(b) Reporting: The COA and AMAFCA shall provide

A. An Annual Incidental Take Report to EPA and the Service that includes the following information: beginning and end date of any qualifying stormwater events, dissolved oxygen values and water temperature in the North Diversion Channel Embayment, dissolved oxygen values and water temperature at a downstream monitoring station in the MRG, flow rate in the North Diversion Channel, mean daily flow rate in the MRG, evaluation of oxygen and temperature data

as either anoxic or hypoxic using Table 2 of the BO, and estimate the number of silvery minnows taken based on Appendix A of the BO. Electronic copy of The Annual Incidental Take Report should be provided with the Annual Report required under Part III.B no later than December 1 for the proceeding calendar year.

B. A summary of data and findings with each Annual Report to EPA and the Service. All data collected (including provisional oxygen and water temperature data, and associated metadata), transferred, stored, summarized, and evaluated shall be included in the Annual Report. If additional data is requested by EPA or the Service, The COA and AMAFCA shall provide such as information within two weeks upon request,

The revised strategy required under Part I.C.3.a.(ii),the Annual Incidental Take Reports required under Part I.C.3.a.(ii).(b).A, and Annual Reports required under Part III.B can be submitted to FWS via e-mail nmesfo@fws.gov and joel_lusk@fws.gov, or by mail to the New Mexico Ecological Services field office, 2105 Osuna Road NE, Albuquerque, New Mexico 87113. (Only Applicable to the COA and AMAFCA

b. Sediment Pollutant Load Reduction Strategy (Applicable to all pemittees): The permittee must develop, implement, and evaluate a sediment pollutant load reduction strategy to assess and reduce pollutant loads associated with sediment (e.g., metals, etc. adsorbed to or traveling with sediment, as opposed to clean sediment) into the receiving waters of the Rio Grande. The strategy must include the following elements:

(i) Sediment Assessment: The permittee must identify and investigate areas within its jurisdiction that may be contributing excessive levels (e.g., levels that may contribute to exceedance of applicable Water Quality Standards) of pollutants in sediments to the receiving waters of the Rio Grande as a result of stormwater discharges. The permittee must identify structural elements, natural or man-made topographical and geographical formations, MS4 operations activities, and areas indicated as potential sources of sediments pollutants in the receiving waters of the Rio Grande. At the time of assessment, the permittee shall record any observed erosion of soil or sediment along ephemeral channels, arroyos, or stream banks, noting the scouring or sedimentation in streams. The assessment should be made using available data from federal, state, or local studies supplemented as necessary with collection of additional data. The permittee must describe, in the first annual report, all standard operating procedures, quality assurance plans to assure that accurate data are collected, summarized, evaluated and reported.

(ii) Estimate Baseline Loading: Based on the results of the sediment pollutants assessment required in Part I.C.3.b.(i) above the permittee must provide estimates of baseline total sediment loading and relative potential for contamination of those sediments by urban activities for drainage areas, sub-watersheds, Impervious Areas (IAs), and/or Directly Connected Impervious Area (DCIAs) draining directly to a surface waterbody or other feature used to convey waters of the United States. Sediment loads may be provided for targeted areas in the entire Middle Rio Grande Watershed (see Appendix A) using an individual or cooperative approach. Any data available and/or preliminary numeric modeling results may be used in estimating loads.

(iii) Targeted Controls: Include a detailed description of all proposed targeted controls and BMPs that will be implemented to reduce sediment pollutant loads calculated in PartI.C.3.b.(ii) above during the next ten (10) years of permit issuance. For each targeted control, the permittee must include interim measurable goals (e.g., interim sediment pollutant load reductions) and an implementation and maintenance schedule, including interim milestones, for each control measure, and as appropriate, the months and years in which the MS4 will undertake the required actions. Any data available and/or preliminary numeric modeling results may be used in establishing the targeted controls, BMPs, and interim measurable goals. The permittee must prioritize pollutant load reduction efforts and target areas (e..g. drainage areas, sub-watersheds, IAs, DCIAs) that generate the highest annual average pollutant loads.

(iv) Monitoring and Interim Reporting: The permittee shall monitor or assess progress in achieving interim measurable goals and determining the effectiveness of BMPs, and shall include documentation of this

monitoring or assessment in the SWMP and annual reports. In addition, the SWMP must include methods to be used. This program element may be coordinated with the monitoring required in Part III.A.

(v) Progress Evaluation and Reporting: The permittee must assess the overall success of the Sediment Pollutant Load Reduction Strategy and document both direct and indirect measurements of program effectiveness in a Progress Report to be submitted with the fifth Annual Report. Data must be analyzed, interpreted, and reported so that results can be applied to such purposes as documenting effectiveness of the BMPs and compliance with the ESA requirements specified in Part I.C.3.b. The Progress Report must include:

(a) A list of species likely to be within the action area:

(b) Type and number of structural BMPs installed;

(c) Evaluation of pollutant source reduction efforts;

(d) Any recommendation based on program evaluation;

(e) Description of how the interim sediment load reduction goals established in Part I.C.3.b.(iii) were achieved; and

(f) Future planning activities needed to achieve increase of sediment load reduction required in Part I.C.3.d.(iii).

(vi) Critical Habitat (Applicable to all permittees): Verify that the installation of stormwater BMPs will not occur in or adversely affect currently listed endangered or threatened species critical habitat by reviewing the activities and locations of stormwater BMP installation within the location of critical habitat of currently listed endangered or threatened species at the U.S. Fish and Wildlife service website http://criticalhabitat.fws.gov/crithab/.

D. STORMWATER MANAGEMENT PROGRAM (SWMP)

1. **General Requirements**. The permittee must develop, implement, and enforce a SWMP designed to reduce the discharge of pollutants from a MS4 to the maximum extent practicable (MEP), to protect water quality (including that of downstream state or tribal waters), and to satisfy applicable surface water quality standards. The permittees shall continue implementation of existing SWMPs, and where necessary modify or revise existing elements and/or develop new elements to comply with all discharges from the MS4 authorized in Part I.A. The updated SWMP shall satisfy all requirements of this permit, and be implemented in accordance with Section 402(p)(3)(B) of the Clean Water Act (Act), and the Stormwater Regulations (40 CFR §122.26 and §122.34). This permit does not extend any compliance deadlines set forth in the previous permits (NMS000101 with effective date March 1, 2012 and permits No: NM NMR040000 and NMR04000I with effective date July 1, 2007).

   If a permittee is already in compliance with one or more requirements in this section because it is already subject to and complying with a related local, state, or federal requirement that is at least as stringent as this permit's requirement, the permittee may reference the relevant requirement as part of the SWMP and document why this permit's requirement has been satisfied. Where this permit has additional conditions that apply, above and beyond what is required by the related local, state, or federal requirement, the permittee is still responsible for complying with these additional conditions in this permit.

2. **Legal Authority**. Each permittee shall implement the legal authority granted by the State or Tribal Government to control discharges to and from those portions of the MS4 over which it has jurisdiction. The difference in each co-permittee's jurisdiction and legal authorities, especially with respect to third parties, may be taken into account in developing the scope of program elements and necessary agreements (i.e. Joint Powers Agreement, Memorandum of Agreement, Memorandum of Understanding, etc.). Permittees may use a combination of statute, ordinance, permit, contract, order, interagency or inter-jurisdictional agreement(s) with other permittees to:

a. Control the contribution of pollutants to the MS4 by stormwater discharges associated with industrial activity and the quality of stormwater discharged from sites of industrial activity (applicable only to MS4s located within the corporate boundary of the COA);

b. Control the discharge of stormwater and pollutants associated with land disturbance and development activities, both during the construction phase and after site stabilization has been achieved (post-construction), consistent with Part I.D.5.a and Part I.D.5.b;

c. Prohibit illicit discharges and sanitary sewer overflows to the MS4 and require removal of such discharges consistent with Part I.D.5.e;

d. Control the discharge of spills and prohibit the dumping or disposal of materials other than stormwater (e.g. industrial and commercial wastes, trash, used motor vehicle fluids, leaf litter, grass clippings, animal wastes, etc.) into the MS4;

e. Control, through interagency or inter-jurisdictional agreements among permittees, the contribution of pollutants from one (1) portion of the MS4 to another;

f. Require compliance with conditions in ordinances, permits, contracts and/or orders; and

g. Carry out all inspection, surveillance and monitoring procedures necessary to maintain compliance with permit conditions.

3. **Shared Responsibility and Cooperative Programs**.

a. The SWMP, in addition to any interagency or inter-jurisdictional agreement(s) among permittees, (e.g., the Joint Powers Agreement to be entered into by the permittees), shall clearly identify the roles and responsibilities of each permittee.

b. Implementation of the SWMP may be achieved through participation with other permittees, public agencies, or private entities in cooperative efforts to satisfy the requirements of Part I.D in lieu of creating duplicate program elements for each individual permittee.

(i) Implementation of one or more of the control measures may be shared with another entity, or the entity may fully take over the measure. A permittee may rely on another entity only if:

(a) the other entity, in fact, implements the control measure;

(b) the control measure, or component of that measure, is at least as stringent as the corresponding permit requirement; or,

(c) the other entity agrees to implement the control measure on the permittee's behalf. Written acceptance of this obligation is expected. The permittee must maintain this obligation as part of the SWMP description. If the other entity agrees to report on the minimum measure, the permittee must supply the other entity with the reporting requirements in Part III.D of this permit. The permittee remains responsible for compliance with the permit obligations if the other entity fails to implement the control measure component.

c. Each permittee shall provide adequate finance, staff, equipment, and support capabilities to fully implement its SWMP and all requirements of this permit.

4. **Measurable Goals**. The permittees shall control the discharge of pollutants from its MS4. The permittee shall implement the provisions set forth in Part I.D.5 below, and shall at a minimum incorporate into the SWMP the control measures listed in Part I.D.5 below. The SWMP shall include measurable goals, including interim milestones, for each control measure, and as appropriate, the months and years in which the MS4 will undertake the required actions and the frequency of the action.

5. **Control Measures**.

a. Construction Site Stormwater Runoff Control.

(i) The permittee shall develop, revise, implement, and enforce a program to reduce pollutants in any stormwater runoff to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activity disturbing less than one acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. **Permittees previously covered under permit NMS000101 or NMR040000 must continue existing programs, updating as necessary, to comply with the requirements of this permit.** (Note: Highway Departments and Flood Control Authorities may only apply the construction site stormwater management program to the permittees's own construction projects)

(ii) The program must include the development, implementation, and enforcement of, at a minimum:

(a) An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State, Tribal or local law;

(b) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices (both structural and non-structural);

(c) Requirements for construction site operators to control waste such as, but not limited to, discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality (see EPA guidance at http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=117);

(d) Procedures for site plan review which incorporate consideration of potential water quality impacts. The site plan review must be conducted prior to commencement of construction activities, and include a review of the site design, the planned operations at the construction site, the planned control measures during the construction phase (including the technical criteria for selection of the control measures), and the planned controls to be used to manage runoff created after the development;

(e) Procedures for receipt and consideration of information submitted by the public;

(f) Procedures for site inspection (during construction) and enforcement of control measures, including provisions to ensure proper construction, operation, maintenance, and repair. The procedures must clearly define who is responsible for site inspections; who has the authority to implement enforcement procedures; and the steps utilized to identify priority sites for inspection and enforcement based on the nature of the construction activity, topography, and the characteristics of soils and the quality of the receiving water. If a construction site operator fails to comply with procedures or policies established by the permittee, the permittee may request EPA enforcement assistance. The site inspection and enforcement procedures must describe sanctions and enforcement mechanism(s) for violations of permit requirements and penalties with detail regarding corrective action follow-up procedures, including enforcement escalation procedures for recalcitrant or repeat offenders. Possible sanctions include non-monetary penalties (such as stop work orders and/or permit denials for non-compliance), as well as monetary penalties such as fines and bonding requirements;

(g) Procedures to educate and train permittee personnel involved in the planning, review, permitting, and/or approval of construction site plans, inspections and enforcement. Education and training shall also be provided for developers, construction site operators, contractors and supporting personnel, including requiring a stormwater pollution prevention plan for construction sites within the permitee's jurisdiction;

(h) Procedures for keeping records of and tracking all regulated construction activities within the MS4, i.e. site reviews, inspections, inspection reports, warning letters and other enforcement documents. A

summary of the number and frequency of site reviews, inspections (including inspector's checklist for oversight of sediment and erosion controls and proper disposal of construction wastes) and enforcement activities that are conducted annually and cumulatively during the permit term shall be included in each annual report; and

(iii) Annually conduct site inspections of 100 percent of all construction projects cumulatively disturbing one (1) or more acres within the MS4 jurisdiction. Site inspections are to be followed by any necessary compliance or enforcement action. Follow-up inspections are to be conducted to ensure corrective maintenance has occurred; and, all projects must be inspected at completion for confirmation of final stabilization.

(iv) The permittee must coordinate with all departments and boards with jurisdiction over the planning, review, permitting, or approval of public and private construction projects/activities within the permit area to ensure that the construction stormwater runoff controls eliminate erosion and maintain sediment on site. Planning documents include, but are not limited to: comprehensive or master plans, subdivision ordinances, general land use plan, zoning code, transportation master plan, specific area plans, such as sector plan, site area plans, corridor plans, or unified development ordinances.

(v) The site plan review required in Part I.D.5.a.(ii)(d) must include an evaluation of opportunities for use of GI/LID/Sustainable practices and when the opportunity exists, encourage project proponents to incorporate such practices into the site design to mimic the pre-development hydrology of the previously undeveloped site. For purposes of this permit, pre-development hydrology shall be met according to Part I.D.5.b of this permit. (consistent with any limitations on that capture). Include a reporting requirement of the number of plans that had opportunities to implement these practices and how many incorporated these practices.

(vi) The permittee must include in the SWMP a description of the mechanism(s) that will be utilized to comply with each of the elements required in Part I.D.5.a.(i) throughout Part I.D.5.a.(v), including description of each individual BMP (both structural or non-structural) or source control measures and its corresponding measurable goal.

(vii) The permittee shall assess the overall success of the program, and document the program effectiveness in the annual report. The permittee must include in each annual report:

(a) A summary of the frequency of site reviews, inspections and enforcement activities that are conducted annually and cumulatively during the permit term.

(b) The number of plans that had the opportunity to implement GI/LID/Sustainable practices and how many incorporated the practices.

Program Flexibility Elements

(viii) The permittee may use storm water educational materials locally developed or provided by the EPA (refer to http://water.epa.gov/polwaste/npdes/swbmp/index.cfm, http://www.epa.gov/smartgrowth/parking.htm, http://www.epa.gov/smartgrowth/stormwater.htm), the NMED, environmental, public interest or trade organizations, and/or other MS4s.

(ix) The permittee may develop or update existing construction handbooks (e.g., the COA NPDES Stormwater Management Guidelines for Construction and Industrial Activities Handbook) to be consistent with promulgated construction and development effluent limitation guidelines.

(x) The construction site inspections required in Part I.D.5.a.(iii) may be carried out in conjunction with the permittee's building code inspections using a screening prioritization process.

Table 2. Construction Site Stormwater Runoff Control - Program Development and Implementation Schedules

Activity	Permittee Class				
	A Phase I MS4s	**B** Phase II MS4s (2000 Census)	**C** New Phase II MS4s (2010 Census **)	**D** MS4s within Indian Lands	**Cooperative (*)** Any Permittee with cooperative programs
Development of an ordinance or other regulatory mechanism as required in Part I.D.5.a.(ii)(a)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Eighteen (18) months from effective date of the permit
Develop requirements and procedures as required in Part I.D.5.a.(ii)(b) through in Part I.D.5.a.(ii)(h)	Ten (10) months from effective date of permit	Thirteen (13) months from effective date of permit	Sixteen (16) months from effective date of permit	Sixteen (16) months from effective date of permit	Eighteen (18) months from effective date of permit
Annually conduct site inspections of 100 percent of all construction projects cumulatively disturbing one (1) or more acres as required in Part I.D.5.a.(iii)	Ten (10) months from effective date of permit	Start Thirteen (13) months from effective date of permit and annually thereafter	Start Sixteen (16) months from effective date of permit and annually thereafter	Start eighteen (18) months from effective date of permit and thereafter	Start two (2) years from effective date of permit and thereafter
Coordinate with all departments and boards with jurisdiction over the planning, review, permitting, or approval of public and private construction projects/activities within the permit area as required in Part I.D.5.a.(iv)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	Twelve (12) months from effective date of permit	Twelve (12) months from effective date of permit	Fourteen (14) months from effective date of permit
Evaluation of GI/LID/Sustainable practices in site plan reviews as required in Part I.D.5.a.(v)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	Twelve (12) months from effective date of permit	Twelve (12) months from effective date of permit	Fourteen (14) months from effective date of permit
Update the SWMP document and annual report as required in Part I.D.5.a.(vi) and in Part I.D.5.a.(vii)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary
Enhance the program to include program elements in Part I.D.5.a.(viii) through Part I.D.5.a.(x)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs.
(**) or MS4s designated by the Director
Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

b. Post-Construction Stormwater Management in New Development and Redevelopment

(i) The permittee must develop, revise, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the MS4. The program must ensure that controls are in place that would prevent or minimize water quality impacts. **Permittees previously covered under NMS000101 or NMR040000 must continue existing programs, updating as necessary, to comply with the requirements of this permit.** (Note: Highway Departments and Flood Control Authorities may only apply the post-construction stormwater management program to the permittee's own construction projects)

(ii) The program must include the development, implementation, and enforcement of, at a minimum:

(a) Strategies which include a combination of structural and/or non-structural best management practices (BMPs) to control pollutants in stormwater runoff.

(b) An ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State, Tribal or local law. The ordinance or policy must:

Incorporate a stormwater quality design standard that manages on-site the 90th percentile storm event discharge volume associated with new development sites and 80th percentile storm event discharge volume associated with redevelopment sites, through stormwater controls that infiltrate, evapotranspire the discharge volume, except in instances where full compliance cannot be achieved, as provided in Part I.D.5.b.(v). The stormwater from rooftop discharge may be harvested and used on-site for non-commercial use. Any controls utilizing impoundments that are also used for flood control that are located in areas where the New Mexico Office of the State Engineer requirements at NMAC 19.26.2.15 (see also Section 72-5-32 NMSA) apply must drain within 96 hours unless the state engineer has issued a waiver to the owner of the impoundment.

Options to implement the site design standard include, but not limited to: management of the discharge volume achieved by canopy interception, soil amendments, rainfall harvesting, rain tanks and cisterns, engineered infiltration, extended filtration, dry swales, bioretention, roof top disconnections, permeable pavement, porous concrete, permeable pavers, reforestation, grass channels, green roofs and other appropriate techniques, and any combination of these practices, including implementation of other stormwater controls used to reduce pollutants in stormwater (e.g., a water quality facility).

Estimation of the 90th or 80th percentile storm event discharge volume is included in EPA Technical Report entitled "*Estimating Predevelopment Hydrology in the Middle Rio Grande Watershed, New Mexico, EPA Publication Number 832-R-14-007*". Permittees can also estimate:

Option A: a site specific 90th or 80th percentile storm event discharge volume using methodology specified in the referenced EPA Technical Report.

Option B: a site specific pre-development hydrology and associated storm event discharge volume using methodology specified in the referenced EPA technical Report.

(c) The permittee must ensure the appropriate implementation of the structural BMPs by considering some or all of the following: pre-construction review of BMP designs; inspections during construction to verify BMPs are built as designed; post-construction inspection and maintenance of BMPs; and penalty provisions for the noncompliance with preconstruction BMP design; failure to construct BMPs

in accordance with the agreed upon pre-construction design; and ineffective post-construction operation and maintenance of BMPs;

(d) The permittee must ensure that the post-construction program requirements are constantly reviewed and revised as appropriate to incorporate improvements in control techniques;

(e) Procedure to develop and implement an educational program for project developers regarding designs to control water quality effects from stormwater, and a training program for plan review staff regarding stormwater standards, site design techniques and controls, including training regarding GI/LID/Sustainability practices. Training may be developed independently or obtained from outside resources, i.e. federal, state, or local experts;

(f) Procedures for site inspection and enforcement to ensure proper long-term operation, maintenance, and repair of stormwater management practices that are put into place as part of construction projects/activities. Procedure(s) shall include the requirement that as-built plans be submitted within ninety (90) days of completion of construction projects/activities that include controls designed to manage the stormwater associated with the completed site (post-construction stormwater management). Procedure(s) may include the use of dedicated funds or escrow accounts for development projects or the adoption by the permittee of all privately owned control measures. This may also include the development of maintenance contracts between the owner of the control measure and the permittee. The maintenance contract shall include verification of maintenance practices by the owner, allows the MS4 owner/operator to inspect the maintenance practices, and perform maintenance if inspections indicate neglect by the owner;

(g) Procedures to control the discharge of pollutants related to commercial application and distribution of pesticides, herbicides, and fertilizers where permittee(s) hold jurisdiction over lands not directly owned by that entity (e.g., incorporated city). The procedures must ensure that herbicides and pesticides applicators doing business within the permittee's jurisdiction have been properly trained and certified, are encouraged to use the least toxic products, and control use and application rates according to the applicable requirements; and

(h) Procedure or system to review and update, as necessary, the existing program to ensure that stormwater controls or management practices for new development and redevelopment projects/activities continue to meet the requirements and objectives of the permit.

(iii) The permittee must coordinate with all departments and boards with jurisdiction over the planning, review, permitting, or approval of public and private new development and redevelopment projects/activities within the permit area to ensure the hydrology associated with new development and redevelopment sites mimic to the extent practicable the pre-development hydrology of the previously undeveloped site, except in instances where the pre-development hydrology requirement conflicts with applicable water rights appropriation requirements. For purposes of this permit, pre-development hydrology shall be met by capturing the 90th percentile storm event runoff (consistent with any limitations on that capture) which under undeveloped natural conditions would be expected to infiltrate or evapotranspirate on-site and result in little, if any, off-site runoff. (Note: This permit does not prevent permittees from requiring additional controls for flood control purposes.) Planning documents include, but are not limited to: comprehensive or master plans, subdivision ordinances, general land use plan, zoning code, transportation master plan, specific area plans, such as sector plan, site area plans, corridor plans, or unified development ordinances.

(iv) The permittee must assess all existing codes, ordinances, planning documents and other applicable regulations, for impediments to the use of GI/LID/Sustainable practices. The assessment shall include a list of the identified impediments, necessary regulation changes, and recommendations and proposed schedules to incorporate policies and standards to relevant documents and procedures to maximize infiltration, recharge, water harvesting, habitat improvement, and hydrological management of stormwater runoff as allowed under the applicable water rights appropriation requirements. The permittee must develop a report of the assessment findings, which is to be used to provide information to the permittee, of the regulation changes necessary to remove impediments and allow implementation of these practices.

(v) Alternative Compliance for Infeasibility due to Site Constrains:

(a) Infeasibility to manage the design standard volume specified in Part I(D)(5)(b)(ii)(b), or a portion of the design standard volume, onsite may result from site constraints including the following:

A. too small a lot outside of the building footprint to create the necessary infiltrative capacity even with amended soils;

B. soil instability as documented by a thorough geotechnical analysis;

C. a site use that is inconsistent with capture and reuse of storm water;

D. other physical conditions; or,

E. to comply with applicable requirements for on-site flood control structures leaves insufficient area to meet the standard.

(b) A determination that it is infeasible to manage the design standard volume specified in Part I.D.5.b.(ii)(b), or a portion of the design standard volume, on site may not be based solely on the difficulty or cost of implementing onsite control measures, but must include multiple criteria that rule out an adequate combination of the practices set forth in Part I.D,5.b.(v).

(c) This permit does not prevent imposition of more stringent requirements related to flood control. Where both the permittee's site design standard ordinance or policy and local flood control requirements on site cannot be met due to site conditions, the standard may be met through a combination of on-site and off-site controls.

(d) Where applicable New Mexico water law limits the ability to fully manage the design standard volume on site, measures to minimize increased discharge consistent with requirements under New Mexico water law must still be implemented.

(e) In instances where an alternative to compliance with the standard on site is chosen, technical justification as to the infeasibility of on-site management of the entire design standard volume, or a portion of the design standard volume, is required to be documented by submitting to the permittee a site-specific hydrologic and/or design analysis conducted and endorsed by a registered professional engineer, geologist, architect, and/or landscape architect.

(f) When a Permittee determines a project applicant has demonstrated infeasibility due to site constraints specified in Part I.D.5.b.(v) to manage the design standard volume specified in Part I.D.5.b.(ii).(b) or a portion of the design standard volume on-site, the Permittee shall require one of the following mitigation options:

A. Off-site mitigation. The off-site mitigation option only applies to redevelopment sites and cannot be applied to new development. Management of the standard volume, or a portion of the volume, may be implemented at another location within the MS4 area, approved by the permittee. The permittee shall identify priority areas within the MS4 in which mitigation projects can be completed. The permittee shall determine who will be responsible for long-term maintenance on off-site mitigation projects.

B. Ground Water Replenishment Project: Implementation of a project that has been determined to provide an opportunity to replenish regional ground water supplies at an offsite location.

C. Payment in lieu. Payment in lieu may be made to the permittee, who will apply the funds to a public stormwater project. MS4s shall maintain a publicly accessible database of approved projects for which these payments may be used.

D. *Other.* In a situation where alternative options A through C above are not feasible and the permittee wants to establish another alternative option for projects, the permitte may submit to the EPA for approval, the alternative option that meets the standard.

(vi) The permittee must estimate the number of acres of impervious area (IA) and directly connected impervious area (DCIA). For the purpose of his part, IA includes conventional pavements, sidewalks, driveways, roadways, parking lots, and rooftops. DCIA is the portion of IA with a direct hydraulic connection to the permittee's MS4 or a waterbody via continuous paved surfaces, gutters, pipes, and other impervious features. DCIA typically does not include isolated impervious areas with an indirect hydraulic connection to the MS4 (e.g., swale or detention basin) or that otherwise drain to a pervious area.

(vii) The permittee must develop an inventory and priority ranking of MS4-owned property and infrastructure (including public right-of-way) that may have the potential to be retrofitted with control measures designed to control the frequency, volume, and peak intensity of stormwater discharges to and from its MS4. In determining the potential for retrofitting, the permittee shall consider factors such as the complexity and cost of implementation, public safety, access for maintenance purposes, subsurface geology, depth to water table, proximity to aquifers and subsurface infrastructure including sanitary sewers and septic systems, and opportunities for public use and education under the applicable water right requirements and restrictions. In determining its priority ranking, the permittee shall consider factors such as schedules for planned capital improvements to storm and sanitary sewer infrastructure and paving projects; current storm sewer level of service and control of discharges to impaired waters, streams, and critical receiving water (drinking water supply sources);

(viii) The permittee must incorporate watershed protection elements into relevant policy and/or planning documents as they come up for regular review. If a relevant planning document is not scheduled for review during the term of this permit, the permittee must identify the elements that cannot be implemented until that document is revised, and provide to EPA and NMED a schedule for incorporation and implementation not to exceed five years from the effective date of this permit. As applicable to each permittee's MS4 jurisdiction, policy and/or planning documents must include the following:

(a) A description of master planning and project planning procedures to control the discharge of pollutants to and from the MS4.

(b) Minimize the amount of impervious surfaces (roads, parking lots, roofs, etc.) within each watershed, by controlling the unnecessary creation, extension and widening of impervious parking lots, roads and associated development. The permittee may evaluate the need to add impervious surface on a case-by-case basis and seek to identify alternatives that will meet the need without creating the impervious surface.

(c) Identify environmentally and ecologically sensitive areas that provide water quality benefits and serve critical watershed functions within the MS4 and ensure requirements to preserve, protect, create and/or restore these areas are developed and implemented during the plan and design phases of projects in these identified areas. These areas may include, but are not limited to critical watersheds, floodplains, and areas with endangered species concerns and historic properties. Stakeholders shall be consulted as appropriate.

(d) Implement stormwater management practices that minimize water quality impacts to streams, including disconnecting direct discharges to surface waters from impervious surfaces such as parking lots.

(e) Implement stormwater management practices that protect and enhance groundwater recharge as allowed under the applicable water rights laws.

(f) Seek to avoid or prevent hydromodification of streams and other water bodies caused by development, including roads, highways, and bridges.

(g) Develop and implement policies to protect native soils, prevent topsoil stripping, and prevent compaction of soils.

(h) The program must be specifically tailored to address local community needs (e.g. protection to drinking water sources, reduction of water quality impacts) and must be designed to attempt to maintain pre-development runoff conditions.

(ix) The permittee must update the SWMP as necessary to include a description of the mechanism(s) utilized to comply with each of the elements required in Part I.D.5.b.(i) throughout Part I.D.5.b.(viii) as well as the citations and descriptions of design standards for structural and non-structural controls to control pollutants in stormwater runoff, including discussion of the methodology used during design for estimating impacts to water quality and selecting structural and non-structural controls. Description of measurable goals for each BMP (structural or non-structural) or each stormwater control must be included in the SWMP.

(x) The permittee shall assess the overall success of the program, and document the program effectiveness in the annual report. The following information must be included in each annual report:

(a) Include a summary and analysis of all maintenance, inspections and enforcement, and the number and frequency of inspections performed annually.

(b) A cumulative listing of the annual modifications made to the Post-Construction Stormwater Management Program during the permit term, and a cumulative listing of annual revisions to administrative procedures made or ordinances enacted during the permit term.

(c) According to the schedule presented in the Program Development and Implementation Schedule in Table 3, the permittee must

A. Report the number of MS4-owned properties and infrastructure that have been retrofitted with control measures designed to control the frequency, volume, and peak intensity of stormwater discharges. The permittee may also include in its annual report non-MS4 owned property that has been retrofitted with control measures designed to control the frequency, volume, and peak intensity of stormwater discharges.

B. As required in Part I.D.5.b.(vi), report the tabulated results for IA and DCIA and its estimation methodology. In each subsequent annual report, the permittee shall estimate the number of acres of IA and DCIA that have been added or removed during the prior year. The permittee shall include in its estimates the additions and reductions resulting from development, redevelopment, or retrofit projects undertaken directly by the permittee; or by private developers and other parties in a voluntary manner on in compliance with the permittee's regulations.

Program Flexibility Elements:

(xi) The permittee may use storm water educational materials locally developed or provided by EPA (refer to http://water.epa.gov/polwaste/npdes/swbmp/index.cfm, http://www.epa.gov/smartgrowth/parking.htm, and http://www.epa.gov/smartgrowth/stormwater.htm); the NMED; environmental, public interest or trade organizations; and/or other MS4s.

(xii) When choosing appropriate BMPs, the permittee may participate in locally-based watershed planning efforts, which attempt to involve a diverse group of stakeholders including interested citizens. When developing a program that is consistent with this measure's intent, the permittee may adopt a planning process that identifies the municipality's program goals (e.g., minimize water quality impacts resulting from post-construction runoff from new development and redevelopment), implementation strategies (e.g., adopt a combination of structural and/or non-structural BMPs), operation and maintenance policies and procedures, and enforcement procedures.

(xiii) The permittee may incorporate the following elements in the Post-Construction Stormwater Management in New Development and Redevelopment program required in Part I.D.5.b.(ii)(b):

(a) Provide requirements and standards to direct growth to identified areas to protect environmentally and ecologically sensitive areas such as floodplains and/or other areas with endangered species and historic properties concerns;

(b) Include requirements to maintain and/or increase open space/buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation; and

(c) Encourage infill development in higher density urban areas, and areas with existing storm sewer infrastructure.

Table 3. Post-Construction Stormwater Management in New Development and Redevelopment - Program Development and Implementation Schedules

Activity	Permittee Class				
	A **Phase I MS4s**	**B** **Phase II MS4s (2000 Census)**	**C** **New Phase II MS4s (2010 Census **)**	**D** **MS4s within Indian Lands**	**Cooperative (*)** **Any Permittee with cooperative programs**
Development of strategies as required in Part I.D.5.b.(ii).(a)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	Twelve (12) months from effective date of permit	Twelve (12) months from effective date of permit	Fourteen (14) months from effective date of permit
Development of an ordinance or other regulatory mechanism as required in Part I.D.5.b.(ii).(b)	Twenty (24) months from effective date of permit	Thirty (30) months from effective date of permit	Thirty six (36) months from effective date of permit	Thirty six (36) months from effective date of permit	Thirty six (36) months from effective date of permit
Implementation and enforcement, via the ordinance or other regulatory mechanism, of site design standards as required in Part I.D.5.b.(ii).(b)	Within thirsty six (36) months from effective date of the permit	Within forty two (42) months from the effective date of the permit	Within forty eight (48) months from effective date of the permit	Within forty eight (48) months from effective date of the permit	Within forty eight (48) months from effective date of the permit
Ensure appropriate implementation of structural controls as required in Part I.D.5.b.(ii).(c) and Part I.D.5.b.(ii).(d)	Ten (10) months from effective date of permit	One (1) year from effective date of permit	Two (2) years from effective date of permit	Two (2) years from effective date of permit	Thirty (30) months from effective date of permit
Develop procedures as required in Part I.D.5.b.(ii).(e), Part I.D.5.b.(ii).(f), Part I.D.5.b.(ii).(g), and Part I.D.5.b.(ii).(h)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Eighteen (18) months from effective date of permit

Coordinate internally with all departments and boards with jurisdiction over the planning, review, permitting, or approval of public and private construction projects/activities within the permit area as required in Part I.D.5.b.(iii)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	Eleven (11) months from effective date of permit	Eleven (11) months from effective date of permit	One (1) year from effective date of permit
As required in Part I.D.5.b.(iv), the permittee must assess all existing codes, ordinances, planning documents and other applicable regulations, for impediments to the use of GI/LID/Sustainable practices	Ten (10) months from effective date of permit	One (1) year from effective date of permit	Eighteen (18) months from effective date of permit	Eighteen (18) months from effective date of permit	Two (2) years from effective date of permit
As required in Part I.D.5.b.(iv), develop and submit a report of the assessment findings on GI/LID/Sustainable practices.	Eleven (11) months from effective date of permit	Eighteen (18) months from effective date of permit	Two (2) years from effective date of permit	Two (2) years from effective date of permit	Twenty seven (27) months from effective date of permit
Estimation of the number of acres of IA and DCIA as required in Part I.D.5.b.(vi)	Ten (10) months from effective date of permit	One (1) year from effective date of permit	Two (2) years from effective date of permit	Two (2) years from effective date of permit	Thirty (30) months from effective date of permit
Inventory and priority ranking as required in section in Part I.D.5.b.(vii)	Within fifteen (15) months from effective date of the permit	Within twenty four (24) months from effective date of the permit	Within thirty six (36) months from effective date of the permit	Within thirty six (36) months from effective date of the permit	Within forty two (42) months from effective date of the permit
Incorporate watershed protection elements as required in Part I.D.5.b.(viii)	Ten (10) months from effective date of permit	One (1) year from effective date of permit	Two (2) years from effective date of permit	Two (2) years from effective date of permit	Thirty (30) months from effective date of permit
Update the SWMP document and annual report as required in Part I.D.5.b.(ix) and Part I.D.5.b.(x).	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary
Enhance the program to include program elements in Part I.D.5.b.(xi) and Part I.D.5.b.(xii)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs.
(**) or MS4s designated by the Director
Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

c. Pollution Prevention/Good Housekeeping for Municipal/Co-permittee Operations.

(i) The permittee must develop, revise and implement an operation and maintenance program that includes a training component and the ultimate goal of preventing or reducing pollutant runoff from municipal operations. **Permittees previously covered under NMS000101 or NMR040000 must continue existing programs while updating those programs, as necessary, to comply with the requirements of this permit**. The program must include:

(a) Development and implementation of an employee training program to incorporate pollution prevention and good housekeeping techniques into everyday operations and maintenance activities. The employee training program must be designed to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance. The permittee must also develop a tracking procedure and ensure that employee turnover is considered when determining frequency of training;

(b) Maintenance activities, maintenance schedules, and long term inspections procedures for structural and non-structural storm water controls to reduce floatable, trash, and other pollutants discharged from the MS4.

(c) Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, fleet or maintenance shops with outdoor storage areas, salt/sand storage locations, snow disposal areas operated by the permittee, and waste transfer stations;

(d) Procedures for properly disposing of waste removed from the separate storm sewers and areas listed in Part I.D.5.c.(i).(c) (such as dredge spoil, accumulated sediments, floatables, and other debris); and

(e) Procedures to ensure that new flood management projects assess the impacts on water quality and examine existing projects for incorporating additional water quality protection devices or practices.

Note: The permittee may use training materials that are available from EPA, NMED, Tribe, or other organizations.

(ii) The Pollution Prevention/Good Housekeeping program must include the following elements:

(a) Develop or update the existing list of all stormwater quality facilities by drainage basin, including location and description;

(b) Develop or modify existing operational manual for de-icing activities addressing alternate materials and methods to control impacts to stormwater quality;

(c) Develop or modify existing program to control pollution in stormwater runoff from equipment and vehicle maintenance yards and maintenance center operations located within the MS4;

(d) Develop or modify existing street sweeping program. Assess possible benefits from changing frequency or timing of sweeping activities or utilizing different equipment for sweeping activities;

(e) A description of procedures used by permittees to target roadway areas most likely to contribute pollutants to and from the MS4 (i.e., runoff discharges directly to sensitive receiving water, roadway receives majority of de-icing material, roadway receives excess litter, roadway receives greater loads of oil and grease);

(f) Develop or revise existing standard operating procedures for collection of used motor vehicle fluids (at a minimum oil and antifreeze) and toxics (including paint, solvents, fertilizers, pesticides, herbicides,

and other hazardous materials) used in permittee operations or discarded in the MS4, for recycle, reuse, or proper disposal;

(g) Develop or revised existing standard operating procedures for the disposal of accumulated sediments, floatables, and other debris collected from the MS4 and during permittee operations to ensure proper disposal;

(h) Develop or revised existing litter source control programs to include public awareness campaigns targeting the permittee audience; and

(i) Develop or review and revise, as necessary, the criteria, procedures and schedule to evaluate existing flood control devices, structures and drainage ways to assess the potential of retrofitting to provide additional pollutant removal from stormwater. Implement routine review to ensure new and/or innovative practices are implemented where applicable.

(j) Enhance inspection and maintenance programs by coordinating with maintenance personnel to ensure that a target number of structures per basin are inspected and maintained per quarter;

(k) Enhance the existing program to control the discharge of floatables and trash from the MS4 by implementing source control of floatables in industrial and commercial areas;

(l) Include in each annual report, a cumulative summary of retrofit evaluations conducted during the permit term on existing flood control devices, structures and drainage ways to benefit water quality. Update the SWMP to include a schedule (with priorities) for identified retrofit projects;

(m) Flood management projects: review and revise, as necessary, technical criteria guidance documents and program for the assessment of water quality impacts and incorporation of water quality controls into future flood control projects. The criteria guidance document must include the following elements:

A. Describe how new flood control projects are assessed for water quality impacts.

B. Provide citations and descriptions of design standards that ensure water quality controls are incorporated in future flood control projects.

C. Include method for permittees to update standards with new and/or innovative practices.

D. Describe master planning and project planning procedures and design review procedures.

(n) Develop procedures to control the discharge of pollutants related to the storage and application of pesticides, herbicides, and fertilizers applied, by the permittee's employees or contractors, to public right-of-ways, parks, and other municipal property. The permittee must provide an updated description of the data monitoring system for all permittee departments utilizing pesticides, herbicides and fertilizers.

(iii) Comply with the requirements included in the EPA Multi Sector General Permit (MSGP) to control runoff from industrial facilities (as defined in 40 CFR 122.26(b)(14)(i)-(ix) and (xi)) owned or operated by the permittees and ultimately discharge to the MS4. The permittees must develop or update:

(a) A list of municipal/permittee operations impacted by this program,

(b) A map showing the industrial facilities owned and operated by the MS4,

(c) A list of the industrial facilities (other than large construction activities defined as industrial activity) that will be included in the industrial runoff control program by category and by basin. The list must include the permit authorization number or a MSGP NOI ID for each facility as applicable.

(iv) The permittee must include in the SWMP a description of the mechanism(s) utilized to comply with each of the elements required in Part I.D.5.c.(i) throughout Part I.D.5.c.(iii) and its corresponding measurable goal.

(v) The permittee shall assess the overall success of the program, and document the program effectiveness in the annual report.

Table 4. Pollution Prevention/Good Housekeeping for Municipal/Co-permittee Operations - Program Development and Implementation Schedules

Activity	Permittee Class				
	A Phase I MS4s	**B** Phase II MS4s (2000 Census)	**C** New Phase II MS4s (2010 Census **)	**D** MS4s within Indian Lands	**Cooperative (*)** Any Permittee with cooperative programs
-Develop or update the Pollution Prevention/Good House Keeping program to include the elements in Part I.D.5.c.(i)	Ten (10) months from effective date of the permit	Twelve (12) months from effective date of the permit	Fourteen (14) months from effective date of the permit	Fourteen (14) months from effective date of the permit	Eighteen (18) months from effective date of the permit
-Enhance the program to include the elements in Part I.D.5.c.(ii)	Ten (10) months from effective date of the permit	One (1) year from effective date of the permit	Two (2) years from effective date of the permit	Two (2) years from effective date of the permit	Thirty (30) months from effective date of the permit
-Develop or update a list and a map of industrial facilities owned or operated by the permittee as required in Part I.D.5.c.(iii)	Ten (10) months from effective date of the permit	Eleven (11) months from effective date of the permit	One (1) year from effective date of the permit	One (1) year from effective date of the permit	Eighteen (18) months from effective date of the permit
Update the SWMP document and annual report as required in Part I.D.5.c.(iv) and Part I.D.5.c.(v)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs
(**) or MS4s designated by the Director
Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

d. Industrial and High Risk Runoff (Applicable only to Class A permittees)

(i) The permittee must control through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from sites of industrial activity as defined in 40 CFR 122.26(b)(14)(i)-(ix) and (xi). If no such industrial activities are in a permittees jurisdiction, that permittee may certify that this program element does not apply.

(ii) The permittee must continue implementation and enforcement of the Industrial and High Risk Runoff program, assess the overall success of the program, and document both direct and indirect measurements of program effectiveness in the annual report. The program shall include:

(a) A description of a program to identify, monitor, and control pollutants in stormwater discharges to the MS4 from municipal landfills; other treatment, storage, or disposal facilities for municipal waste (e.g. transfer stations, incinerators, etc.); hazardous waste treatment, storage, disposal and recovery facilities; facilities that are subject to EPCRA Title III, Section 313; and any other industrial or commercial discharge the permittee(s) determines are contributing a substantial pollutant loading to the

MS4. (Note: If no such facilities are in a permittees jurisdiction, that permittee may certify that this program element does not apply.); and

(b) Priorities and procedures for inspections and establishing and implementing control measures for such discharges.

(iii) Permittees must comply with the monitoring requirements specified in Part III.A.4;

(iv) The permittee must modify the following as necessary:

(a) The list of the facilities included in the program, by category and basin;

(b) Schedules and frequency of inspection for listed facilities. Facility inspections may be carried out in conjunction with other municipal programs (e.g. pretreatment inspections of industrial users, health inspections, fire inspections, etc.), but must include random inspections for facilities not normally visited by the municipality;

(c) The priorities for inspections and procedures used during inspections (e.g. inspection checklist, review for NPDES permit coverage; review of stormwater pollution prevention plan; etc.); and

(d) Monitoring frequency, parameters and entity performing monitoring and analyses (MS4 permittees or subject facility). The monitoring program may include a waiver of monitoring for parameters at individual facilities based on a "no-exposure" certification;

(v) The permittee must include in the SWMP a description of the mechanism(s) utilized to comply with each of the elements required in Part I.D.5.d.(i) throughout Part I.D.5.d.(iv) and its corresponding measurable goal.

(vi) The permittee shall assess the overall success of the program, and document the program effectiveness in the annual report.

Program Flexibility Elements:

(vii) The permittee may:

(a) Use analytical monitoring data, on a parameter-by-parameter basis, that a facility has collected to comply with or apply for a State or NPDES discharge permit (other than this permit), so as to avoid unnecessary cost and duplication of effort;

(b) Allow the facility to test only one (1) outfall and to report that the quantitative data also apply to the substantially identical outfalls if:

A. A Type 1 or Type 2 industrial facility has two (2) or more outfalls with substantially identical effluents, and

B. Demonstration by the facility that the stormwater outfalls are substantially identical, using one (1) or all of the following methods for such demonstration. The NPDES Stormwater Sampling Guidance Document (EPA 833-B-92-001), available on EPA's website at provides detailed guidance on each of the three options: (1) submission of a narrative description and a site map; (2) submission of matrices; or (3) submission of model matrices.

(c) Accept a copy of a "no exposure" certification from a facility made to EPA under 40 CFR §122.26(g), in lieu of analytic monitoring.

Table 5: Industrial and High Risk Runoff - Program Development and Implementation Schedules:

Activity	Permittee Class	
	A **Phase I MS4s**	**Cooperative (*)** **Any Permittee with cooperative programs**
Ordinance (or other control method) as required in Part I.D.5.d.(i)	Ten (10) months from effective date of the permit	Twelve (12) months from effective date of the permit
Continue implementation and enforcement of the Industrial and High Risk Runoff program, assess the overall success of the program, and document both direct and indirect measurements of program effectiveness in the annual report as required in Part I.D.5.d.(ii)	Ten (10) months from effective date of the permit	Twelve (12) months from effective date of the permit
Meet the monitoring requirements in Part I.D.5.d.(iii)	Ten (10) months from effective date of the permit	Twelve (12) months from effective date of the permit
Include requirements in Part I.D.5.d.(iv)	Ten (10) months from permit effective date of the permit	Twelve (12) months from effective date of the permit
Update the SWMP document and annual report as required in Part I.D.5.d.(v) and Part I.D.5.d.(vi)	Update as necessary	Update as necessary
Enhance the program to include requirements in Part I.D.5.d.(vii)	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs. Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

e. Illicit Discharges and Improper Disposal

(i) The permittee shall develop, revise, implement, and enforce a program to detect and eliminate illicit discharges (as defined at 40 CFR 122.26(b)(2)) entering the MS4. **Permittees previously covered under NMS000101 or NMR040000 must continue existing programs while updating those programs, as necessary, to comply with the requirements of this permit**. The permittee must:

(a) Develop, if not already completed, a storm sewer system map, showing the names and locations of all outfalls as well as the names and locations of all waters of the United States that receive discharges from those outfalls. Identify all discharges points into major drainage channels draining more than twenty (20) percent of the MS4 area;

(b) To the extent allowable under State, Tribal or local law, effectively prohibit, through ordinance or other regulatory mechanism, non-stormwater discharges into the MS4, and implement appropriate enforcement procedures and actions;

(c) Develop and implement a plan to detect and address non-stormwater discharges, including illegal dumpling, to the MS4. The permittee must include the following elements in the plan:

A. Procedures for locating priority areas likely to have illicit discharges including field test for selected pollutant indicators (ammonia, boron, chlorine, color, conductivity, detergents, *E. coli*, enterococci, total coliform, fluoride, hardness, pH, potassium, conductivity, surfactants), and visually screening outfalls during dry weather;

B. Procedures for enforcement, including enforcement escalation procedures for recalcitrant or repeat offenders;

C. Procedures for removing the source of the discharge;

D. Procedures for program evaluation and assessment; and

E. Procedures for coordination with adjacent municipalities and/or state, tribal, or federal regulatory agencies to address situations where investigations indicate the illicit discharge originates outside the MS4 jurisdiction.

(d) Develop an education program to promote, publicize, and facilitate public reporting of illicit connections or discharges, and distribution of outreach materials. The permittee shall inform public employees, businesses and the general public of hazards associated with illegal discharges and improper disposal of waste.

(e) Establish a hotline to address complaints from the public.

(f) Investigate suspected significant/severe illicit discharges within forty-eight (48) hours of detection and all other discharges as soon as practicable; elimination of such discharges as expeditiously as possible; and, requirement of immediate cessation of illicit discharges upon confirmation of responsible parties.

(g) Review complaint records for the last permit term and develop a targeted source reduction program for those illicit discharge/improper disposal incidents that have occurred more than twice in two (2) or more years from different locations. (Applicable only to class A and B permittees)

(h) If applicable, implement the program using the priority ranking develop during last permit term

(ii) The permittee shall address the following categories of non-stormwater discharges or flows (e.g., illicit discharges) only if they are identified as significant contributors of pollutants to the MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(90)), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water.

Note: Discharges or flows from fire fighting activities are excluded from the effective prohibitions against non-stormwater and need only be addressed where they are identified a significant sources of pollutants to water of the United States).

(iii) The permittee must screen the entire jurisdiction at least once every five (5) years and high priority areas at least once every year. High priority areas include any area where there is ongoing evidence of illicit discharges or dumping, or where there are citizen complaints on more than five (5) separate events within twelve (12) months. The permittee must:

(a) Include in its SWMP document a description of the means, methods, quality assurance and controls protocols, and schedule for successfully implementing the required screening, field monitoring, laboratory analysis, investigations, and analysis evaluation of data collected.

(b) Comply with the dry weather screening program established in Table 6 and the monitoring requirements specified in Part III.A.2.

(c) If applicable, implement the priority ranking system develop in previous permit term.

(iv) Waste Collection Programs: The permittee must develop, update, and implement programs to collect used motor vehicle fluids (at a minimum, oil and antifreeze) for recycle, reuse, or proper disposal, and to collect household hazardous waste materials (including paint, solvents, fertilizers, pesticides, herbicides, and other hazardous materials) for recycle, reuse, or proper disposal. Where available, collection programs operated by third parties may be a component of the programs. Permittees shall enhance these programs by establishing the following elements as a goal in the SWMP:

A. Increasing the frequency of the collection days hosted;

B. Expanding the program to include commercial fats, oils and greases; and

C. Coordinating program efforts between applicable permittee departments.

(v) Spill Prevention and Response. The permittee must develop, update and implement a program to prevent, contain, and respond to spills that may discharge into the MS4. The permittees must continue existing programs while updating those programs, as necessary, to comply with the requirements of this permit. The Spill Prevention and Response program shall include:

(a) Where discharge of material resulting from a spill is necessary to prevent loss of life, personal injury, or severe property damage, the permittee(s) shall take, or insure the party responsible for the spill takes, all reasonable steps to control or prevent any adverse effects to human health or the environment: and

(b) The spill response program may include a combination of spill response actions by the permittee (and/or another public or private entity), and legal requirements for private entities within the permittee's municipal jurisdiction.

(vi) The permittee must include in the SWMP a description of the mechanism(s) utilized to comply with each of the elements required in Part I.D.5.e.(i) throughout Part I.D.5.e.(v) and its corresponding measurable goal. A description of the means, methods, quality assurance and controls protocols, and schedule for successfully implementing the required screening, field monitoring, laboratory analysis, investigations, and analysis evaluation of data collected

(vii) The permittee shall assess the overall success of the program, and document the program effectiveness in the annual report.

(viii) The permittee must expeditiously revise as necessary, within nine (9) months from the effective date of the permit, the existing permitting/certification program to ensure that any entity applying for the use of Right of Way implements controls in their construction and maintenance procedures to control pollutants entering the MS4. (Only applicable to NMDOT)

Program Flexibility Elements

(ix) The permittee may:

(a) Divide the jurisdiction into assessment areas where monitoring at fewer locations would still provide sufficient information to determine the presence or absence of illicit discharges within the larger area;

(b) Downgrade high priority areas after the area has been screened at least once and there are citizen complaints on no more than five (5) separate events within a twelve (12) month period;

(c) Rely on a cooperative program with other MS4s for detection and elimination of illicit discharges and illegal dumping;

(d) If participating in a cooperative program with other MS4s, required detection program frequencies may be based on the combined jurisdictional area rather than individual jurisdictional areas and may use assessment areas crossing jurisdictional boundaries to reduce total number of screening locations (e.g., a shared single screening location that would provide information on more than one jurisdiction); and

(e) After screening a non-high priority area once, adopt an "in response to complaints only" IDDE for that area provided there are citizen complaints on no more than two (2) separate events within a twelve (12) month period.

(f) Enhance the program to utilize procedures and methodologies consistent with those described in "Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments."

Table 6. Illicit Discharges and Improper Disposal - Program Development and Implementation Schedules

Activity	Permittee Class				
	A Phase I MS4s	**B** Phase II MS4s (2000 Census)	**C** New Phase II MS4s (2010 Census ***)	**D** MS4s within Indian Lands	**Cooperative (*)** Any Permittee with cooperative programs
Mapping as required in Part I.D.5.e.(i)(a)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	Eleven (11) months from effective date of permit	Eleven (11) months from effective date of permit	Fourteen (14) months from effective date of permit
Ordinance (or other control method) as required in Part I.D.5.e.(i)(b)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	Two (2) years from effective date of permit	Two (2) years from effective date of permit	Thirty (30) months from effective date of permit
Develop and implement a IDDE plan as required in Part I.D.5.e.(i)(c)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	Two (2) years from effective date of permit	Two (2) years from effective date of permit	Thirty (30) months from effective date of permit
Develop an education program as required in Part I.D.5.e.(i)(d)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Eighteen (18) months from effective date of permit
Establish a hotline as required in Part I.D.5.e.(i)(e)	Update as necessary	Ten (10) months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Eighteen (18) months from effective date of permit
Investigate suspected significant/severe illicit discharges as required in Part I.D.5.e.(i)(f)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Eighteen (18) months from effective date of permit
Review complaint records and develop a targeted source reduction program as required in Part I.D.5.e.(i)(g)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	N/A	N/A	One (1) year from effective date of permit

Screening of system as required in Part I.D.5.e.(iii) as follows: a.) High priority areas**	1 / year	1 / year	1 / year	1 / year	1 / year
b.) Whole system	-Screen 20% of the MS4 per year	- Screen 20% of the MS4 per year	-Years 1 – 2: develop procedures as required in Part I.D.5.e.(i)(c) -Year 3: screen 30% of the MS4 -Year 4: screen 20% of the MS4 -Year 5: screen 50% of the MS4	-Years 1 – 2: develop procedures as required Part I.D.5.e.(i)(c) -Year 3: screen 30% of the MS4 -Year 4: screen 20% of the MS4 -Year 5: screen 50% of the MS4	-Years 1 – 3: develop procedures as require in Part I.D.5.e.(i)(c) -Year 4: screen 30% of the MS4 -Year 5: screen 70% of the MS4
Develop, update, and implement a Waste Collection Program as required in Part I.D.5.e.(iv)	Ten (10) months from effective date of permit	Eighteen (18) months from effective date of permit	Two (2) years from effective date of permit	Two (2) years from effective date of permit	Thirty (30) months from effective date of permit
Develop, update and implement a Spill Prevention and Response program to prevent, contain, and respond to spills that may discharge into the MS4 as required in Part I.D.5.e.(v)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Eighteen (18) months from effective date of permit
Update the SWMP document and annual report as required in Part I.D.5.e.(iii), Part I.D.5.e.(vi), and Part I.D.5.e.(vii).	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary
Enhance the program to include requirements in Part I.D.5.e.(ix)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs.
(**) High priority areas include any area where there is ongoing evidence of illicit discharges or dumpling, or where there are citizen complaints on more than five (5) separate events within twelve (12) months
(***) or MS4s designated by the Director
Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

f. Control of Floatables Discharges

(i) The permittee must develop, update, and implement a program to address and control floatables in discharges into the MS4. The floatables control program shall include source controls and, where necessary, structural controls. **Permittees previously covered under NMS000101 or NMR040000 must continue existing programs while updating those programs, as necessary, to comply with the requirements of this permit.** The following elements must be included in the program:

(a) Develop a schedule for implementation of the program to control floatables in discharges into the MS4 (Note: AMAFCA and the City of Albuquerque should update the schedule according to the findings of the 2005 AMAFCA/COA Floatable and Gross Pollutant Study and other studies); and

(b) Estimate the annual volume of floatables and trash removed from each control facility and characterize the floatable type.

(ii) The permittee must include in the SWMP a description of the mechanism(s) utilized to comply with each of the elements required in Part I.D.5.f.(i).

(iii) The permittee shall assess the overall success of the program, and document the program effectiveness in the annual report.

Table 7. Control of Floatables Discharges - Program Development and Implementation Schedules

Activity	Permittee Class				
	A Phase I MS4s	**B Phase II MS4s (2000 Census)**	**C New Phase II MS4s (2010 Census **)**	**D MS4s within Indian Lands**	**Cooperative (*) Any Permittee with cooperative programs**
- Develop a schedule to implement the program as required in Part I.D.5.f.(i)(a)	Ten (10) months from the effective date of the permit	Ten (10) months from the effective date of the permit	One (1) year from the effective date of the permit	One (1) year from the effective date of the permit	Eighteen (18) months from the effective date of the permit
-Estimate the annual volume of floatables and trash removed from each control facility and characterize the floatable type as required in Part I.D.5.f.(i)(b)	Ten (10) months from the effective date of the permit	One (1) year from the effective date of the permit	Two (2) years from the effective date of the permit	Two (2) years from the effective dae of the permit	Thirty (30) months from the effective date of the permit
Update the SWMP document and annual report as required in Part I.D.5.f.(ii) and Part I.D.5.f.(iii).	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs.
(**) or MS4s designated by the Director
Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

g. Public Education and Outreach on Stormwater Impacts

(i) The permittee shall, individually or cooperatively, develop, revise, implement, and maintain a comprehensive stormwater program to educate the community, employees, businesses, and the general public of hazards associated with the illegal discharges and improper disposal of waste and about the impact that stormwater discharges on local waterways, as well as the steps that the public can take to reduce pollutants in stormwater. **Permittees previously covered under NMS000101 and NMR040000 must continue existing programs while updating those programs, as necessary, to comply with the requirements of this permit.**

(ii) The permittee must implement a public education program to distribute educational knowledge to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff. The permittee must:

(a) Define the goals and objectives of the program based on high priority community-wide issues;

(b) Develop or utilize appropriate educational materials, such as printed materials, billboard and mass transit advertisements, signage at select locations, radio advertisements, television advertisements, and websites;

(c) Inform individuals and households about ensuring proper septic system maintenance, ensuring the proper use and disposal of landscape and garden chemicals including fertilizers and pesticides, protecting and restoring riparian vegetation, and properly disposing of used motor oil or household hazardous wastes;

(d) Inform individuals and groups how to become involved in local stream and beach restoration activities as well as activities that are coordinated by youth service and conservation corps or other citizen groups;

(e) Use tailored public education program, using a mix of locally appropriate strategies, to target specific audiences and communities. Examples of strategies include distributing brochures or fact sheets, sponsoring speaking engagements before community groups, providing public service announcements, implementing educational programs targeted at school age children, and conducting community-based projects such as storm drain stenciling, and watershed cleanups; and

(f) Use materials or outreach programs directed toward targeted groups of commercial, industrial, and institutional entities likely to have significant stormwater impacts. For example, providing information to restaurants on the impact of grease clogging storm drains and to garages on the impact of oil discharges. The permittee may tailor the outreach program to address the viewpoints and concerns of all communities, particularly minority and disadvantaged communities, as well as any special concerns relating to children. The permittee must make information available for non-English speaking residents, where appropriate.

(iii) The permittee must include the following information in the Stormwater Management Program (SWMP) document:

(a) A description of a program to promote, publicize, facilitate public reporting of the presence of illicit discharges or water quality associated with discharges from municipal separate storm sewers;

(b) A description of the education activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials; and

(c) A description of the mechanism(s) utilized to comply with each of the elements required in Part I.D.5.g.(i) and Part I.D.5.g.(ii) and its corresponding measurable goal.

(iv) The permittee must assess the overall success of the program, and document both direct and indirect measurements of program effectiveness in the Annual Report.

Program Flexibility Elements

(v) Where necessary to comply with the Minimum Control Measures established in Part I.D.5.g.(i) and Part I.D.5.g.(ii), the permittee should develop a program or modify/revise an existing education and outreach program to:

(a) Promote, publicize, and facilitate the use of Green Infrastructure (GI)/Low Impact Development (LID)/Sustainability practices; and

(b) Include an integrated public education program (including all permittee departments and programs within the MS4) regarding litter reduction, reduction in pesticide/herbicide use, recycling and proper

disposal (including yard waste, hazardous waste materials, and used motor vehicle fluids), and GI/LID/Sustainable practices (including xeriscaping, reduced water consumption, water harvesting practices allowed by the New Mexico State Engineer Office).

(vi) The permittee may collaborate or partner with other MS4 operators to maximize the program and cost effectiveness of the required outreach.

(vii) The education and outreach program may use citizen hotlines as a low-cost strategy to engage the public in illicit discharge surveillance.

(viii) The permittee may use stormwater educational materials provided by the State, Tribe, EPA, environmental, public interest or trade organizations, or other MS4s. The permittee may also integrate the education and outreach program with existing education and outreach programs in the Middle Rio Grande area. Example of existing programs include:

(a) Classroom education on stormwater;

A. Develop watershed map to help students visualize area impacted.

B. Develop pet-specific education

(b) Establish a water committee/advisor group;

(c) Contribute and participate in Stormwater Quality Team;

(d) Education/outreach for commercial activities;

(e) Hold regular employee trainings with industry groups

(f) Education of lawn and garden activities;

(g) Education on sustainable practices;

(h) Education/outreach of pet waste management;

(i) Education on the proper disposal of household hazardous waste;

(j) Education/outreach programs aimed at minority and disadvantaged communities and children;

(k) Education/outreach of trash management;

(l) Education/outreach in public events;

A. Participate in local events—brochures, posters, etc.

B. Participate in regional events (i.e., State Fair, Balloon Fiesta).

(m) Education/outreach using the media (e.g. publish local newsletters);

(n) Education/outreach on water conservation practices designed to reduce pollutants in storm water for home residences.

Table 8. Public Education and Outreach on Stormwater Impacts - Program Development and Implementation Schedules

Activity	Permittee Class				
	A Phase I MS4s	**B Phase II MS4s (2000 Census)**	**C New Phase II MS4s (2010 Census **)**	**D MS4s within Indian Lands**	**Cooperative (*) Any Permittee with cooperative programs**
Develop, revise, implement, and maintain an education and outreach program as required in Part I.D.5.g.(i) and Part I.D.5.g.(ii)	Ten (10) months from the effective date of the permit	Eleven (11) months from the effective date of the permit	Twelve (12) months from effective date of the permit	Twelve (12) months from effective date of the permit	Fourteen (14) months from effective date of the permit
Update the SWMP document and annual report as required in Part I.D.5.g.(iii) and Part I.D.5.g.(iv)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary
Enhance the program to include requirements in Part I.D.5.g.(v) through Part I.D.5.g.(viii)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs.
(**) or MS4s designated by the Director
Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

h. Public Involvement and Participation

(i) The permittee must provide local public notice of and make available for public review a copy of the complete NOI and attachments (see Part I.B.2). Local public notice may be made by newspaper notice, notice at a council meeting, posting on the internet, or other method consistent with state/tribal/local public notice requirements.

The permittee must consider all public comments received during the public notice period and modify the NOI, or include a schedule to modify the SWMP, as necessary, or as required by the Director modify the NOI or/and SWMP in response to such comments. The Permittees must include in the NOI any unresolved public comments and the MS4's response to these comments. Responses provided by the MS4 will be considered as part of EPA's decision-making process. See also Appendix E Providing Comments or Requesting a Public Hearing on an Operator's NOI.

(ii) The permittee shall develop, revise, implement and maintain a plan to encourage public involvement and provide opportunities for participation in the review, modification and implementation of the SWMP; develop and implement a process by which public comments to the plan are received and reviewed by the person(s) responsible for the SWMP; and, make the SWMP available to the public and to the operator of any MS4 or Tribal authority receiving discharges from the MS4. **Permittee previously covered under NMS000101 or NMR040000 must continue existing public involvement and participation programs while updating those programs, as necessary, to comply with the requirements of this permit.**

(iii) The plan required in Part I.D.5.h.(ii) shall include a comprehensive planning process which involves public participation and where necessary intergovernmental coordination, to reduce the discharge of pollutants to the maximum extent practicable using management practices, control techniques and system, design and engineering methods, and such other provisions which are appropriate. The permittee must include the following elements in the plan:

(a) A detailed description of the general plan for informing the public of involvement and participation opportunities, including types of activities; target audiences; how interested parties may access the SWMP; and how the public was involved in development of the SWMP;

(b) The development and implementation of at least one (1) assessment of public behavioral change following a public education and/or participation event;

(c) A process to solicit involvement by environmental groups, environmental justice communities, civic organizations or other neighborhoods/organizations interested in water quality-related issues, including but not limited to the Middle Rio Grande Water Quality Work Group, the Middle Rio Grande Bosque Initiative, the Middle Rio Grande Endangered Species Act Collaborative Program, the Middle Rio Grande-Albuquerque Reach Watershed Group, the Pueblos of Santa Ana, Sandia and Isleta, Albuquerque Bernalillo County Water Utility Authority, UNM Colleges and Schools, and Chartered Student Organizations; and

(d) An evaluation of opportunities to utilize volunteers for stormwater pollution prevention activities and awareness throughout the area.

(iv) The permittee shall comply with State, Tribal and local public notice requirements when implementing a public involvement/ participation program.

(v) The public participation process must reach out to all economic and ethnic groups. Opportunities for members of the public to participate in program development and implementation include serving as citizen representatives on a local stormwater management panel, attending public hearings, working as citizen volunteers to educate other individuals about the program, assisting in program coordination with other pre-existing programs, or participating in volunteer monitoring efforts.

(vi) The permittee must include in the SWMP a description of the mechanism(s) utilized to comply with each of the elements required in Parts I.D.5.h.(i) throughout Part I.D.5.h.(iv) and its corresponding measurable goal.

(vii) The permittee shall assess the overall success of the program, and document the program effectiveness in the annual report.

(viii) The permittee must provide public accessibility of the Storm Water Management Program (SWMP) document and Annual Reports online via the Internet and during normal business hours at the MS4 operator's main office, a local library, posting on the internet and/or other readily accessible location for public inspection and copying consistent with any applicable federal, state, tribal, or local open records requirements. Upon a showing of significant public interest, the MS4 operator is encouraged to hold a public meeting (or include in the agenda of in a regularly scheduled city council meeting, etc.) on the NOI, SWMP, and Annual Reports. (See Part III B)

Program Flexibility Elements

(ix) The permittee may integrate the public Involvement and participation program with existing education and outreach programs in the Middle Rio Grande area. Example of existing programs include: Adopt-A-Stream Programs; Attitude Surveys; Community Hotlines (e.g. establishment of a "311"-type number and system established to handle storm-water-related concerns, setting up a public tracking/reporting

system, using phones and social media); Revegetation Programs; Storm Drain Stenciling Programs; Stream cleanup and Monitoring program/events.

Table 9. Public Involvement and Participation - *Program Development and Implementation Schedules*

Activity	Permittee Class				
	A Phase I MS4s	**B Phase II MS4s (2000 Census)**	**C New Phase II MS4s (2010 Census **)**	**D MS4s within Indian Lands**	**Cooperative (*) Any Permittee with cooperative programs**
Develop (or update), implement, and maintain a public involvement and participation plan as required in Part I.D.5.h.(ii) and Part I.D.5.h.(iii)	Ten (10) months from effective date of the permit	Ten (10) months from effective date of the permit	Eleven (11) months from effective date of the permit	Eleven (11) months from effective date of the permit	One (1) year from effective date of the permit
Comply with State, Tribal, and local notice requirements when implementing a Public Involvement and Participation Program as required in Part I.D.5.h.(iv)	Ten (10) months from effective date of the permit	Eleven (11) months from effective date of the permit	Twelve (12) months from effective date of the permit	Twelve (12) months from effective date of the permit	Fourteen (14) months from effective date of the permit
Include elements as required in Part I.D.5.h.(v)	Ten (10) months from effective date of the permit	Eleven (11) months from effective date of the permit	One (1) year from effective date of the permit	One (1) year from effective date of the permit	Eighteen (18) months from effective date of the permit
Update the SWMP document and annual report as required in Part I.D.5.h.(vi), Part I.D.5.h.(vii), and Part I.D.5.h.(viii)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary
Enhance the program to include requirements in Part I.D.5.h.(ix)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs.
(**) or MS4s designated by the Director
Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

6. **Stormwater Management Program Review and Modification**.

   a. Program Review. Permittee shall participate in an annual review of its SWMP in conjunction with preparation of the annual report required in Part III.B. Results of the review shall be discussed in the annual report and shall include an assessment of:

      (i) SWMP implementation, progress in achieving measurable goals, and compliance with program elements and other permit conditions;

      (ii) the effectiveness of its SWMP, and any necessary modifications, in complying with the permit, including requirements to control the discharge of pollutants, and comply with water quality standards and any applicable approved TMDLs; and the adequacy of staff, funding levels, equipment, and support capabilities to fully implement the SWMP and comply with permit conditions.

(a) Project staffing requirements, in man hours, for the implementation of the MS4 program during the upcoming year.

(b) Staff man hours used during the previous year for implementing the MS4 program. Man hours may be estimated based on staff assigned, assuming a forty (40) hour work week.

b. Program Modification. The permittee(s) may modify its SWMP with prior notification or request to the EPA and NMED in accordance with this section.

(i) Modifications adding, but not eliminating, replacing, or jeopardizing fulfillment of any components, controls, or requirements of its SWMP may be made by the permittee(s) at any time upon written notification to the EPA.

(ii) Modifications replacing or eliminating an ineffective or unfeasible component, control or requirement of its SWMP, including monitoring and analysis requirements described in Parts III.A and V, may be requested in writing at any time. If request is denied, the EPA will send a written explanation of the decision. Modification requests shall include the following:

(a) a description of why the SWMP component is ineffective, unfeasible (including cost prohibitions), or unnecessary to support compliance with the permit;

(b) expectations on the effectiveness of the proposed replacement component; and

(c) an analysis of how the proposed replacement component is expected to achieve the goals of the component to be replaced.

(iii) Modifications resulting from schedules contained in Part VI may be requested following completion of an interim task or final deadline.

(iv) Modification requests or notifications shall be made in writing, signed in accordance with Part IV.H.

c. Program Modifications Required by EPA. Modifications requested by EPA shall be made in writing, set forth the time schedule for the permittee(s) to develop the modifications, and offer the permittee(s) the opportunity to propose alternative program modifications to meet the objective of the requested modification. The EPA may require changes to the SWMP as needed to:

(i) Address impacts on receiving water quality caused, or contributed to, by discharges from the MS4;

(ii) Include more stringent requirements necessary to comply with new State or Federal statutory or regulatory requirements;

(iii) Include such other conditions deemed necessary by the EPA to comply with the goals and requirements of the Clean Water Act; or

(iv) If, at any time, EPA determines that the SWMP does not meet permit requirements.

d. Transfer of Ownership, Operational Authority, or Responsibility for SWMP Implementation: The permittee(s) shall implement the SWMP:

(i) On all new areas added to their portion of the MS4 (or for which they become responsible for implementation of stormwater quality controls) as expeditiously as possible, but not later than one (1) year from addition of the new areas. Implementation may be accomplished in a phased manner to allow additional time for controls that cannot be implemented immediately;

(ii) Within ninety (90) days of a transfer of ownership, operational authority, or responsibility for SWMP implementation, the permittee(s) shall have a plan for implementing the SWMP on all affected areas. The plan may include schedules for implementation; and information on all new annexed areas and any resulting updates required to the SWMP shall be submitted in the annual report.

7. **Retention of Program Records**. The permittee shall retain SWMP records developed in accordance with Part I.D, Part IV.P, and Part VI for at least five (5) years after coverage under this permit terminates.

8. **Qualifying State, Tribal or Local Program**. The permittee may substitute the BMPs and measurable goals of an existing storm water pollution control program to qualify for compliance with one or more of the minimum control measures if the existing measure meets the requirements of the minimum control measure as established in Part I.D.5

PART II. NUMERIC DISCHARGE LIMITATIONS

A. DISCHARGE LIMITATIONS. Reserved

PART III. MONITORING, ASSESSMENT, AND REPORTING REQUIREMENTS:

A. MONITORING AND ASSESSMENT

The permittee must develop, in consultation with NMED and EPA (and affected Tribes if monitoring locations would be located on Tribal lands), and implement a comprehensive monitoring and assessment program designed to meet the following objectives:

- Assess compliance with this permit;
- Assess the effectiveness of the permittee's stormwater management program;
- Assess the impacts to receiving waters resulting from stormwater discharges;
- Characterize stormwater discharges;
- Identify sources of elevated pollutant loads and specific pollutants;
- Detect and eliminate illicit discharges and illegal connections to the MS4; and
- Assess the overall health and evaluate long-term trends in receiving water quality.

The permittee shall be select specific monitoring locations sufficient to assess effects of storm water discharges on receiving waters. The monitoring program may take advantage of monitoring stations/efforts utilized by the permittees or others in previous stormwater monitoring programs or other water quality monitoring efforts. Data collected by others at such stations may be used to satisfy part, or all, of the permit monitoring requirements provided the data collection by that party meets the requirements established in Part III.A.1 throughout Part III.A.5. The comprehensive monitoring and assessment program shall be described in the SWMP document and the results must be provided in each annual report.

Implementation of the comprehensive monitoring and assessment program may be achieved through participation with other permittees to satisfy the requirements of Part III.A.1 throughout Part III.A.5 below in lieu of creating duplicate program elements for each individual permittee.

1. **Wet Weather Monitoring**: The permittees shall conduct wet weather monitoring to gather information on the response of receiving waters to wet weather discharges from the MS4 during both wet season (July 1 through October 31) and dry Season (November 1 through June 30). Wet Weather Monitoring shall be conducted at outfalls, internal sampling stations, and/or in-stream monitoring locations at each water of the US that runs in each entity or entities' jurisdiction(s). Permittees may choose either Option A or Option B below:

   a. *Option A*: Individual monitoring

      (i) Class A: Perform wet weather monitoring at a location coming into the MS4 jurisdictional area (upstream) and leaving the MS4 jurisdictional area (downstream), see Appendix D. Monitor for TSS, TDS, COD, BOD_5, DO, oil and grease, *E.coli*, pH, total kjeldahl nitrogen, nitrate plus nitrite, dissolved phosphorus, total ammonia plus organic nitrogen, total phosphorus, PCBs and gross alpha. Monitoring of temperature shall be also conducted at outfalls and/or Rio Grande monitoring locations. Phase I permittees must include additional parameters from monitoring conducted under permit NMS000101 (from last 10 years) whose mean values are at or above a WQS. Permittee must sample these pollutants a minimum of 10 events during the permit term with at least 5 events in wet season and 4 events in dry season.

      (ii) Class B, C, and D: Perform wet weather monitoring at a location coming into the MS4 jurisdictional area (upstream) and leaving the MS4 jurisdictional area (downstream), see Appendix D. Monitor for TSS, TDS, COD, BOD_5, DO, oil and grease, *E.coli*, pH, total kjeldahl nitrogen, nitrate plus nitrite, dissolved phosphorus, total ammonia plus organic nitrogen, total phosphorus, PCBs and gross alpha. Monitoring of temperature shall be also

conducted at outfalls and/or Rio Grande monitoring locations. If applicable, include additional parameters from monitoring conducted under permits NMR040000 or/and NMR04000I whose mean values are at or above a WQS; sample these pollutants a minimum of 8 events per location during the permit term with at least 4 events in wet season and 2 events in dry season.

b. *Option B*: Cooperative Monitoring Program

Develop a cooperative wet weather monitoring program with other permittees in the Middle Rio Grande watershed (see map in Appendix A). The program will monitor waters coming into the watershed (upstream) and leaving the watershed (downstream), see suggested sampling locations in Appendix D. The program must include sampling for TSS, TDS, COD, BOD5, DO, oil and grease, *E.coli*, pH, total kjeldahl nitrogen, nitrate plus nitrite, dissolved phosphorus, total ammonia plus organic nitrogen, total phosphorus, PCBs and Gross alpha. Monitoring of temperature shall be also conducted at outfalls and/or Rio Grande monitoring locations. Permittees must include additional parameters from monitoring conducted under permits NMS000101, NMR040000 or/and NMR04000I whose mean values are at or above a WQS. The monitoring program must sample the pollutants for a minimum of 7 storm events per location during the permit term with at least 3 events wet season and 2 events in dry season.

Note: Seasonal monitoring periods are: Wet Season: July 1 through October 31; Dry Season: November 1 through June 30.

c. Wet weather monitoring shall be performed only when the predicted (or actual) rainfall magnitude of a storm event is greater than 0.25 inches and an antecedent dry period of at least forty-eight (48) hours after a rain event greater than 0.1 inch in magnitude is satisfied. Monitoring methodology will consist of collecting a minimum of four (4) grab samples spaced at a minimum interval of fifteen (15) minutes each (or a flow weighted automatic composite, see Part III.A.5.a.(i)). Individual grab samples shall be preserved and delivered to the laboratory where samples will be combined into a single composite sample from each monitoring location.

d. Monitoring methodology at each MS4 monitoring location shall be collected during any portion of the monitoring location's discharge hydrograph (i.e. first flush, rising limb, peak, and falling limb) after a discernible increase in flow at the tributary inlet.

e. The permittee must comply with the schedules contained in Table 10. The results of the Wet Weather Monitoring must be provided in each annual report.

f. DO, pH, conductivity, and temperature shall be analyzed in the field within fifteen (15) minutes of sample collection.

g. Alternate wet weather monitoring locations established in Part III.A.1.a or Part III.A.1.b may be substituted for just cause during the term of the permit. Requests for approval of alternate monitoring locations shall be made to the EPA and NMED in writing and include the rationale for the requested monitoring station relocation. Unless disapproved by the EPA, use of an alternate monitoring location (except for those with numeric effluent limitations) may commence thirty (30) days from the date of the request. For monitoring locations where numeric effluent limitations have been established, the permit must be modified prior to substitution of alternate monitoring locations. At least six (6) samples shall be collected during the first year of monitoring at substitute monitoring locations. If there are less than six sampleable events, this should be document for reporting purposes.

h. Response to monitoring results: The monitoring program must include a contingency plan for collecting additional monitoring data within the MS4 or at additional appropriate instream locations should monitoring results indicate that MS4 discharges may be contributing to instream exceedances of WQS. The purpose of this additional monitoring effort would be to identify sources of elevated pollutant loadings so they could be addressed by the SWMP.

Table 10. Wet Weather Monitoring Program Implementation Schedules:

Activity	Permittee Class				
	A Phase I MS4s	**B** Phase II MS4s (2000 Census)	**C** New Phase II MS4s (2010 Census **)	**D** MS4s within Indian Lands	**Cooperative (*)** Any Permittee with cooperative programs
Submit wet weather monitoring preference to EPA (i.e., individual monitoring program vs. cooperative monitoring program) with NOI submittals	NOI submittal Deadline (see Table 1)	NOI submittal Deadline (see Table 1)	NOI submittal Deadline (see Table 1)	NOI submittal Deadline (see Table 1)	NOI submittal Deadline (see Table 1)
Submit a detailed description of the monitoring scheme to EPA and NMED for approval. The monitoring scheme should include: a list of pollutants; a description of monitoring sites with an explanation of why those sites were selected; and a detailed map of all proposed monitoring sites	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	Eleven (11) months from effective date of permit	Eleven (11) months from effective date of permit	Twelve (12) months from effective date of permit
Submit certification that all wet weather monitoring sites are operational and begin sampling	Eleven (11) months from effective date of permit	Eleven (11) months from effective date of permit	Thirteen (13) months from effective date of permit	Thirteen (13) months from effective date of permit	Fourteen (14) months from effective date of permit
Update SWMP document and submit annual reports	Annually	Annually	Annually	Annually	Annually

(**) or MS4s designated by the Director

Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

2. **Dry Weather Discharge Screening of MS4**: Each permittee shall identify, investigate, and address areas within its jurisdiction that may be contributing excessive levels of pollutants to the Municipal Separate Storm Sewer System as a result of dry weather discharges (i.e., discharges from separate storm sewers that occur without the direct influence of runoff from storm events, e.g. illicit discharges, allowable non-stormwater, groundwater infiltration, etc.). Due to the arid and semi-arid conditions of the area, the dry weather discharges screening program may be carried out during both wet season (July 1 through October 31) and dry Season (November 1 through June 30). Results of the assessment

shall be provided in each annual report. This program may be coordinated with the illicit discharge detection and elimination program required in Part I.D.5.e. The dry weather screening program shall be described in the SWMP and comply with the schedules contained in Part I.D.5.e.(iii). The permittee shall

a. Include sufficient screening points to adequately assess pollutant levels from all areas of the MS4.

b. Screen for, at a minimum, BOD_5, sediment or a parameter addressing sediment (e.g., TSS or turbidity), E. coli, Oil and Grease, nutrients, any pollutant that has been identified as cause of impairment of a waterbody receiving discharges from that portion of the MS4, including temperature.

c. Specify the sampling and non-sampling techniques to be issued for initial screening and follow-up purposes. Sample collection and analysis need not conform to the requirements of 40 CFR Part 136; and

d. Perform monitoring only when an antecedent dry period of at least seventy-two (72) hours after a rain event greater than 0.1 inch in magnitude is satisfied. Monitoring methodology shall consist of collecting a minimum of four (4) grab samples spaced at a minimum interval of fifteen (15) minutes each. Grab samples will be combined into a single composite sample from each station, preserved, and delivered to the laboratory for analysis. A flow weighted automatic composite sample may also be used.

3. **Floatable Monitoring:** The permittees shall establish locations for monitoring/assessing floatable material in discharges to and/or from their MS4. Floatable material shall be monitored at least twice per year at priority locations and at minimum of two (2) stations except as provided in Part III.A.3. below. The amount of collected material shall be estimated in cubic yards.

   a. One (1) station should be located in the North Diversion (only applicable to the COA and AMAFCA).

   b. Non-traditional MS4 as defined in Part VII shall sample/assess at one (1) station.

   c. Phase II MS4s shall sample/assess at one (1) station within their jurisdiction or participate in a cooperative floatable monitoring plan addressing impacts on perennial waters of the US on a larger watershed basis.

   A cooperative monitoring program may be established in partnership with other MS4s to monitor and assess floatable material in discharges to and/or from a joint jurisdictional area or watershed basis.

4. **Industrial and High Risk Runoff Monitoring** (Applicable only to Class A permittees): The permittees shall monitor stormwater discharges from Type 1 and 2 industrial facilities which discharge to the MS4 provided such facilities are located in their jurisdiction. (Note: if no such facilities are in the permittee's jurisdiction, the permittee must certify that this program element does not apply). The permittee shall:

   a. Conduct analytical monitoring of Type 1 facilities that discharge to the MS4. Type 1 facilities are municipal landfills; hazardous waste treatment, disposal and recovery facilities; facilities that are subject to EPCRA Title III, Section 313; and industrial facilities the permittee(s) determines are contributing a substantial pollutant loading to the MS4.

      (i) The following parameters shall be monitored:
      - any pollutants limited in an existing NPDES permit to a subject facility;

- oil and grease;
- chemical oxygen demand (COD);
- pH;
- biochemical oxygen demand, five-day (BOD_5);
- total suspended solids (TSS);
- total phosphorous;
- total Kjeldahl nitrogen (TKN);
- nitrate plus nitrite nitrogen;
- any discharge information required under 40 CFR §122.21(g)(7)(iii) and (iv);
- total cadmium;
- total chromium;
- total copper;
- total lead;
- total nickel;
- total silver;
- total zinc; and,
- PCBs.

(ii) Frequency of monitoring shall be established by the permittee(s), but may not be less than once per year;

(iii) In lieu of the above parameter list, the permittee(s) may alter the monitoring requirement for any individual Type 1 facility:

(a) To coincide with the corresponding industrial sector-specific monitoring requirements of the 2008 Multi-Sector General Stormwater Permit or any applicable general permit issued after September 2008. This exception is not contingent on whether a particular facility is actually covered by the general permit; or

(b) To coincide with the monitoring requirements of any individual permit for the stormwater discharges from that facility, and

(c) Any optional monitoring list must be supplemented by pollutants of concern identified by the permittee(s) for that facility.

b. Conduct appropriate monitoring (e.g. analytic, visual), as determined by the permittee(s), at Type 2 facilities that discharge to the MS4. Type 2 facilities are other municipal waste treatment, storage, or disposal facilities (e.g. POTWs, transfer stations, incinerators) and industrial or commercial facilities the permittee(s) believed contributing pollutants to the MS4. The permittee shall include in each annual report, a list of parameters of concern and monitoring frequencies required for each type of facility.

c. May use analytical monitoring data, on a parameter-by-parameter basis, that a facility has collected to comply with or apply for a State or NPDES discharge permit (other than this permit), so as to avoid unnecessary cost and duplication of effort;

d. May allow the facility to test only one (1) outfall and to report that the quantitative data also apply to the substantially identical outfalls if:

(i) A Type 1 or Type 2 industrial facility has two (2) or more outfalls with substantially identical effluents, and

(ii) Demonstration by the facility that the stormwater outfalls are substantially identical, using one (1) or all of the following methods for such demonstration. The NPDES Stormwater Sampling Guidance Document (EPA 833-B-92-001), available on EPA's website at provides detailed guidance on each of the three options: (1) submission of a narrative description and a site map; (2) submission of matrices; or (3) submission of model matrices.

b. May accept a copy of a "no exposure" certification from a facility made to EPA under 40 CFR §122.26(g), in lieu of analytic monitoring.

5. **Additional Sample Type, Collection and Analysis**:

a. Wet Weather (or Storm Event) Discharge Monitoring: If storm event discharges are collected to meet the objectives of the Comprehensive Monitoring and Assessment Program required in Part III.A (e.g., assess compliance with this permit; assess the effectiveness of the permittee's stormwater management program; assess the impacts to receiving waters resulting from stormwater discharges), the following requirements apply:

(i) Composite Samples: Flow-weighted composite samples shall be collected as follows:

(a) Composite Method – Flow-weighted composite samples may be collected manually or automatically. For both methods, equal volume aliquots may be collected at the time of sampling and then flow-proportioned and composited in the laboratory, or the aliquot volume may be collected based on the flow rate at the time of sample collection and composited in the field.

(b) Sampling Duration – Samples shall be collected for at least the first three (3) hours of discharge. Where the discharge lasts less than three (3) hours, the permittee should report the value. .

(c) Aliquot Collection – A minimum of three (3) aliquots per hour, separated by at least fifteen (15) minutes, shall be collected. Where more than three (3) aliquots per hour are collected, comparable intervals between aliquots shall be maintained (e.g. six aliquots per hour, at least seven (7) minute intervals).

(ii) Grab Samples: Grab samples shall be taken during the first two (2) hours of discharge.

b. Analytical Methods: Analysis and collection of samples shall be done in accordance with the methods specified at 40 CFR §136. Where an approved 40 CFR §136 method does not exist, any available method may be used unless a particular method or criteria for method selection (such as sensitivity) has been specified in the permit. The minimum quantification levels (MQLs) in Appendix F are to be used for reporting pollutant data for NPDES permit applications and/or compliance reporting.

Screening level tests may utilize less expensive "field test kits" using test methods not approved by EPA under 40 CFR 136, provided the manufacturers published detection ranges are adequate for the illicit discharge detection purposes.

EPA Method 1668 shall be utilized when PCB water column monitoring is conducted to determine compliance with permit requirements. For purposes of sediment sampling in dry weather as part of a screening program to identify area(s) where PCB control/clean-up efforts may need to be focused, either the Arochlor test (EPA Method 8082) or USGS test method (8093) may be utilized, but must use EPA Method 1668 (latest revision) for confirmation and determination of specific PCB levels at that location.

EPA Method 900.0 shall be utilized when gross alpha water column monitoring is conducted to determine compliance with permit requirements.

B. ANNUAL REPORT

The permittees shall submit an annual report to be submitted by no later than **December 1st**. See suggested form at http://epa.gov/region6/water/npdes/sw/ms4/index.htm. The report shall cover the previous year from **July 1st to June 30rd** and include the below separate sections. Additionally, the year one (1) and year four (4) annual report shall include submittal of a complete SWMP revision.

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.

Note: A complete copy of the signed Annual Report should be maintained on site.

1. **SWMP(s) status of implementation**: shall include the status of compliance with all schedules established under this permit and the status of actions required in Parts I, III, and VI.

2. **SWMP revisions**: shall include revisions, if necessary, to the assessments of controls or BMPs reported in the permit application (or NOI for coverage under this permit) under 40 CFR §122.26(d)(2)(v) and §122.34(d)(1)(i) are to be included, as well as a cumulative list of all SWMP revisions during the permit term.

   Class A permittees shall include revisions, if necessary, to the fiscal analysis reported in the permit application (or NOI for coverage under this permit) under §122.26(d)(2)(vi).

3. **Performance assessment**: shall include:

   a. an assessment of performance in terms of measurable goals, including, but not limited to, a description of the number and nature of enforcement actions and inspections, public education and public involvement efforts;

   b. a summary of the data, including monitoring data, that is accumulated throughout the monitoring year (July 1 to June 30); actual values of representative monitoring results shall be included, if results are above minimum quantification level (MQL); and

   c. an identification of water quality improvements or degradation.

4. **Annual expenditures**: for the reporting period, with a breakdown for the major elements of the stormwater management program and the budget for the year following each annual report. (Applicable only to Class A permittees)

5. **Annual Report Responsibilities for Cooperative Programs:** preparation of a system-wide report with cooperative programs may be coordinated among cooperating MS4s and then used as part of individual Annual Reports. The report of a cooperative program element shall indicate which, if any, permittee(s) have failed to provide the required information on the portions of the MS4 for which they are responsible to the cooperation permittees.

   a. Joint responsibility for reports covering cooperative programs elements shall be limited to participation in preparation of the overview for the entire system and inclusion of the identity of any permittee who failed to provide input to the annual report.

b. Individual permittees shall be individually responsible for content of the report relating to the portions of the MS4 for which they are responsible and for failure to provide information for the system-wide annual report no later than July 31st of each year.

6. **Public Review and Comment**: a brief summary of any issues raised by the public on the draft Annual Report, along with permittee's responses to the public comments.

7. **Signature on Certification of Annual Reports**: The annual report shall be signed and certified, in accordance with Part IV.H and include a statement or resolution that the permittee's governing body or agency (or delegated representative) has reviewed or been apprised of the content of the Annual Report. Annual report shall be due no later than December 1st of each year. A complete copy of the signed Annual Report should be maintained on site.

C. CERTIFICATION AND SIGNATURE OF RECORDS.

All reports required by the permit and other information requested by the EPA shall be signed and certified in accordance with Part IV.H.

D. REPORTING: WHERE AND WHEN TO SUBMIT

1. Monitoring results (Part III.A.1, Part III.A.3, Part III.A.5.a) obtained during the reporting period running from July 1st to June 30th shall be submitted on discharge monitoring report (DMR) forms along with the annual report required by Part III.B. A separate DMR form is required for each monitoring period (season) specified in Part III.A.1. If any individual analytical test result is less than the minimum quantification level (MQL) listed for that parameter, then a value of zero (0) may be used for that test result for the discharge monitoring report (DMR) calculations and reporting requirements. The annual report shall include the actual value obtained, if test result is less than the MQL (See Appendix F).

2. Signed copies of DMRs required under Part III, the Annual Report required by Part III.B, and all other reports required herein, shall be submitted in electronic form to R6_MS4Permits@epa.gov (note: there is an underscore between R6 and MS4).

   Copy of a suggested Annual Report Format is located in EPA R6 website: http://epa.gov/region6/water/npdes/sw/ms4/index.htm.

   Electronic submittal of the documents required in the permit using a compatible Integrated Compliance Information System (ICIS) format would be allowed if available.

3. Requests for SWMP updates, modifications in monitoring locations, or application for an individual permit shall, be submitted to,:

   U.S. EPA, Region 6
   Water Quality Protection Division
   Operations Support Office (6WQ-O)
   1445 Ross Avenue
   Dallas, Texas 75202-2733

4. Additional Notification. Permittee(s) shall also provide copies of NOIs, DMRs, annual reports, NOTs, requests for SWMP updates, items for compliance with permit requirements for Compliance with Water Quality Standards in Part I.C.1, TMDL's reports established in Part I.C.2, monitoring scheme, reports, and certifications required in Part III.A.1, programs or changes in monitoring locations, and all other reports required herein, to:

New Mexico Environment Department
Attn: Bruce Yurdin, Program Manager
Surface Water Quality Bureau
Point Source Regulation Section
P.O. Box 5469
Santa Fe, New Mexico 87502

Pueblo of Sandia Environment Department
Attn: Scott Bulgrin, Water Quality Manager
481 Sandia Loop
Bernalillo, NM 87004
(Note: Only those MS4s with discharges upstream of or to waters under the jurisdictional of the Pueblo of Sandia: AMAFCA, Sandoval County, Village of Corrales, City of Rio Rancho, Town of Bernalillo, SSCAFCA, and ESCAFCA)

Pueblo of Isleta
Attn: Ramona M. Montoya, Environment Division Manager
P.O. Box 1270
Isleta NM 87022

(Notes: Only the City of Albuquerque, Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA), New Mexico Department of Transportation (NMDOT) District 3, KAFB (Kirtland Air Force Base), Sandia Labs (DOE), and Bernalillo County). All parties submitting an NOI or NOT shall notify the Pueblo of Isleta in writing that a NOI or NOT has been submitted to EPA

Water Resources Division Manager
Pueblo of Santa Ana
2 Dove Road
Santa Ana Pueblo, New Mexico 87004
(Note: Only those MS4s with discharges upstream of or to waters under the jurisdictional of the Pueblo of Santa Ana)

PART IV. STANDARD PERMIT CONDITIONS

A. DUTY TO COMPLY.

The permittee(s) must comply with all conditions of this permit insofar as those conditions are applicable to each permittee, either individually or jointly. Any permit noncompliance constitutes a violation of the Clean Water Act (The Act) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

B. PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS.

The EPA will adjust the Civil and administrative penalties listed below in accordance with the Civil Monetary Penalty Inflation Adjustment Rule (Federal Register: Dec. 31, 1996, Volume 61, No. 252, pages 69359-69366, as corrected, March 20, 1997, Volume 62, No. 54, pages 13514-13517) as mandated by the Debt Collection Improvement Act of 1996 for inflation on a periodic basis. This rule allows EPA's penalties to keep pace with inflation. The Agency is required to review its penalties at least once every four years thereafter and to adjust them as necessary for inflation according to a specified formula. The civil and administrative penalties listed below were adjusted for inflation starting in 1996.

1. **Criminal Penalties**.
   a. Negligent Violations: The Act provides that any person who negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one (1) year, or both.

   b. Knowing Violations: The Act provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than $5,000 nor more than $50,000 per day of violation, or by imprisonment for not more than three (3) years, or both.

   c. Knowing Endangerment: The Act provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he is placing another person in imminent danger of death or serious bodily injury is subject to a fine of not more than $250,000, or by imprisonment for not more than fifteen (15) years, or both.

   d. False Statement: The Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the Act or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the Act, shall upon conviction, be punished by a fine of not more than $10,000 or by imprisonment for not more than two (2) years, or by both. If a conviction is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four (4) years, or by both. (See Section 309(c)(4) of the Act).

2. **Civil Penalties**. The Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed $27,500 per day for each violation.

3. **Administrative Penalties**. The Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty, as follows:

   a. Class I penalty: Not to exceed $11,000 per violation nor shall the maximum amount exceed $27,500.

b. Class II penalty: Not to exceed $11,000 per day for each day during which the violation continues nor shall the maximum amount exceed $137,500.

C. **DUTY TO REAPPLY**. If the permittee wishes to continue an activity regulated by this permit after the permit expiration date, the permittee must apply for and obtain a new permit. The application shall be submitted at least 180 days prior to expiration of this permit. The EPA may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date. Continuation of expiring permits shall be governed by regulations promulgated at 40 CFR §122.6 and any subsequent amendments.

D. **NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE**. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

E. **DUTY TO MITIGATE**. The permittee(s) shall take all reasonable steps to control or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

F. **DUTY TO PROVIDE INFORMATION**. The permittee(s) shall furnish to the EPA, within a time specified by the EPA, any information which the EPA may request to determine compliance with this permit. The permittee(s) shall also furnish to the EPA upon request copies of records required to be kept by this permit.

G. **OTHER INFORMATION**. When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in any report to the EPA, he or she shall promptly submit such facts or information.

H. **SIGNATORY REQUIREMENTS**. For a municipality, State, or other public agency, all DMRs, SWMPs, reports, certifications or information either submitted to the EPA or that this permit requires be maintained by the permittee(s), shall be signed by either a:

1. Principal executive officer or ranking elected official; or

2. Duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described above and submitted to the EPA.

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or any individual occupying a named position.

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

4. Certification: Any person signing documents under this section shall make the following certification: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly 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."

I. **PENALTIES FOR FALSIFICATION OF MONITORING SYSTEMS**. The Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by fines and imprisonment described in Section 309 of the Act.

J. **OIL AND HAZARDOUS SUBSTANCE LIABILITY**. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under section 311 of the Act or section 106 of CERCLA.

K. **PROPERTY RIGHTS**. The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

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

M. **REQUIRING A SEPARATE PERMIT.**

1. The EPA may require any permittee authorized by this permit to obtain a separate NPDES permit. Any interested person may petition the EPA to take action under this paragraph. The Director may require any permittee authorized to discharge under this permit to apply for a separate NPDES permit only if the permittee has been notified in writing that a permit application is required. This notice shall include a brief statement of the reasons for this decision, an application form (as necessary), a statement setting a deadline for the permittee to file the application, and a statement that on the effective date of the separate NPDES permit, coverage under this permit shall automatically terminate. Separate permit applications shall be submitted to the address shown in Part III.D. The EPA may grant additional time to submit the application upon request of the applicant. If an owner or operator fails to submit, prior to the deadline of the time extension, a separate NPDES permit application as required by the EPA, then the applicability of this permit to the permittee is automatically terminated at the end of the day specified for application submittal.

2. Any permittee authorized by this permit may request to be excluded from the coverage of this permit by applying for a separate permit. The permittee shall submit a separate application as specified by 40 CFR §122.26(d) for Class A permittees and by 40 CFR §122.33(b)(2) for Class B, C, and D permittees, with reasons supporting the request to the Director. Separate permit applications shall be submitted to the address shown in Part III.D.3. The request may be granted by the issuance of a separate permit if the reasons cited by the permittee are adequate to support the request.

3. When an individual NPDES permit is issued to a discharger otherwise subject to this permit, or the permittee is authorized to discharge under an alternative NPDES general permit, the applicability of this permit to the individual NPDES permittee is automatically terminated on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit, whichever the case may be. When an individual NPDES permit is denied to an operator otherwise subject to this permit, or the operator is denied for coverage under an alternative NPDES general permit, the applicability of this permit to the individual NPDES permittee is automatically terminated on the date of such denial, unless otherwise specified by the permitting authority.

N. **STATE / ENVIRONMENTAL LAWS.**

1. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by section 510 of the Act.

2. No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.

O. PROPER OPERATION AND MAINTENANCE. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the requirements of stormwater management programs. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a permittee only when necessary to achieve compliance with the conditions of the permit.

P. MONITORING AND RECORDS.

1. The permittee must retain records of all monitoring information, including, all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, copies of Discharge Monitoring Reports (DMRs), a copy of the NPDES permit, and records of all data used to complete the NOI for this permit, for a period of at least three years from the date of the sample, measurement, report or application, or for the term of this permit, whichever is longer. This period may be extended by request of the permitting authority at any time.

2. The permittee must submit its records to the permitting authority only when specifically asked to do so. The permittee must retain a description of the SWMP required by this permit (including a copy of the permit language) at a location accessible to the permitting authority. The permittee must make its records, including the NOI and the description of the SWMP, available to the public if requested to do so in writing.

3. Records of monitoring information shall include:
   a. The date, exact place, and time of sampling or measurements;
   b. The initials or name(s) of the individual(s) who performed the sampling or measurements;
   c. The date(s) analyses were performed;
   d. The time(s) analyses were initiated;
   e. The initials or name(s) of the individual(s) who performed the analyses;
   f. References and written procedures, when available, for the analytical techniques or methods used; and
   g. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results.

4. The permittee must maintain, for the term of the permit, copies of all information and determinations used to document permit eligibility under Parts I.A.5.f and Part I.A.3.b.

Q. MONITORING METHODS. Monitoring must be conducted according to test procedures approved under 40 CFR §136, unless other test procedures have been specified in this permit. The minimum quantification levels (MQLs) in Appendix F are to be used for reporting pollutant data for NPDES permit applications and/or compliance reporting.

R. INSPECTION AND ENTRY. The permittee shall allow the EPA or an authorized representative of EPA, or the State, upon the presentation of credentials and other documents as may be required by law, to:

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

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

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

4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Act, any substance or parameters at any location.

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

T. **ADDITIONAL MONITORING BY THE PERMITTEE(S).** If the permittee monitors more frequently than required by this permit, using test procedures approved under 40 CFR §136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report (DMR). Such increased monitoring frequency shall also be indicated on the DMR.

U. **ARCHEOLOGICAL AND HISTORIC SITES** (Applicable to areas within the corporate boundary of the City of Albuquerque and Tribal lands). This permit does not authorize any stormwater discharges nor require any controls to control stormwater runoff which are not in compliance with any historic preservation laws.

1. In accordance with the Albuquerque Archaeological Ordinance (Section 2-12-2, 14-16-5, and 14-14-3-4), an applicant for either:

   a. A preliminary plan for any subdivision that is five acres or more in size; or

   b. A site development plan or master development plan for a project that is five acres or more in size on property that is zoned SU-1 Special Use, IP Industrial Park, an SU-2 zone that requires site plan review, PC Planned Community with a site, or meets the Zoning Code definition of a Shopping Center must first obtain either a Certificate of No Effect or a Certificate of Approval from the City Archaeologist. Details of the requirements for a Certificate of No Effect or a Certificate of Approval are described in the ordinance. Failure to obtain a certificate as required by ordinance shall subject the property owner to the penalties of §1-1-99 ROA 1994.

2. If municipal excavation and/or construction projects implementing requirements of this permit will result in the disturbance of previously undisturbed land, and the project is not required to have a separate NPDES permit (e.g. general permit for discharge of stormwater associated with construction activity), then the permittee may seek authorization for stormwater discharges from such sites of disturbance by:

   a. Submitting, thirty (30) days prior to commencing land disturbance, the following to the State Historic Preservation Officer (SHPO) and to appropriate Tribes and Tribal Historic Preservation Officers for evaluation of possible effects on properties listed or eligible for listing on the National Register of Historic Places:

      (i) A description of the construction or land disturbing activity and the potential impact that this activity may have upon the ground, and

      (ii) A copy of a USGS topographic map outlining the location of the project and other ancillary impact areas.

      (iii) The addresses of the SHPO. Sandia Pueblo, and Isleta Pueblo are:

      State Historic Preservation Officer
      New Mexico Historic Preservation Division

Bataan Memorial Building
407 Galisteo Street, Ste. 236
Santa Fe, New Mexico 87501

Pueblo of Sandia Environment Department
Attn: Frank Chaves, Environment Director
481 Sandia Loop
Bernalillo, New Mexico 87004

Pueblo of Isleta
Department of Cultural and Historic Preservation
Attn: Daniel Waseta, Director
P.O. Box 1270
Isleta NM 87022

Water Resources Division Manager
Pueblo of Santa Ana
2 Dove Road
Santa Ana Pueblo, New Mexico 87004

3. If the permittee receives a request for an archeological survey or notice of adverse effects from the SHPO, the permittee shall delay such activity until:

   a. A cultural resource survey report has been submitted to the SHPO for a review and a determination of no effect or no adverse effect has been made, and

   b. If an adverse effect is anticipated, measures to minimize harm to historic properties have been agreed upon between the permittee and the SHPO.

4. If the permittee does not receive notification of adverse effects or a request for an archeological survey from the SHPO within thirty (30) days, the permittee may proceed with the activity.

5. Alternately, the permittee may obtain authorization for stormwater discharges from such sites of disturbance by applying for a modification of this permit. The permittee may apply for a permit modification by submitting the following information to the Permitting Authority 180 days prior to commencing such discharges:

   a. A letter requesting a permit modification to include discharges from activities subject to this provision, in accordance with the signatory requirements in Part IV.H.

   b. A description of the construction or land disturbing activity and the potential impact that this activity may have upon the ground; County in which the facility will be constructed; type of facility to be constructed; size area (in acres) that the facility will encompass; expected date of construction; and whether the facility is located on land owned or controlled by any political subdivision of New Mexico; and

   c. A copy of a USGS topographic map outlining the location of the project and other ancillary impact areas.

V. **CONTINUATION OF THE EXPIRED GENERAL PERMIT.** If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with the Administrative Procedures Act and remain in force and effect. Any permittee who was granted permit coverage prior to the expiration date will automatically remain covered by the continued permit until the earlier of:

1. Reissuance or replacement of this permit, at which time the permittee must comply with the Notice of Intent conditions of the new permit to maintain authorization to discharge; or

2. Issuance of an individual permit for your discharges; or

3. A formal permit decision by the permitting authority not to reissue this general permit, at which time the permittee must seek coverage under an alternative general permit or an individual permit.

W. **PERMIT TRANSFERS**: This permit is not transferable to any person except after notice to the permitting authority. The permitting authority may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Act.

X. **ANTICIPATED NONCOMPLIANCE**. The permittee must give advance notice to the permitting authority of any planned changes in the permitted small MS4 or activity which may result in noncompliance with this permit. (see

Y. **PROCEDURES FOR MODIFICATION OR REVOCATION**: Permit modification or revocation will be conducted according to 40 CFR 122.62, 122.63, 122.64 and 124.5.

PART V. PERMIT MODIFICATION

A. **MODIFICATION OF THE PERMIT**. The permit may be reopened and modified, in accordance with 40 CFR §122.62, §122.63, and §124.5, during the life of the permit to address:

1. Changes in the State's Water Quality Management Plan, including Water Quality Standards;

2. Changes in applicable water quality standards, statutes or regulations;

3. A new permittee who is the owner or operator of a portion of the MS4;

4. Changes in portions of the SWMP that are considered permit conditions;

5. Construction activities implementing requirements of this permit that will result in the disturbance of previously undisturbed land and not required to have a separate NPDES permit; or

6. Other modifications deemed necessary by the EPA to meet the requirements of the Act.

B. **MODIFICATION OF THE SWMP(s)**. Only those portions of the SWMPs specifically required as permit conditions shall be subject to the modification requirements of 40 CFR §124.5. Addition of components, controls, or requirements by the permittee(s); replacement of an ineffective or infeasible control implementing a required component of the SWMP with an alternate control expected to achieve the goals of the original control; and changes required as a result of schedules contained in Part VI shall be considered minor changes to the SWMP and not modifications to the permit. (See also Part I.D.6)

C. **CHANGES IN REPRESENTATIVE MONITORING SITES**. Changes in monitoring sites, other than those with specific numeric effluent limitations (as described in Part III.A.1.g), shall be considered minor modifications to the permit and shall be made in accordance with the procedures at 40 CFR §122.63.

PART VI. SCHEDULES FOR IMPLEMENTATION AND COMPLIANCE.

A. **IMPLEMENTATION AND AUGMENTATION OF THE SWMP(s).** The permittee(s) shall comply with all elements identified in Parts I and III for SWMP implementation and augmentation, and permit compliance. The EPA shall have sixty (60) days from receipt of a modification or augmentation 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 thirty (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.

B. **COMPLIANCE WITH EFFLUENT LIMITATIONS.** Reserved.

C. **REPORTING COMPLIANCE WITH SCHEDULES.** No later than fourteen (14) days following a date for a specific action (interim milestone or final deadline) identified in the Part VI schedule(s), the permittee(s) shall submit a written notice of compliance or noncompliance to the EPA in accordance with Part III.D.

D. **MODIFICATION OF THE SWMP(s).** The permittee(s) shall modify its SWMP, as appropriate, in response to modifications required in Part VI.A. Such modifications shall be made in accordance with Part V.B.

PART VII. DEFINITIONS

All definitions contained in Section 502 of the Act shall apply to this permit and are incorporated herein by reference. Unless otherwise specified, additional definitions of words or phrases used in this permit are as follows:

(1) **Baseline Load** means the load for the pollutant of concern which is present in the waterbody before BMPs or other water quality improvement efforts are implemented.

(2) **Best Management Practices (BMPs)** means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

(3) **Bioretention** means the water quality and water quantity stormwater management practice using the chemical, biological and physical properties of plants, microbes and soils for the removal of pollution from stormwater runoff.

(4) **Canopy Interception** means the interception of precipitation, by leaves and branches of trees and vegetation that does not reach the soil.

(5) **Contaminated Discharges:** The following discharges are considered contaminated:
- Has had a discharge resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 117.21 or 40 CFR 302.6 at any time since November 16, 1987; or
- Has had a discharge resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 110.6 at any time since November 16, 1987; or
- Contributes to a violation of an applicable water quality standard.

(6) **Controls** or **Control Measures** or **Measures** means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or control the pollution of waters of the United States. Controls also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

(7) **Controllable Sources**: Sources, private or public, which fall under the jurisdiction of the MS4.

(8) **CWA** or **The Act** means Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et.seq.

(9) **Co-permittee** means a permittee to a NPDES permit that is only responsible for permit conditions relating to the discharge for which it is operator.

(10) **Composite Sample** means a sample composed of two or more discrete samples. The aggregate sample will reflect the average water quality covering the compositing or sample period.

(11) **Core Municipality** means, for the purpose of this permit, the municipality whose corporate boundary (unincorporated area for counties and parishes) defines the municipal separate storm sewer system. (ex. City of Dallas for the Dallas Municipal Separate Storm Sewer System, Harris County for unincorporated Harris County).

(12) **Direct Connected Impervious Area (DCIA)** means the portion of impervious area with a direct hydraulic connection to the permitee's municipal separate storm sewer system or a waterbody via continuous paved surfaces, gutters, pipes, and other impervious features. Direct connected impervious area typically does not include isolated impervious areas with an indirect hydraulic connection to the municipal separate storm sewer system (e.g., swale or detention basin) or that otherwise drain to a pervious area.

(13) **Director** means the Regional Administrator or an authorized representative.

(14) **Discharge** for the purpose of this permit, unless indicated otherwise, means discharges from the municipal separate storm sewer system.

(15) **Discharge-related activities"** include: activities which cause, contribute to, or result in storm water point source pollutant discharges; and measures to control storm water discharges, including the sitting, construction and operation of best management practices (BMPs) to control, reduce or prevent storm water pollution.

(16) **Engineered Infiltration** means an underground device or system designed to accept stormwater and slowly exfiltrates it into the underlying soil. This device or system is designed based on soil tests that define the exfiltration rate.

(17) **Evaporation** means rainfall that is changed or converted into a vapor.

(18) **Evapotranspiration** means the sum of evaporation and transpiration of water from the earth's surface to the atmosphere. It includes evaporation of liquid or solid water plus the transpiration of plants.

(19) **Extended Filtration** means a structural stormwater practice which filters stormwater runoff through vegetation and engineered soil media. A portion of the stormwater runoff drains into an underdrain system which slowly releases it after the storm is over.

(20) **Facility** means any NPDES "point source" or any other facility (including land or appurtenances thereto) that is subject to regulation under the NPDES program.

(21) **Flood Control Projects** mean major drainage projects developed to control water quantity rather than quality, including channelization and detention.

(22) **Flow-weighted composite sample** means a composite sample consisting of a mixture of aliquots collected at a constant time interval, where the volume of each aliquot is proportional to the flow rate of the discharge.

(23) **Grab Sample** means a sample which is taken from a wastestream on a one-time basis without consideration of the flow rate of the wastestream and without consideration of time.

(24) **Green Infrastructure** means an array of products, technologies, and practices that use natural systems – or engineered systems that mimic natural processes – to enhance overall environmental quality and provide utility services. As a general principal, Green Infrastructure techniques use soils and vegetation to infiltrate, evapotranspirate, and/or recycle stormwater runoff. When used as components of a stormwater management system, Green Infrastructure practices such as green roofs, porous pavement, rain gardens, and vegetated swales can produce a variety of environmental benefits. In addition to effectively retaining and infiltrating rainfall, these technologies can simultaneously help filter air pollutants, reduce energy demands, mitigate urban heat islands, and sequester carbon while also providing communities with aesthetic and natural resource benefits.

(25) **Hydromodification** means the alteration of the natural flow of water through a landscape, and often takes the form of channel straightening, widening, deepening, or relocating existing, natural stream channels. It also can involve excavation of borrow pits or canals, building of levees, streambank erosion, or other conditions or practices that change the depth, width or location of waterways. Hydromodification usually results in water quality and habitat impacts.

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

(27) **Illicit discharge** means any discharge to a municipal separate storm sewer that is not composed entirely of stormwater except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities.

(28) **Impervious Area (IA)** means conventional pavements, sidewalks, driveways, roadways, parking lots, and rooftops.

(29) **Indian Country** means:

a. All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation;
b. All dependent Indian communities within the borders of the United States whether within the originally or subsequently acquired territory thereof, and whether within or without the limits of a state; and
c. All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same. This definition includes all land held in trust for an Indian tribe.

(30) **Individual Residence** means, for the purposes of this permit, single or multi-family residences. (e.g. single family homes and duplexes, town homes, apartments, etc.)

(31) **Infiltration** means the process by which stormwater penetrates the soil.

(32) **Land application unit** means an area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for treatment or disposal.

(33) **Landfill** means an area of land or an excavation in which wastes are placed for permanent disposal, and which is not a land application unit, surface impoundment, injection well, or waste pile.

(34) **Land Use** means the way in which land is used, especially in farming and municipal planning.

(35) **Large or medium municipal separate storm sewer system** means all municipal separate storm sewers that are either: (i) located in an incorporated place (city) with a population of 100,000 or more as determined by the latest Decennial Census by the Bureau of Census (these cities are listed in Appendix F of 40 CFR §122); or (ii) located in the counties with unincorporated urbanized populations of 100,000 or more, except municipal separate storm sewers are located in the incorporated places, townships, or towns within such counties (these counties are listed in Appendices H and I of 40 CFR §122); or (iii) owned or operated by a municipality other than those described in Paragraph (i) or (ii) and that are designated by the Regional Administrator as part of the large or medium municipal separate storm sewer system.

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

(37) **Measurable Goal** means a quantitative measure of progress in implementing a component of storm water management program.

(38) **Municipal Separate Storm Sewer (MS4)** means all separate storm sewers that are defined as "large" or "medium" or "small" municipal separate storm sewer systems pursuant to paragraphs 40 CFR §122.26(b)(4), (b)(7), and (b)(16), or designated under paragraph 40 CFR §122.26(a)(1)(v).

(39) **Non-traditional MS4** means systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings. 40 CFR 122.26(a)(16)(iii).

(40) **NOI** means Notice of Intent to be covered by this permit (see Part I.B of this permit)

(41) **NOT** means Notice of Termination.

(42) **Outfall** means a *point source* as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.

(43) **Percent load reduction** means the difference between the baseline load and the target load divided by the baseline load.

(44) **Owner or operator** means the owner or operator of any "facility or activity" subject to regulation under the NPDES program.

(45) **Permittee** refers to any person (defined below) authorized by this NPDES permit to discharge to Waters of the United States.

(46) **Permitting Authority** means EPA, Region 6.

(47) **Person** means an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof.

(48) **Point Source** means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.

(49) **Pollutant** is defined at 40 CFR 122.2. Pollutant means dredged spoil, solid waste, incinerator residue, filter back-wash, sewage, garbage, sewage sludge. Munitions, chemical waste, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011), heat, wrecked or discarded equipment, rock sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.

(50) **Pre-development Hydrology**, Predevelopment hydrology is generally the rain volume at which runoff would be produced when a site or an area is in its natural condition, prior to development disturbances. For the Middle Rio Grande area, EPA considers predevelopment conditions to be a mix of woods and desert shrub.

(51) **Rainfall and Rainwater Harvesting** means the collection, conveyance, and storage of rainwater. The scope, method, technologies, system complexity, purpose, and end uses vary from rain barrels for garden irrigation in urban areas, to large-scale collection of rainwater for all domestic uses.

(52) **Soil amendment** means adding components to in-situ or native soils to increase the spacing between soil particles so that the soil can absorb and hold more moisture. The amendment of soils changes various other physical, chemical and biological characteristics so that the soils become more effective in maintaining water quality.

(53) **Storm drainage projects** include stormwater inlets, culverts, minor conveyances and a host of other structures or devices.

(54) **Storm sewer**, unless otherwise indicated, means a municipal separate storm sewer.

(55) **Stormwater** means stormwater runoff, snow melt runoff, and surface runoff and drainage.

(56) **Stormwater Discharge Associated with Industrial Activity** means the discharge from any conveyance which is used for collecting and conveying stormwater and which is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant (See 40 CFR §122.26(b)(14) for specifics of this definition).

(57) **Target load** means the load for the pollutant of concern which is necessary to attain water quality goals (e.g. applicable water quality standards).

(58) **Stormwater Management Program (SWMP)** means a comprehensive program to manage the quality of stormwater discharged from the municipal separate storm sewer system. For the purposes of this permit, the Stormwater Management Program is considered a single document, but may actually consist of separate programs (e.g. "chapters") for each permittee.

(59) **Targeted controls** means practices implemented to address particular pollutant of concern. For example litter program targets floatables.

(60) **Time-weighted composite** means a composite sample consisting of a mixture of equal volume aliquots collected at a constant time interval.

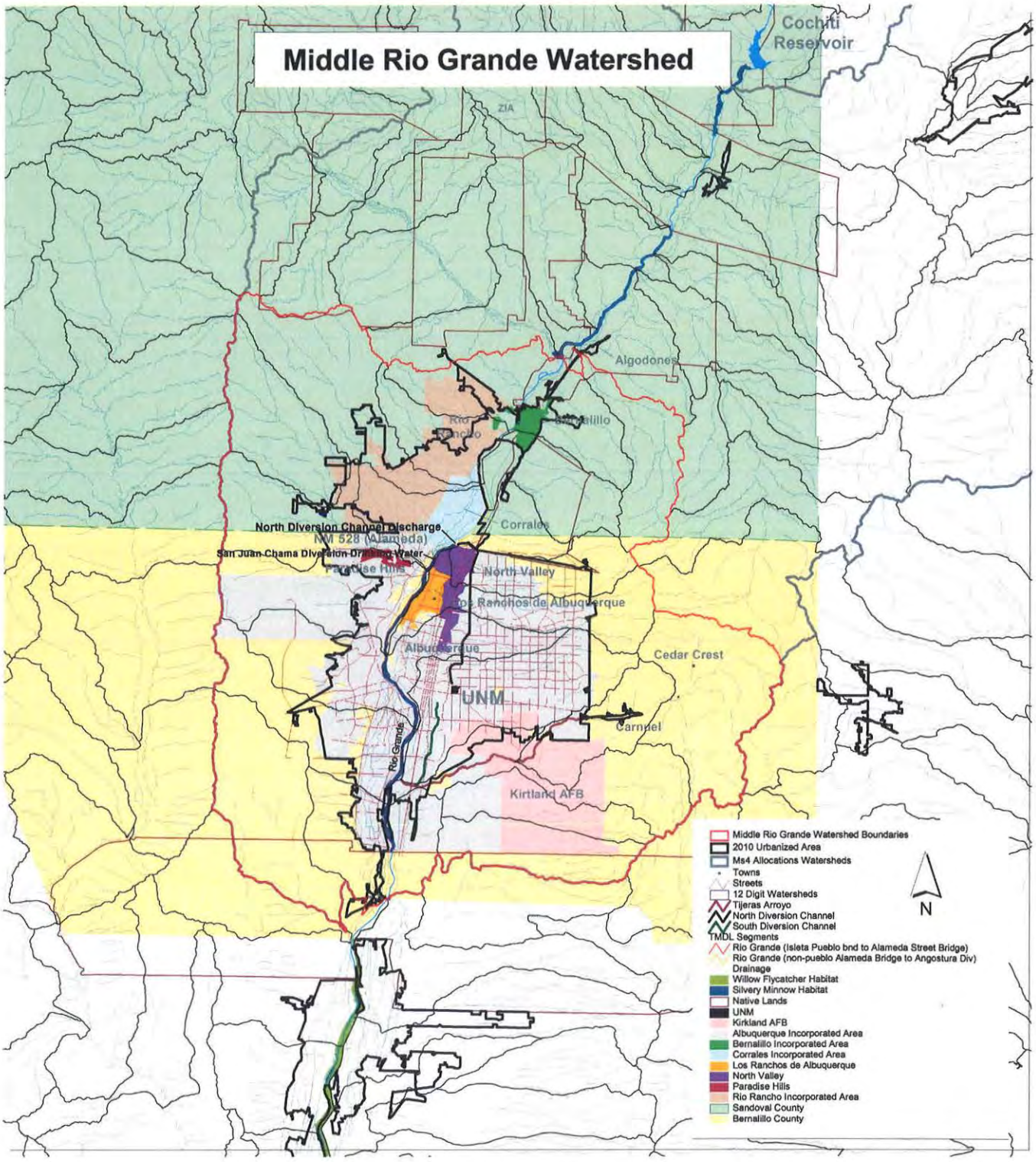
(61) **Total Maximum Daily Load (TMDL)** means a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards. A TMDL is the sum of individual wasteload allocations for point sources (WLA), load allocations for non-point sources and natural background (LA), and must consider seasonal variation and include a margin of safety. The TMDL comes in the form of a technical document or plan.

(62) **Toxicity** means an LC50 of <100% effluent.
(63) **Waste load allocation (WLA)** means the portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality-based effluent limitation.
(64) **Wetlands** means those areas that are inundated or saturated by surface or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.
(65) **Whole Effluent Toxicity (WET)** means the aggregate toxic effect of an effluent measured directly by a toxicity test.

PART VIII PERMIT CONDITIONS APPLICABLE TO SPECIFIC AREAS OR INDIAN COUNTY LANDS

Reserved

Appendix A - Middle Rio Grande Watershed Jurisdictions and Potential Permittees



Middle Rio Grande Watershed Jurisdictions and Potential Permittees

Class A:
City of Albuquerque
AMAFCA (Albuquerque Metropolitan Arroyo Flood Control Authority)
UNM (University of New Mexico)
NMDOT (New Mexico Department of Transportation District 3)

Class B:
Bernalillo County
Sandoval County
Village of Corrales
City of Rio Rancho
Los Ranchos de Albuquerque
KAFB (Kirtland Air Force Base)
Town of Bernalillo
EXPO (State Fairgrounds/Expo NM)
SSCAFCA (Southern Sandoval County Arroyo Flood Control Authority)
NMDOT (New Mexico Department of Transportation District 3)

Class C:
ESCAFCA (Eastern Sandoval County Arroyo Flood Control Authority)
Sandia Labs (DOE)

Class D:
Pueblo of Sandia
Pueblo of Isleta
Pueblo of Santa Ana

Note: There could be additional potential permittees.
NMDOT Dist. 3 falls into the Class A type permittee, if an individual program is developed or/and implemented. The timelines for cooperative programs should be used, if NMDOT Dist. 3 cooperates with other permittees.

Appendix B - Total Maximum Daily Loads (TMDLs)

B.1. Approved Total Maximum Daily Loads (TMDLs) Tables

A bacteria TMDL for the Middle Rio Grande was approved by the New Mexico Water Quality Control Commission on April 13, 2010, and by EPA on June 30, 2010. The new TMDL modifies: 1) the indicator parameter for bacteria from fecal coliform to *E. coli*, and 2) the way the WLAs are assigned

Discharges to Impaired Waters – TMDL Waste Load Allocations (WLAs)[2] for *E. coli*: Rio Grande[1]

Stream Segment	Stream Name	Permittee Class	FLOW CONDITIONS & ASSOCIATED WLA (cfu/day)[3]				
			High	Moist	Mid-Range	Dray	Low
2105_50	Isleta Pueblo boundary to Alameda Street Bridge (based on flow at USGS Station NM08330000)	Class A [4]	$3.36x10^{10}$	$8.41 x10^{10}$	$5.66 x10^{10}$	$2.09 x10^{10}$	$4.67 x10^{9}$
		Class B[5] Class C[6]	$3.73 x10^{9}$	$9.35 x10^{9}$	$6.29 x10^{9}$	$2.32 x10^{9}$	$5.19 x10^{8}$
2105.1_00	non-Pueblo Alameda Bridge to Angostura Diversion (based on flow at USGS Station NM08329928)	Class A	$5.25 x10^{10}$	$1.52 x10^{10}$	_	$5.43 x10^{9}$	$2.80 x10^{9}$
		Class B Class C	$2.62 x10^{11}$	$7.59 x10^{10}$	_	$2.71 x10^{10}$	$1.40 x10^{10}$

1 Total Maximum Daily Load for the Middle Rio Grande Watershed, NMED, 2010.
2 The WLAs for the stormwater MS4 permit was based on the percent jurisdiction area approach. Thus, the MS4 WLAs are a percentage of the available allocation for each hydrologic zone, where the available allocation = TMDL – WLA – MOS.
3 Flow conditions relate to percent of days the flow in the Rio Grande at a USGS Gauge exceeds a particular level: High 0-10%; Moist 10-40%; Mid-Range 40-60%; Dry 60-90%; and Low 90-100%. (Source: Figures 4.3 and 4.4 in 2010 Middle Rio Grande TMDL)
4 Phase I MS4s
5 Phase II MS4s (2000 Census)
6 New Phase II MS4s (2010 Census or MS4s designated by the Director)

Estimating Target Loadings for Particular Monitoring Location:

The Table in B.2 below provides a mechanism to calculate, based on acreage within a drainage area, a target loading value for a particular monitoring location.

B.2. Calculating Alternative Sub-measurable Goals

Individual permittees or a group of permittees seeking alternative sub-measureable goals under C.2.b.(i).(c).B should consult NMED. Preliminary proposals should be submitted with the Notice of Intent (NOI) under Part I.B.2.k according to the due dates specified in Part I.B.1.a of the permit. This proposal shall include, but is not limited to, the following items

B.2.1 **Determine base loading for subwatershed areas consistent with TMDL**

a. Using the table below, the permittee must develop a target load consistent with the TMDL for any sampling point in the watershed (even if it includes area outside the jurisdictional area of the permit).

E. coli loading on a per area basis (cfu/sq mi/day)

	high	moist	mid	dry	low
Alameda to Isleta	1.79E+09	4.48E+08	3.02E+08	1.11E+08	2.58E+07
Angostura to Alameda	3.25E+09	9.41E+08	5.19E+08	3.37E+08	1.74E+08

b. An estimation of the pertinent, subwatershed area that the permittee is responsible for and the basis for determining that area, including the means for excluding any tributary inholdings;

c. Using the total loading for the watershed (from part a) and the percentage of the watershed area that is part of the permitee(s) jurisdiction (part b) to calculate a base WLA for this subwatershed.

B.2.2 Set Alternative subwatershed targets

a. Permittee(s) may reallocate WLA within and between subwatershed based on factors including:

- Population density within the pertinent watershed area;
- Slope of the waterway;
- Percent impervious surface and how that value was determined;
- Stormwater treatment, installation of green infrastructure for the control or treatment of stormwater and stormwater pollution prevention and education programs within specific watersheds

b. A proposal for an alternative subwatershed target must include the rationale for the factor(s) used

B.2.3 Ensure overall compliance with TMDL WLA allocation

The permitee(s) will provide calculations demonstrating the total WLA under the alternative proposed in (Part II) is consistent with the baseline calculated in (Part I) based on their total jurisdictional area. Permittee(s) will not be allowed to allocate more area within the watershed than is accorded to them under their jurisdictional area. For permittees that work cooperatively, WLA calculations may be combined and used where needed within the sub-watershed amongst the cooperating parties.

WLA calculations must be sent as part of the Notice of Intent to EPA via e-mail at R6_MS4Permits@epa.gov. These calculations must also be sent to:

Sarah Holcomb
Industrial and Stormwater Team Leader
NMED Surface Water Quality Bureau
P.O. Box 5469,

Appendix C - Historic Properties Eligibility Procedures

MS4 operators must determine whether their MS4's storm water discharges, allowable non-storm water discharges, or construction of best management practices (BMPs) to control such discharges, have potential to affect a property that is either listed or eligible for listing on the National Register of Historic Places.

For existing dischargers who do not need to construct BMPs for permit coverage, a simple visual inspection may be sufficient to determine whether historic properties are affected. However, for MS4s which are new storm water dischargers and for existing MS4s which are planning to construct BMPs for permit eligibility, MS4 operators should conduct further inquiry to determine whether historic properties may be affected by the storm water discharge or BMPs to control the discharge. In such instances, MS4 operators should first determine whether there are any historic properties or places listed on the National Register or if any are eligible for listing on the register (e.g., they are "eligible for listing").

Due to the large number of entities seeking coverage under this permit and the limited number of personnel available to State and Tribal Historic Preservation Officers nationwide to respond to inquiries concerning the location of historic properties, EPA suggests that MS4 operators first access the "National Register of Historic Places" information listed on the National Park Service's web page (www.nps.gov/nr/). Addresses for State Historic Preservation Officers and Tribal Historic Preservation Officers are listed in Parts II and III of this appendix, respectively. In instances where a Tribe does not have a Tribal Historic Preservation Officer, MS4 operators should contact the appropriate Tribal government office when responding to this permit eligibility condition. MS4 operators may also contact city, county or other local historical societies for assistance, especially when determining if a place or property is eligible for listing on the register. Tribes that do not currently reside in an area may also have an interest in cultural properties in areas they formerly occupied. Tribal contact information is available at http://www.epa.gov/region06/6dra/oejta/tribalaffairs/index.html

The following three scenarios describe how MS4 operators can meet the permit eligibility criteria for protection of historic properties under this permit:

(1) If historic properties are not identified in the path of an MS4's storm water and allowable non-storm water discharges or where construction activities are planned to install BMPs to control such discharges (e.g., diversion channels or retention ponds), then the MS4 operator has met the permit eligibility criteria under Part I.A.3.b.(i).

(2) If historic properties are identified but it is determined that they will not be affected by the discharges or construction of BMPs to control the discharge, the MS4 operator has met the permit eligibility criteria under Part.I.A.3.b.(ii).

(3) If historic properties are identified in the path of an MS4's storm water and allowable non-storm water discharges or where construction activities are planned to install BMPs to control such discharges, and it is determined that there is the potential to adversely affect the property, the MS4 operator can still meet the permit eligibility criteria under Part I.A.3.b.(ii) if he/she obtains and complies with a written agreement with the appropriate State or Tribal Historic Preservation Officer which outlines measures the MS4 operator will follow to mitigate or prevent those adverse effects. The operator should notify EPA before exercising this option.

The contents of such a written agreement must be included in the MS4's Storm Water Management Program.

In situations where an agreement cannot be reached between an MS4 operator and the State or Tribal Historic Preservation Officer, MS4 operators should contact EPA for assistance.

The term "adverse effects" includes but is not limited to damage, deterioration, alteration or destruction of the historic property or place. EPA encourages MS4 operators to contact the appropriate State or Tribal Historic Preservation Officer as soon as possible in the event of a potential adverse effect to a historic property.

MS4 operators are reminded that they must comply with applicable State, Tribal and local laws concerning the protection of historic properties and places.

I. Internet Information on the National Register of Historic Places
An electronic listing of the ``National Register of Historic Places,'' as maintained by the National Park Service on its National Register Information System (NRIS), can be accessed on the Internet at www.nps.gov/nr/.

II. State Historic Preservation Officers (SHPO)
SHPO List for areas covered by the permit:

NEW MEXICO
Historic Preservation Div, Office of Cultural Affairs
Bataan Memorial Building, 407 Galisteo Street, Suite 236
Santa Fe, NM 87501
505-827-6320 FAX: 505-827-6338

III. Tribal Historic Preservation Officers
(THPO)
In instances where a Tribe does not have a Tribal Historic Preservation Officer, please contact the appropriate Tribal government office when responding to this permit eligibility condition.

Tribal Historic Preservation Officers:
Mescalero Apache Tribe
P.O. Box 227
Mescalero, New Mexico 88340

Pueblo of Sandia Environment Department
Attn: Frank Chaves, Environment Director
481 Sandia Loop
Bernalillo, New Mexico 87004

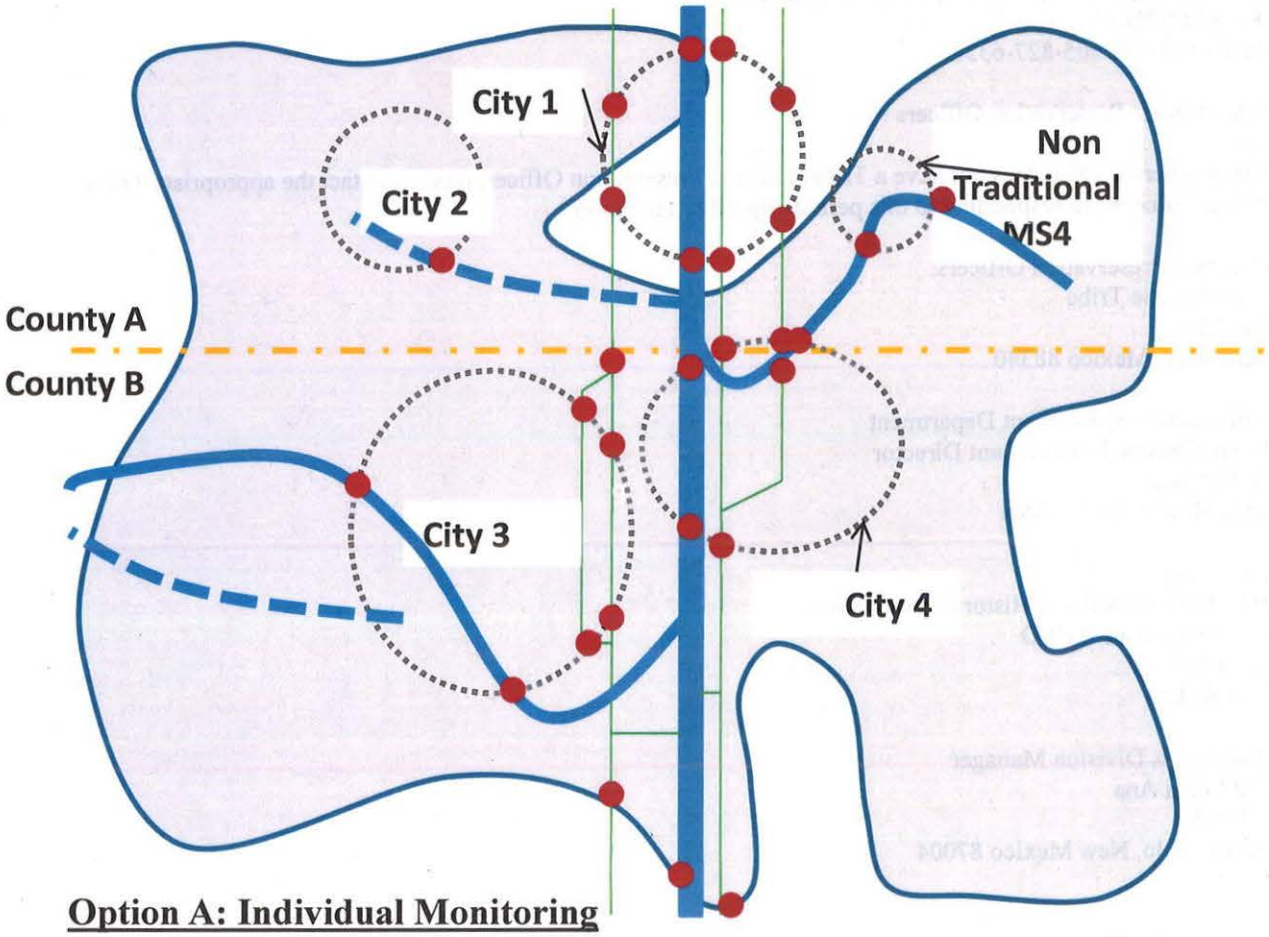
Pueblo of Isleta
Department of Cultural and Historic Preservation
Attn: Dr. Henry Walt, THPO
P.O. Box 1270
Isleta NM 87022

Water Resources Division Manager
Pueblo of Santa Ana
2 Dove Road
Santa Ana Pueblo, New Mexico 87004

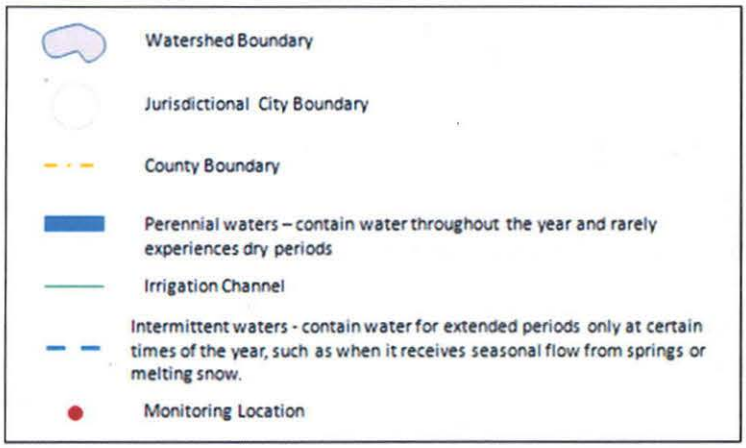
For more information:
National Association of Tribal Historic
Preservation Officers
P.O. Box 19189
Washington, DC 20036-9189
Phone: (202) 628-8476
Fax: (202) 628-2241

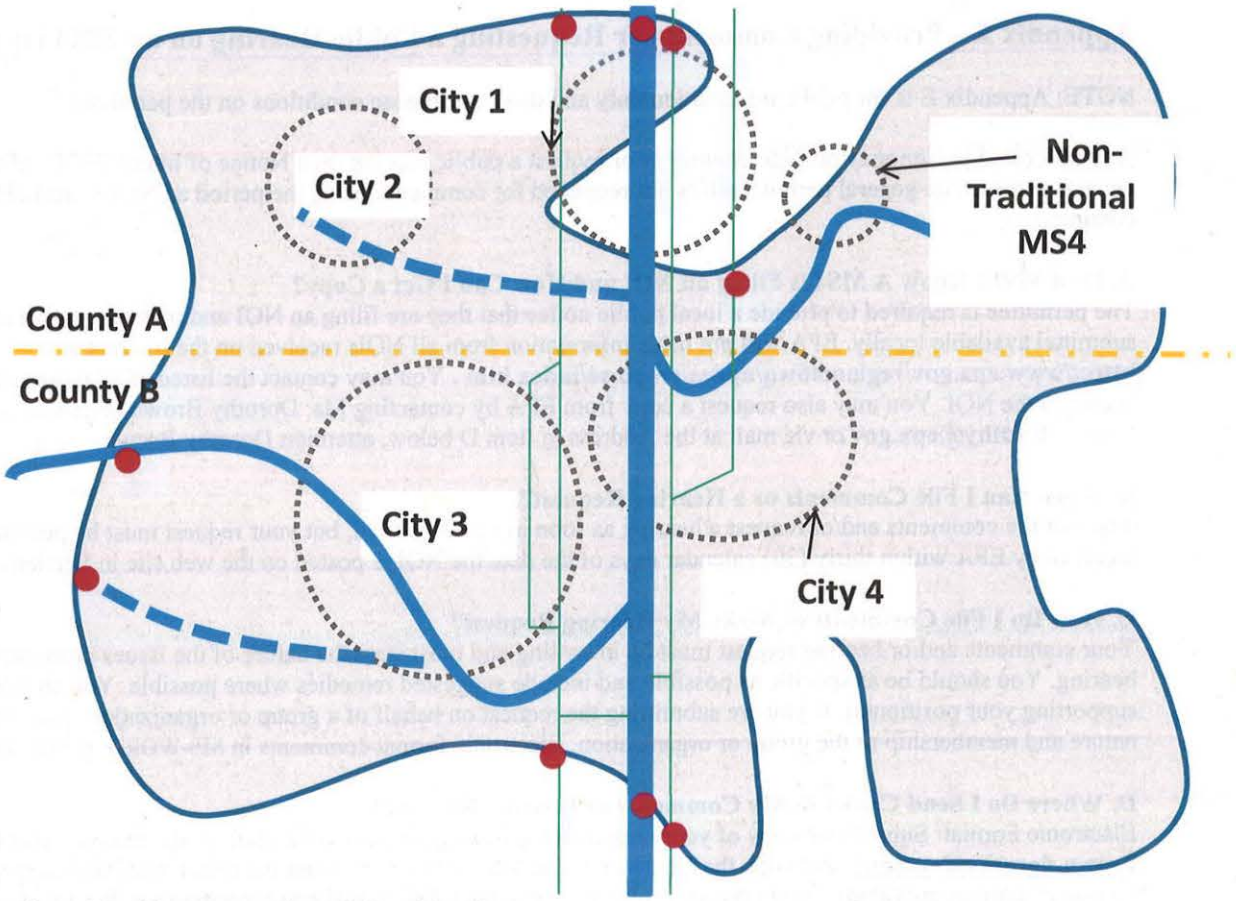
IV. Advisory Council on Historic Preservation
Advisory Council on Historic Preservation, 1100 Pennsylvania Avenue, NW., Suite 803, Washington, DC 20004 Telephone: (202) 606-8503, Fax: (202) 606-8647/8672, E-mail: achp@achp.gov

Appendix D - Suggested Initial Phase Sampling Location Concepts – Wet Weather Monitoring

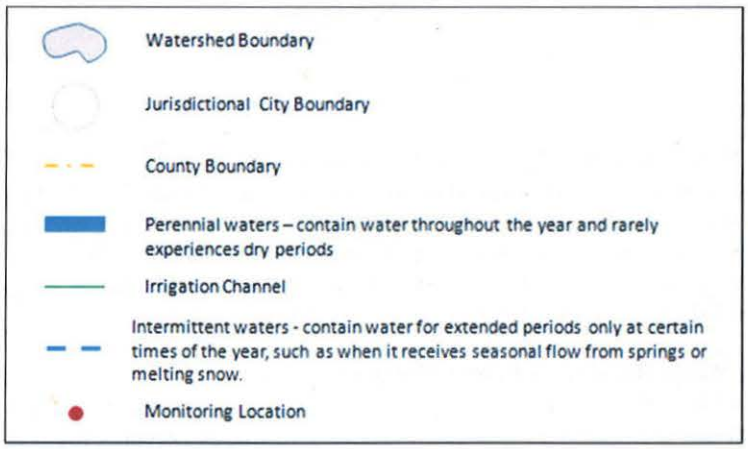


Option A: Individual Monitoring





Option B: Cooperative Monitoring



Appendix E - Providing Comments or Requesting a Public Hearing on an MS4 Operator's NOI

NOTE: Appendix E is for public information only and does not impose conditions on the permittee.

Any interested person may provide comments or request a public hearing on a Notice of Intent (NOI) submitted under this general permit. The general permit itself is not reopened for comment during the period an NOI is available for review and comment.

A. How Will I Know A MS4 is Filing an NOI and How Can I Get a Copy?
The permittee is required to provide a local public notice that they are filing an NOI and make a copy of the draft NOI submittal available locally. EPA will put basic information from all NOIs received on the Internet at: **http://www.epa.gov/region6/6wq/npdes/sw/sms4/index.htm .** You may contact the listed MS4 representative for local access to the NOI. You may also request a copy from EPA by contacting Ms. Dorothy Brown at 214-665-8141 or **brown.dorothy@epa.gov** or via mail at the Address in Item D below, attention Dorothy Brown.

B. When Can I File Comments or a Hearing Request?
You can file comments and/or request a hearing as soon as a NOI is filed, but your request must be postmarked or physically received by EPA within thirty (30) calendar days of the date the NOI is posted on the web site in Section A.

C. How Do I File Comments or Make My Hearing Request?
Your comments and/or hearing request must be in writing and must state the nature of the issues proposed to be raised in the hearing. You should be as specific as possible and include suggested remedies where possible. You should include any data supporting your position(s). If you are submitting the request on behalf of a group or organization, you should describe the nature and membership of the group or organization. Electronic format comments in MS-WORD or PDF format are preferred.

D. Where Do I Send Copies of My Comments or Hearing Request?
Electronic Format: Submit one copy of your comments or hearing request via e-mail to Ms. Dorothy Brown at **brown.dorothy@epa.gov** and copy the Operator of the MS4 at the address on the NOI (send hard copy to MS4 Operator if no e-mail address provided). You may also submit via compact disk or diskette formatted for PCs to addresses for hard copy below. (Hard Copy: You must send an original and one copy of your comments or hearing request to EPA at the address below and a copy to the Operator of the MS4 at the address provided on the NOI)

U.S. EPA Region 6
Water Quality Protection Division (6WQ-NP)
Attn: Dorothy Brown
1445 Ross Ave., Suite 1200
Dallas, TX 75202

E. How Will EPA Determine Whether or Not To Hold a Public Hearing?
EPA will evaluate all hearing requests received on an NOI to determine if a significant degree of public interest exists and whether issues raised may warrant clarification of the MS4 Operator's NOI submittal. EPA will hold a public hearing if a significant amount of public interest is evident. EPA may also, at the Agency's discretion, hold either a public hearing or an informal public meeting to clarify issues related to the NOI submittal. EPA may hold a single public hearing or public meeting covering more than one MS4 (e.g., for all MS4s in an Urbanized Area, etc.).

F. How Will EPA Announce a Pubic Hearing or Public Meeting?
EPA will provide public notice of the time and place for any public hearing or public meeting in a major newspaper with local distribution and via the Internet at **http://www.epa.gov/region6/6wq/npdes/sw/sms4/index.htm.**

G. What Will EPA Do With Comments on an NOI?
EPA will take all comments made directly or in the course of a public hearing or public meeting into consideration in determining whether or not the MS4 that submitted the NOI is appropriately covered under the general permit. The MS4 operator will have the opportunity to provide input on issues raised. The Director may require the MS4 operator to supplement or amend the NOI submittal in order to be authorized under the general permit or may direct the MS4 Operator to submit an individual permit application. A summary of issues raised and EPA's responses will be made available online at **http://www.epa.gov/region6/6wq/npdes/sw/sms4/index.htm.** A hard copy may also be requested by contacting Ms. Dorothy Brown (see paragraph D)

Appendix F - Minimum Quantification Levels (MQL's)

The following Minimum Quantification Levels (MQL's) are to be used for reporting pollutant data for NPDES permit applications and/or compliance reporting.

POLLUTANTS	MQL µg/l	POLLUTANTS	MQL µg/l
METALS, RADIOACTIVITY, CYANIDE and CHLORINE			
Aluminum	2.5	Molybdenum	10
Antimony	60	Nickel	0.5
Arsenic	0.5	Selenium	5
Barium	100	Silver	0.5
Beryllium	0.5	Thalllium	0.5
Boron	100	Uranium	0.1
Cadmium	1	Vanadium	50
Chromium	10	Zinc	20
Cobalt	50	Cyanide	10
Copper	0.5	Cyanide, weak acid dissociable	10
Lead	0.5	Total Residual Chlorine	33
Mercury (*)	0.0005 0.005		
DIOXIN			
2,3,7,8-TCDD	0.00001		
VOLATILE COMPOUNDS			
Acrolein	50	1,3-Dichloropropylene	10
Acrylonitrile	20	Ethylbenzene	10
Benzene	10	Methyl Bromide	50
Bromoform	10	Methylene Chloride	20
Carbon Tetrachloride	2	1,1,2,2-Tetrachloroethane	10
Chlorobenzene	10	Tetrachloroethylene	10
Clorodibromomethane	10	Toluene	10
Chloroform	50	1,2-trans-Dichloroethylene	10
Dichlorobromomethane	10	1,1,2-Trichloroethane	10
1,2-Dichloroethane	10	Trichloroethylene	10
1,1-Dichloroethylene	10	Vinyl Chloride	10
1,2-Dichloropropane	10		
ACID COMPOUNDS			
2-Chlorophenol	10	2,4-Dinitrophenol	50
2,4-Dichlorophenol	10	Pentachlorophenol	5
2,4-Dimethylphenol	10	Phenol	10
4,6-Dinitro-o-Cresol	50	2,4,6-Trichlorophenol	10

POLLUTANTS	MQL µg/l	POLLUTANTS	MQL µg/l
		BASE/NEUTRAL	
Acenaphthene	10	Dimethyl Phthalate	10
Anthracene	10	Di-n-Butyl Phthalate	10
Benzidine	50	2,4-Dinitrotoluene	10
Benzo(a)anthracene	5	1,2-Diphenylhydrazine	20
Benzo(a)pyrene	5	Fluoranthene	10
3,4-Benzofluoranthene	10	Fluorene	10
Benzo(k)fluoranthene	5	Hexachlorobenzene	5
Bis(2-chloroethyl)Ether	10	Hexachlorobutadiene	10
Bis(2-chloroisopropyl)Ether	10	Hexachlorocyclopentadiene	10
Bis(2-ethylhexyl)Phthalate	10	Hexachloroethane	20
Butyl Benzyl Phthalate	10	Indeno(1,2,3-cd)Pyrene	5
2-Chloronapthalene	10	Isophorone	10
Chrysene	5	Nitrobenzene	10
Dibenzo(a,h)anthracene	5	n-Nitrosodimethylamine	50
1,2-Dichlorobenzene	10	n-Nitrosodi-n-Propylamine	20
1,3-Dichlorobenzene	10	n-Nitrosodiphenylamine	20
1,4-Dichlorobenzene	10	Pyrene	10
3,3'-Dichlorobenzidine	5	1,2,4-Trichlorobenzene	10
Diethyl Phthalate	10		
		PESTICIDES AND PCBS	
Aldrin	0.01	Beta-Endosulfan	0.02
Alpha-BHC	0.05	Endosulfan sulfate	0.02
Beta-BHC	0.05	Endrin	0.02
Gamma-BHC	0.05	Endrin Aldehyde	0.1
Chlordane	0.2	Heptachlor	0.01
4,4'-DDT and derivatives	0.02	Heptachlor Epoxide	0.01
Dieldrin	0.02	PCBs **	0.2
Alpha-Endosulfan	0.01	Toxaphene	0.3

(MQL's Revised November 1, 2007)

(*) Default MQL for Mercury is 0.005 unless Part I of your permit requires the more sensitive Method 1631 (Oxidation / Purge and Trap / Cold vapor Atomic Fluorescence Spectrometry), then the MQL shall be 0.0005.

(**) EPA Method 1668 should be utilized when PCB water column monitoring is conducted to determine compliance with permit requirements. Either the Arochlor test (EPA Method 8082) or USGS test method (8093) may be utilized for purposes of sediment sampling as part of a screening program, but must use EPA Method 1668 (latest revision) for confirmation and determination of specific PCB levels at that location.

Appendix G – Oxygen Saturation and Dissolved Oxygen Concentrations North Diversion Channel Area

Concentrations of dissolved oxygen in water at various atmospheric pressures and temperatures with 100 percent oxygen saturation, 54.3 percent oxygen saturation (associated with hypoxia and harassment of silvery minnows), and 8.7 percent oxygen saturation (associated with anoxia and lethality of silvery minnows) at the North Diversion Channel (NDC) (based on USGS DO website <http://water.usgs.gov/software/DOTABLES/> for pressures between 628 to 648 millimeters of mercury (Hg)). Source: Biological Consultation Cons. #22420-2011-F-0024-R001

Water temp.	100°/o Oxygen Saturation at NDC			54.3% saturation = Harassmen			8.7% saturation= 50%Lethality		
("C)	628mmHg	638mmHg	648mmHg	628mmHg	638mmHg	648mmHg	628mmHg	638mmHg	64BmmHg
0	12.1	12.3	12.5	66	6.7	6.8	1.1	1.1	1.1
1	11.7	11.9	12.1	64	6.5	6.6	1.0	1.0	1 1
2	11.4	11.6	11.8	6.2	6.3	8.4	1.0	1.0	1.0
▼	11.1	11.3	11.5	6.0	6.1	6.2	1.0	1.0	1.0
4	10.8	11	11.2	5.9	6.0	6.1	0.9	1.0	1.0
5	10.5	10.7	10.9	5.7	5.8	59	0.9	0.9	0.9
6	10.3	10.4	10.6	5.6	5.8	5.0	0.9	0.9	0.9
7	10	10.2	10.3	5.4	5.5	5.6	0.9	09	0.9
8	9.8	9.9	10.1	5.3	5.4	5.5	0.9	0.9	0.9
8	9.5	9.7	9.6	52	53	5.3	08	0.8	0.9
▼▼	93	9.5	96	50	5.2	5.2	0.0	0.8	0.8
11	9.1	9.2	9.4	4.9	5.0	5.1	0.8	0.8	08
12	8.9	9	9.2	4.8	4.9	5.0	0.8	0.8	08
13	8.7	8.8	9	4.7	4.8	4.9	0.8	0.8	0.8
14	8.5	8.6	8.8	4.8	4.7	4.8	0.7	0.7	0.0
15	8.3	8.4	8.8	4.5	4.6	4.7	0.7	0.7	0.7
16	0.1	83	0.4	4.4	4.5	4.6	07	0.7	0.7
17	8	8.1	8.2	4.3	4.4	4.5	0.7	0.7	0.7
16	7.8	7.9	8	4.2	43	43	07	0.7	0.7
19	76	7.8	7.9	4.1	4.2	4.3	0.7	07	0.7
20	7.5	76	7.7	4.1	4.1	42	07	07	0.7
21	7.3	7.4	7.6	4.0	4.0	4.1	0.6	0.6	0.7
22	7.2	7.3	7.4	3.9	4.0	4.0	0.6	0.6	0.6
23	7	72	7.3	3.8	3.9	4.0	0.6	0.6	0.6
24	6.9	7	7.1	3.7	3.8	3.9	0.6	0.6	0.6
25	6.8	69	7	3.7	3.7	3.6	0.6	0.6	0.6
26	6.7	68	6.9	3.6	3.7	3.7	0.6	0.6	06
27	6.5	8.6	8.8	3.5	3.6	3.7	06	0.6	0.8
26	6.4	8.5	8.6	3.5	3.5	3.6	0.6	0.8	08
29	6.3	8.4	6.5	3.4	3.5	3.5	0.5	06	0.8
20	82	83	64	3.4	3.4	3.5	0.5	0.5	0.8
31	6.1	6.2	6.3	3.3	3.4	3.4	0.5	0.5	OS
32	6	6.1	6.2	3.3	3.3	34	0.5	0.5	0.5
33	5.0	6	6.1	3.2	3.3	3.3	0.5	0.5	0.5
34	5.8	5.9	6	3.1	3.2	3.3	0.5	0.5	0.5
	5.7	5.6	5.9	31	3.1	3.2	0.5	0.5	0.5

APPENDIX B –

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

Ronald D. Brown, Chair
Bruce M. Thomson, P.E., Vice Chair
Deborah L. Stover, Secretary-Treasurer
Tim Eichenberg, Assistant Secretary-Treasurer
Cynthia D. Borrego, Director

Jerry M. Lovato, P.E.
Executive Engineer

Albuquerque
Metropolitan
Arroyo
Flood
Control
Authority
2600 Prospect N.E., Albuquerque, NM 87107
Phone: (505) 884-2215 Fax: (505) 884-0214
Website: www.amafca.org

October 15, 2019

Mr. Robert Houston
Chief, Special Projects Section
U.S. Environmental Protection Agency, Region 6
1201 Elm Street, Suite 500
Dallas, Texas 75270

RE: NPDES Permit No. NMR04A000 Administrative Continuance – Duty to Re-Apply

Dear Mr. Houston:

This correspondence serves as a written notification that the members copied below of the Middle Rio Grande Technical Advisory Group (TAG) will continue to operate and discharge into the Rio Grande under the coverage and the conditions set forth in NPDES Permit No. NMR04A000 (Permit), after December 19, 2019, based on Permit language in Part IV:V and required notification in Part IV:C.

On June 27, 2019 the Middle Rio Grande TAG MS4 permittees met with and were informed by EPA Region 6 staff Brent Larson & Maria Martinez that the Permit, which expires on December 19, 2019, would likely go into administrative continuance. As EPA staff explained during the meeting, EPA is not required to issue a public notice related to the administrative continuance and the current permittees do not need to complete any actions or submit renewal applications to have continued coverage under the current Permit.

This guidance from EPA was confirmed in the Permit, in Part IV:V. CONTINUATION OF THE EXPIRED GENERAL PERMIT. *If this Permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with the Administrative Procedures Act and remain in force and effect. Any permittee who was granted permit coverage prior to the expiration date will automatically remain covered by the continued Permit until the earlier of:*

1. *Reissuance or replacement of this Permit, at which time the permittee must comply with the Notice of Intent conditions of the new permit to maintain authorization to discharge; or*
2. *Issuance of an individual permit for your discharges; or*
3. *A formal permit decision by the permitting authority not to reissue this general Permit, at which time the permittee must seek coverage under an alternative general permit or an individual permit.*

Closer review of the Permit noted the language in Part IV:C: DUTY TO REAPPLY. *If the permittee wishes to continue an activity regulated by this Permit after the Permit expiration date, the permittee must apply for and obtain a new permit. The application shall be submitted at least 180 days prior to expiration of this permit. The EPA may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date. Continuation of expiring permits shall be governed by regulations promulgated at 40 CFR § 122.6 and any subsequent amendments.* It is unclear from the Permit language in Part IV: C, if this section applies to permits that are administratively continued.

This letter is to inform EPA that, based on the provided guidance from EPA and the MS4 Permit language in Part IV:V, members of the Middle Rio Grande TAG will continue to operate with coverage under the current MS4 Permit when the Permit is administratively continued on December 19, 2019. If these assumptions are incorrect or if an application is required for continued coverage under MS4 Permit NMR04A000, please let us know as soon as possible.

We appreciate your attention to this matter. Please contact me if you have any questions.

Sincerely,
Middle Rio Grande TAG

Patrick Chavez, PE
AMAFCA Storm Water Quality Engineer and TAG Member

TAG Members Included and Copied:

Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA)
City of Rio Rancho
Sandia National Labs (operated by NTESS for US DOE)
Bernalillo County
Kirtland Air Force Base
Village of Los Ranchos
Eastern Sandoval County Arroyo Flood Control Authority (ESCACA)
Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA)
City of Albuquerque
Village of Corrales
Sandoval County
Town of Bernalillo
New Mexico Department of Transportation (NMDOT)
University of New Mexico

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202 - 2733

February 12, 2016

CERTIFIED MAIL: RETURNED RECEIPT REQUESTED (7014 0150 0000 2452 4007)

Mr. Jerry Lovato
Albuquerque Metropolitan Arroyo
Flood Control Authority
2600 Prospect Avenue NE
Albuquerque, NM 87107

Ref: Coverage under Middle Rio Grande (MRG) Watershed Based Municipal Sewer Separate Storm Sewer System General Permit (NPDES No. NMR04A000)

Permit Tracking Number: NMR04A016

Dear Mr. Lovato:

The Environmental Protection Agency (EPA) has reviewed your Notice of Intent (NOI) submittal and found it to be technically complete and has provided an opportunity for the public to review your NOI and other related documents prior to permit authorization becoming effective. No comments were received from the public during the public comment period. Authorization under this permit and duty to comply is effective as of the date of this letter.

Please contact Nelly Smith via email at Smith.Nelly@epa.gov or phone at (214) 665-7109 if you have questions or concerns regarding your coverage or the requirements included in the MRG MS4 General Permit.

Sincerely,

William K. Honker, P.E.
Director
Water Division

cc: Bruce Yurdin, Manager, Point Source Regulation Section, NMED
Sarah Holcomb, Industrial and Stormwater Team Supervisor, NMED

NOTICE OF INTENT

National Pollutant Discharge Elimination System Stormwater Program
MS4 Notice of Intent Format

Check box if you are submitting an individual NOI with one or more cooperative program elements. ☒

Check box if you are submitting an individual NOI with individual program elements only. ☐

Check box if your municipality or organization was previously covered under a MS4 permit. ☒

Please indicate the permittee class type: (Note: The definition of the permittee class type is located in Table 1 of Part I.B.1.)

☒ A (Phase I) ☐ B (Phase II) ☐ C (New Phase II) ☐ D (MS4s within Indian Lands)

I. MS4(s) Information

A. General Information

Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA)

Name of MS4

Jerry | Lovato | Executive Engine

Name of Contact Person (First) (Last) (Title)

505-884-2215 | jlovato@amafca.org

Telephone (including area code) Email

2600 Prospect Avenue NE

Mailing Address

Albuquerque | NM | 87107

City State ZIP code

What size population does your MS4(s) serve? 627,000

The operator is: ☐ Federal ☐ State ☐ Tribal ☒ other public (check one)

B. In what urbanized area (UA), the MS4 is located in:

Farmington UA ☐
Santa Fe UA ☐
Albuquerque UA ☒
Los Lunas UA ☐
Las Cruces UA ☐
El Paso UA ☐

C. If not located in an UA, the MS4 is located in:

Core Municipality
Indian Reservation/Pueblo
County(ies)
Cluster

D. Is this a Phase I MS4? ☒ Yes ☐ No

Is this a Non-traditional MS4? ☒ Yes ☐ No

If so, Check one: ☐ Dept. of Transportation ☒ Flood Control Authority ☐ University

Other - Specify

What is the Latitude and longitude of the approximate center of the MS4?

Latitude 35.0889 N Longitude 106.6920 W

II. Eligibility Determination

A. Receiving Water(s) Information

Does the MS4 discharge to any waters for which an TMDL applicable to discharges from the MS4 has been approved? (See Part I.A.5.f) ☒ Yes ☐ No ☐ NA

The receiving water(s) are:	*State or Tribal Segment ID*	*Approved TMDL*	*TMDL assigns WLA to MS4*
Rio Grande (Isleta Pueblo Boundary to Alam	20.6.4.105	☒ Yes ☐ No	☒ Yes ☐ No
Rio Grande (non-Pueblo Alameda to Angost	20.6.4.106	☒ Yes ☐ No	☒ Yes ☐ No
		☐ Yes ☐ No	☐ Yes ☐ No
		☐ Yes ☐ No	☐ Yes ☐ No
		☐ Yes ☐ No	☐ Yes ☐ No

Is the MS4 (or a group of MS4s) seeking an alternative sub-measureable goal for TMDL controls under Part I.C.2.b.(i).(c).B? ☒ Yes ☐ No ☐ NA

If so, the MS4 or a group of MS4s must submit a preliminary proposal with the NOI to EPA and NMED (see Part I.B.2.k, Section B.2 in Appendix B and Part III.D.4). This proposal should include, but is not limited to, the elements included in Appendix B under Section B.2 of the permit

If the MS4 discharges to a receiving water for which EPA has approved or developed a TMDL, describe how the eligibility requirements of Part I.A.5.f and Part I.C.2. have been met :

AMAFCA continues to review and revise its bacteria (E. coli) reduction program. The program will continue to focus on reducing bacteria from the three largest contributors identified in the 2005 Middle Rio Grande

Microbial Source Tracking Study. These largest contributors are avian (34%), canine (22%) and human (16%). AMAFCA has a new study, "Rio Grande Bacteria Investigation," which includes an analysis of E.coli data,

research on the pathogenicity and a survey of BMPs used nationwide.

For additional information, see AMAFCA DRAFT Stormwater Management Plan (SWMP) dated October 26, 2015 - pages 25-32

B. Is the MS4 partially located on Indian Country lands? ☒ Yes ☐ No

If so, the Indian Country Lands include the following: (NOTE: MS4s straddling State and Indian Country land boundaries will be issued authorization under all applicable permits and may have additional State or Tribal-specific requirements applicable to different areas of the MS4 - see Part VIII and initial notification under Part III.D.4)

AMAFCA's jurisdiction specifically excludes Pueblo Lands. However, AMAFCA maintains the North Diversion Channel, the outfall of which is located within a drainage easement on the Pueblo of Sandia.

C. Is the permit in compliance with the National Historic Preservation Act (NHPA)? ☒ Yes ☐ No

In order to be eligible for coverage under this permit, the MS4 operator must meet one of the following criteria: (Please check which criterion the MS4 is eligible under)

Criterion A: storm water discharges, allowable non-storm water discharges, and discharge-related activities do not affect a property that is listed or is eligible for listing on the National Register of Historic Places as maintained by the Secretary of the Interior. ☒

Criterion B: the applicant has obtained and is in compliance with a written agreement with the State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO) (or equivalent tribal authority) that outlines all measures the MS4 operator will undertake to mitigate or prevent adverse effect to the historic property. ☐

Provide a brief summary of the basis for the criterion selected above:

AMAFCA facilities do not discharge to properties listed on the National Register of Historic Places.

III. Preliminary Description of the Proposed Stormwater Program

As applicable, use Sections 1 through 8 below to describe the storm water management program (SWMP), including best management practices (BMPs) or storm water controls that will be implemented and the measurable goals for each of the storm water minimum control measures specified in Part I.D.5 of this permit, the month and year in which the MS4 operator will start and fully implement each of the minimum control measures or the frequency of the action, the name of the person(s) or position(s) responsible for implementing or coordinating the SWMP.

If the MS4 operator is participating in cooperative programs with other parties (or is relying on another governmental entity) to satisfy one or more permit obligations (see Part I.D.3), use the space provided under ***Cooperative Elements*** to identify the partners and briefly describe roles and responsibilities.

NOTE:

The space provided in the fields below (255 characters) should be used to briefly describe proposed BMPs and corresponding measurable goals. Individual boxes should be used to describe individual target activities. If additional space is required to describe target activities, the MS4(s) should attach such as information with the NOI using the format provided.

Section 1. Construction Site Stormwater Runoff Control – Proposed BMPS, Stormwater Controls, and Measurable Goals

1.1. Development of an ordinance or other regulatory mechanism as required in Part I.D.5.a.(ii)(a)

Because AMAFCA is strictly a flood control authority, the legal authority and jurisdiction granted to it by the state is limited. As a result, AMAFCA is unable to develop, implement, and enforce ordinances, regulatory
mechanisms, and requirements for construction site operators as required by this section. However, to the extent permitted by law, AMAFCA will comply with the requirements of this section.
For additional information, see AMAFCA DRAFT Stormwater Management Plan (SWMP) dated October 26, 2015 - page 47

Cooperative Elements

For additional information, see AMAFCA DRAFT Stormwater Management Plan (SWMP) dated October 26, 2015 - page 47

1.2. Develop requirements and procedures as required in Part I.D.5.a.(ii)(b) through in Part I.D.5.a.(ii)(h)

Because AMAFCA is strictly a flood control authority, the legal authority and jurisdiction granted to it by the State is limited. As a result, AMAFCA is unable to develop, implement, and enforce ordinances, regulatory

mechanisms, and requirements for construction site operators as required by this section. However, to the extent permitted by law, AMAFCA will comply with the requirements of this section.

For additional information, see AMAFCA DRAFT Stormwater Management Plan (SWMP) dated October 26, 2015 - page 48

Cooperative Elements

For additional information, see AMAFCA DRAFT Stormwater Management Plan (SWMP) dated October 26, 2015 - page 48

1.3. Annually conduct site inspections of 100 percent of all construction projects cumulatively disturbing one (1) or more acres as required in Part I.D.5.a.(iii)

AMAFCA will continue to conduct site inspections of 100 percent of AMAFCA construction projects which disturb at least one acre. At a minimum, each project will be inspected once annually during construction

(including follow-up inspections for any non-conformances) and at the NOT.

Cooperative Elements

AMAFCA partners with other MS4s, such as City of Albuquerque, UNM, ExpoNM, on construction projects. AMAFCA will continue to coordinate with those cooperating MS4s in order to assign responsibility of
conducting site inspections. AMAFCA is also a member of the cooperative, called the MS4 Technical Advisory Group (MS4 TAG).

1.4. Coordinate with all departments and boards with jurisdiction over the planning, review, permitting, or approval of public and private construction projects/activities within the permit area as required in Part I.D.5.a.(iv)

AMAFCA does not have jurisdiction over the planning, review, permitting or approval of non-AMAFCA public and private construction activities. Therefore, AMAFCA's program is limited to AMAFCA-owned projects.
Regular coordination will continue to occur amongst AMAFCA engineering staff to verify that BMPs are in place to control erosion during construction.
For additional information, see AMAFCA DRAFT Stormwater Management Plan (SWMP) dated October 26, 2015 - page 50

Cooperative Elements

Not applicable to AMAFCA.

1.5. Evaluation of GI/LID/Sustainable practices in site plan reviews as required in Part I.D.5.a.(v)

AMAFCA does not have jurisdiction over site plan reviews of public and private construction activities and AMAFCA does not program any development type projects. AMAFCA will continue to encourage the use of sustainable practices during

the review phase of projects within AMAFCA's right-of-ways and turn-key projects that AMAFCA will take over for operation and maintenance after construction.

Cooperative Elements

AMAFCA will encourage an evaluation of sustainable GI/LID practice opportunities within the watershed.

1.6. Enhance the program to include program elements in Part I.D.5.a.(viii) through Part I.D.5.a.(x)

AMAFCA continues to use storm water educational materials, either locally developed or provided by the EPA, NMED, environmental, public interest or trade organizations and/or other MS4s. AMAFCA will work with

other MS4s to evaluate the need to update the 2012 Storm Water Management Guidelines for Construction and Industrial Activities. AMAFCA will continue to incorporate a screening prioritization process for inspections.

Cooperative Elements

The 2012 Storm Water Management Guidelines for Construction & Industrial Activities is coauthored by AMAFCA, NMED, NMDOT, City of Albuquerque, UNM, City of Rio Rancho, SSCAFCA, and Bernalillo County.
AMAFCA will continue to host training sessions to the MS4s, for example the NMED provided training at AMAFCA for all the MS4s regarding the Construction General Permit, SWPPPs, NOI, BMPs and inspections.

1.7. Describe other proposed activities to address the Construction Site Stormwater Runoff Control Measure:

AMAFCA had Diana McDonald perform a self-audit on the AMAFCA Water Quality Program and identify areas of improvement, as well as recommend changes to the program in order to comply with the Watershed Based Permit.

Section 2. Post-Construction Stormwater Management in New Development and Redevelopment – Proposed BMPs, Stormwater Controls, and Measurable Goals

2.1. Development of strategies as required in Part I.D.5.b.(ii).(a)

Because AMAFCA is strictly a flood control authority, the legal authority and jurisdiction granted to it by the State of New Mexico is limited.
AMAFCA will continue to include both structural and non-structural BMPs to control pollutants in stormwater runoff from AMAFCA owned facilities.

Cooperative Elements

AMAFCA will develop strategies where feasible to contractually require post-construction BMPS on turn-key projects that AMAFCA will take over for operation and maintenance after construction.

2.2. Development of an ordinance or other regulatory mechanism as required in Part I.D.5.b.(ii).(b)

Because AMAFCA is strictly a flood control authority, the legal authority and jurisdiction granted to it by the State of New Mexico is limited.
AMAFCA will develop strategies to contractually address post-construction peak flow runoff from new development and redevelopment projects within AMAFCA's jurisdiction and/or right of ways
to the extent allowable under State, Tribal or local law.

Cooperative Elements

AMAFCA will develop strategies where feasible to contractually address post-construction peak flow runoff on turn-key projects that AMAFCA will take over for operation and maintenance after construction.

2.3. Implementation and enforcement, via the ordinance or other regulatory mechanism, of site design standards as required in Part I.D.5.b.(ii).(b).

Because AMAFCA is strictly a flood control authority, the legal authority and jurisdiction granted to it by the State is limited.

AMAFCA will contractually require addressing post-construction peak flow runoff from new development and redevelopment projects within AMAFCA's jurisdiction and/or right or ways to the extent allowable under State, Tribal or local law.

Cooperative Elements

AMAFCA will contractually require addressing post-construction peak flow runoff on turn-key projects that AMAFCA will take over for operation and maintenance after construction within AMAFCA's jurisdiction and/or right of ways

to the extent allowable under State, Tribal or local law.

2.4. Ensure appropriate implementation of structural controls as required in Part I.D.5.b.(ii).(c) and Part I.D.5.b.(ii).(d)

AMAFCA will continue to ensure the appropriate implementation of structural BMPs through: pre-construction design review, inspection during construction, post-construction inspection and maintenance,

penalty provisions for construction noncompliance, and ineffective operation and maintenance. These items are specifically discussed weekly in the AMAFCA staff meetings and the project schedule meetings.

Cooperative Elements

AMAFCA partners with other MS4's, such as City of Albuquerque, UNM, ExpoNM, on construction of structural BMPs. AMAFCA is also a member of the MS4 TAG cooperative group.

2.5. Develop procedures as required in Part I.D.5.b.(ii).(e), Part I.D.5.b.(ii).(f), Part I.D.5.b.(ii).(g), and Part I.D.5.b.(ii).(h)

AMAFCA contributes to the MRGSQT, which includes training on GI/LID and sustainability practices. This is achieved by sponsoring conferences featuring GI/LID lectures, such as the Land and Water Summit.

Cooperative Elements

AMAFCA will continue to participate in the cooperative called the Middle Rio Grande Storm Water Quality Team (MRGSQT), along with the City of Albuquerque, NMDOT, SSCAFCA, City of Rio Rancho, Sandoval County and Town of Bernalillo.

2.6. Coordinate internally with all departments and boards with jurisdiction over the planning, review, permitting, or approval of public and private construction projects/activities within the permit area as required in Part I.D.5.b.(iii)

AMAFCA will coordinate with all entities as necessary, however, AMAFCA does not have any internal departments or boards with jurisdiction over these matters.
For additional information, see AMAFCA DRAFT Stormwater Management Plan (SWMP) dated October 26, 2015 - page 56

Cooperative Elements

For additional information, see AMAFCA DRAFT Stormwater Management Plan (SWMP) dated October 26, 2015 - page 56

2.7. As required in Part I.D.5.b.(iv), the permittee must assess all existing codes, ordinances, planning documents and other applicable regulations, for impediments to the use of GI/LID/Sustainable practices

Because AMAFCA is strictly a flood control authority, the legal authority and jurisdiction granted to it by the State is limited.
AMAFCA will assess existing codes, ordinances, planning documents and other applicable regulations for impediments to the use of GI/LID/Sustainable practices.

Cooperative Elements

AMAFCA is a member of the TAG cooperative that assesses by discussion existing codes, ordinances, planning documents and other applicable regulations for impediments to the use of GI/LID/Sustainable practices.

2.8. As required in Part I.D.5.b.(iv), describe the plan to report the assessment findings on GI/LID/ Sustainable practices

Because AMAFCA is strictly a flood control authority, the legal authority and jurisdiction granted to it by the State is limited. As a result, AMAFCA is unable to enact codes, ordinances, and other regulatory mechanisms set forth herein.
However, to the extent permitted by law, AMAFCA will comply with the requirements of this section.
For additional information, see AMAFCA DRAFT Stormwater Management Plan (SWMP) dated October 26, 2015 - page 57

Cooperative Elements

Not applicable to AMAFCA.

2.9. Estimation of the number of acres of IA and DCIA as required in Part I.D.5.b.(vi)

AMAFCA will estimate the IA and DCIA within AMAFCA's jurisdiction and/or right of way.

Cooperative Elements

2.10. Inventory and priority ranking as required in section in Part I.D.5.b.(vii)

AMAFCA will continue to meet with MS4s to discuss areas requiring drainage and water quality retrofitting, project priorities, and multi-agency funding. AMAFCA will publish projects, including schedule and cost sharing,
in the biennial AMAFCA Project Schedule. AMAFCA will evaluate the existing BMPs based on their effectiveness and capacity in order to identify where additional BMPs are needed.

Cooperative Elements

AMAFCA will continue to invite all MS4s to the series of meetings for project planning of infrastructure retrofitting. AMAFCA is also a member of the MS4 TAG cooperative group.

2.11. Incorporate watershed protection elements as required in Part I.D.5.b.(viii)

AMAFCA will continue to produce and publish the biennial AMAFCA Project Schedule for all regional drainage and water quality projects within AMAFCA's jurisdiction that will either be led or partly funded by AMAFCA.
For projects led by AMAFCA, watershed protection elements will be incorporated into drainage management plans, as appropriate, in order to identify watersheds which can be retrofitted with regional WQ Facilities.

Cooperative Elements

AMAFCA will continue to invite all MS4s to the series of meetings for project planning of infrastructure retrofitting. AMAFCA is also a member of the MS4 TAG cooperative group.

2.12. Enhance the program to include program elements in Part I.D.5.b.(xi) and Part I.D.5.b.(xii)

AMAFCA will continue to use storm water educational materials, either locally developed or provided by the EPA, NMED, environmental, public interest or trade organizations and/or other MS4s.
AMAFCA will continue to participate in the watershed-planning efforts with other MS4s in order to publish the AMAFCA Project Schedule biennially.

Cooperative Elements

AMAFCA will continue to participate in the storm water education cooperative called the MRGSQT, along with the City of Albuquerque, NMDOT, SSCAFCA, City of Rio Rancho, Sandoval County and Town of Bernalillo.

2.13. Describe other proposed activities to address the Post-Construction Stormwater Management in New Development and Redevelopment Measure:

Because AMAFCA is strictly a flood control authority, the legal authority and jurisdiction granted to it by the State of New Mexico is limited. As a result, AMAFCA is unable to enact codes, ordinances, and other regulatory mechanisms set forth herein.
AMAFCA will begin development of procedures, as appropriate, to insert MS4 Permit elements into construction contracts to provide AMAFCA with a regulatory mechanism.

Section 3. Pollution Prevention/Good Housekeeping for Municipal/Co-permittee Operations – Proposed BMPs, Stormwater Controls, and Measurable Goals

3.1. Develop or update the Pollution Prevention/Good House Keeping program to include the elements in Part I.D.5.c.(i)

AMAFCA plans to continue its Pollution Prevention/Good Housekeeping Program. We recently had a consultant inspect our office, maintenance yard and staging areas within our jurisdiction. We are in the process of implementing changes to improve the AMAFCA Program based on the recommendations provided in the inspection report. Our yard expansion project will include additional structural controls.

Cooperative Elements

AMAFCA is cooperating with the City of Albuquerque regarding staff training-- The City has agreed to share training materials and programs with AMAFCA. AMAFCA is also a member of the MS4 TAG cooperative group.

3.2. Enhance the program to include the elements in Part I.D.5.c.(ii)

AMAFCA will comply with this requirement to the extent it is permitted by law and/or this section is applicable to AMAFCA. AMAFCA will continue to update the existing list of storm water quality facilities by drainage basin.

AMAFCA will continue to assess existing flood control infrastructure for retrofitting for additional pollutant removal.

Cooperative Elements

AMAFCA will continue to cooperate with MS4s within its jurisdiction to assess flood control infrastructure for retrofitting with water quality BMPs. AMAFCA is also a member of the MS4 TAG cooperative group.

3.3. Develop or update a list and a map of industrial facilities owned or operated by the permittee as required in Part I.D.5.c.(iii)

AMAFCA does not own or operate any industrial facilities, and this section is therefore inapplicable.

Cooperative Elements

Not applicable to AMAFCA.

3.4. Describe other proposed activities to address the Pollution Prevention/Good Housekeeping for Municipal/permittee Operations Measure:

AMAFCA recently had a field inspection performed of its maintenance yard and staging areas throughout its jurisdiction. AMAFCA is in the process of implementing administrative and structural changes as a result of the recommendations provided in the inspection report.

Section 4: Industrial and High Risk Runoff – Proposed BMPs, Stormwater Controls, and Measurable Goals (APPLICABLE ONLY TO CLASS A PERMITTTEES)

4.1. Ordinance (or other control method) as required in Part I.D.5.d.(i)

Because AMAFCA is strictly a flood control authority, the legal authority and jurisdiction granted to it by the State is limited. As a result, AMAFCA is unable to develop, implement, and enforce any ordinances or regulatory mechanisms required by this section.

Cooperative Elements

Not applicable to AMAFCA

4.2. Continue implementation and enforcement of the Industrial and High Risk Runoff program, assess the overall success of the program, and document both direct and indirect measurements of program effectiveness in the annual report as required in Part I.D.5.d.(ii)

AMAFCA does not own or operate any industrial or high risk runoff locations and is without jurisdiction over private entities. As such, AMAFCA is without legal authority to implement the requirements of this section.

Cooperative Elements

Not applicable to AMAFCA.

4.3. Meet the monitoring requirements in Part I.D.5.d.(iii)

AMAFCA does not own or operate any industrial or high risk runoff locations and is without jurisdiction over private entities. As such, AMAFCA is without legal authority to implement the requirements of this section.

Cooperative Elements

Not applicable to AMAFCA.

4.4. Include requirements in Part I.D.5.d.(iv)

AMAFCA does not own or operate any industrial or high risk runoff locations and is without jurisdiction over private entities. As such, AMAFCA is without legal authority to implement the requirements of this section.

Cooperative Elements

Not applicable to AMAFCA.

4.5. Enhance the program to include requirements in Part I.D.5.d.(vii)

AMAFCA does not own or operate any industrial or high risk runoff locations and is without jurisdiction over private entities. As such, AMAFCA is without legal authority to implement the requirements of this section.

Cooperative Elements

Not applicable to AMAFCA.

4.6. Describe other proposed activities to address the Industrial and High Risk Runoff Measure:

AMAFCA does not own or operate any industrial or high risk runoff locations and is without jurisdiction over private entities. As such, AMAFCA is without legal authority to implement the requirements of this section.

Section 5. Illicit Discharges and Improper Disposal – Proposed BMPs, Stormwater Controls, and Measurable Goals

5.1. Mapping as required in Part I.D.5.e.(i)(a)

AMAFCA will continue to update its Maintenance Responsibilities for Drainage Facilities in the Albuquerque Metropolitan Area (Map), which illustrates and labels outfalls, water quality BMPs, channels, dams, large
diameter storm drains, and receiving waters within AMAFCA's jurisdiction.

Cooperative Elements

AMAFCA cooperates with the City of Albuquerque, NMDOT, Bernalillo County, and MRGCD to collect their data for AMAFCA's map.

5.2. Ordinance (or other control method) as required in Part I.D.5.e.(i)(b)

Because AMAFCA is strictly a flood control authority, the legal authority and jurisdiction granted to it by the State of New Mexico is limited.
AMAFCA will contractually require the control of non-stormwater discharges from third-party operations within AMAFCA's jurisdiction and/or right of way to the extent allowable under State, Tribal or local law.

Cooperative Elements

AMAFCA will contractually require the control of non-stormwater discharges on turn-key projects that AMAFCA will take over for operation and maintenance after construction to the extent allowable under State, Tribal or local law.

5.3. Develop and implement a IDDE plan as required in Part I.D.5.e.(i)(c)

AMAFCA will continue to implement its IDDE program. AMAFCA currently has a consultant under contract to evaluate the AMAFCA IDDE program and develop recommendations for improving the program in order to comply with the Watershed- Based Permit.

Cooperative Elements

AMAFCA is a member of the cooperative, called MS4 Technical Advisory Group (MS4 TAG).

5.4. Develop an education program as required in Part I.D.5.e.(i)(d)

AMAFCA will continue to participate in the storm water education cooperative called the MRGSQT, which provides educational information regarding storm water quality to the community. The MRGSQT promotes, and publicizes public reporting of illicit discharges and informs the public of hazards associated with illicit discharges and improper waste disposal, as well as proper ways to dispose of hazardous wastes.

Cooperative Elements

AMAFCA will continue to participate in the storm water education cooperative called the MRGSQT, along with the City of Albuquerque, NMDOT, SSCAFCA, City of Rio Rancho, Sandoval County and Town of Bernalillo.

5.5. Establish a hotline as required in Part I.D.5.e.(i)(e)

The City of Albuquerque has established and maintains the metropolitan area 3-1-1 public hotline. AMAFCA intends to continue participating in the 3-1-1 hotline/reporting system. AMAFCA has received good information from this hotline, which is why it is integral to our IDDE program.

Cooperative Elements

AMAFCA plans to continue cooperating with the City of Albuquerque for the 3-1-1 hotline. AMAFCA is also a member of the MS4 TAG cooperative group.

5.6. Investigate suspected significant/severe illicit discharges as required in Part I.D.5.e.(i)(f)

AMAFCA plans to continue investigating suspected significant/severe illicit discharges within 48 hours of detection/reporting and all other discharges as soon as practicable. AMAFCA plans to continue removing/
treating such discharges as expeditiously as possible and requiring immediate cessation of illicit discharges upon confirmation of responsible parties.

Cooperative Elements

AMAFCA is a member of the MS4 TAG cooperative group.

5.7. Review complaint records and develop a targeted source reduction program as required in Part I.D.5.e.(i)(g)

AMAFCA will continue to review complaint records and enter the illicit discharges into GIS in order to develop a targeted source reduction program for those illicit discharge incidents that have occurred more than twice
in 2 or more years from different locations.

Cooperative Elements

AMAFCA is a member of the MS4 TAG cooperative group.

5.8. Screening of system as required in Part I.D.5.e.(iii) as follows:

AMAFCA will continue screening the entire jurisdiction at least once every 5 years and high priority areas at least once every year in accordance with the permit requirements.

Cooperative Elements

The City of Albuquerque staff perform dry weather screening for overlapping portions of the COA and AMAFCA jurisdiction. Also, AMAFCA is a member of the MS4 TAG cooperative group.

5.9. Develop, update, and implement a Waste Collection Program as required in Part I.D.5.e.(iv)

Public waste collection is the responsibility of the municipalities, and not within the jurisdiction of AMAFCA. AMAFCA will continue to regularly collect waste within its rights of way.

Cooperative Elements

Not applicable to AMAFCA.

5.10. Develop, update and implement a Spill Prevention and Response program to prevent, contain, and respond to spills that may discharge into the MS4 as required in Part I.D.5.e.(v)

AMAFCA will continue its Spill Prevention and Response program, which includes reporting requirements, crew training, spill response materials on hand (in maintenance vehicles), and good housekeeping.
The City of Albuquerque is responsible for spill response within the city limits.

Cooperative Elements

AMAFCA will continue to cooperate with the City of Albuquerque for spill response. Also, AMAFCA is a member of the MS4 TAG cooperative group.

5.11. Enhance the program to include requirements in Part I.D.5.e.(ix)

AMAFCA currently has a consultant under contract to evaluate the AMAFCA IDDE program and develop recommendations for improving the program in order to comply with the Watershed-Based Permit.
The scope includes evaluating the procedures and methodologies described in "IDDE, A Guidance Manual for Program Development and Technical Assessments," for incorporation into AMAFCA's IDDE program.

Cooperative Elements

AMAFCA is a member of the MS4 TAG cooperative group.

5.12. Describe other proposed activities to address the Illicit Discharges and Improper Disposal Measure:

AMAFCA had Diana McDonald perform a self-audit on the AMAFCA Water Quality Program and identify areas of improvement, as well as recommend changes to the program in order to comply with the Watershed-Based Permit.

Section 6. Control of Floatables Discharges – Proposed BMPs, Stormwater Controls, and Measurable Goals

6.1. Develop a schedule to implement the program as required in Part I.D.5.f.(i)(a)

AMAFCA will continue to implement the Floatables Control program upon the effective date of the Watershed-Based Permit.

Cooperative Elements

AMAFCA will continue to coordinate with the City of Albuquerque relative to structural BMPs within AMAFCA right-of-way. Also, AMAFCA is a member of the MS4 TAG and MRGSWQT cooperative groups.

6.2. Describe the plan to estimate the annual volume of floatables and trash removed from each control facility and characterize the floatable type as required in Part I.D.5.f.(i)(b)

AMAFCA will continue to estimate the annual volume of floatables and trash removed from each control facility and characterize the floatable type. The AMAFCA operations and maintenance staff and
subcontractors track the volume of floatables, sediment, trash, and debris removed from AMAFCA facilities. They also track the location of removal by facility and watershed.

Cooperative Elements

AMAFCA will continue to coordinate with the City of Albuquerque relative to structural BMPs within AMAFCA right-of-way. Also, AMAFCA is a member of the MS4 TAG and MRGSWQT cooperative groups.

6.3. Describe other proposed activities to address the Control of Floatables Discharges Measure:

AMAFCA had Diana McDonald perform a self-audit on the AMAFCA Water Quality Program and identify areas of improvement, as well as recommend changes to the program in order to comply with the Watershed-Based Permit.

Section 7. Public Education and Outreach on Stormwater Impacts – proposed BMPs, Stormwater Controls, and Measurable Goals

7.1. Develop, revise, implement, and maintain an education and outreach program as required in Part I.D.5.g.(i) and Part I.D.5.g.(ii)

AMAFCA will continue to implement its education and outreach program, including using printed educational materials, keeptheriogrand.org website, signage at select locations, public presentations/events.
The educational messages include proper use or disposal of household hazardous waste, fertilizers, pesticides, motor oil, pet waste, etc.

Cooperative Elements

AMAFCA will continue to participate in the storm water education cooperative called the MRGSQT, along with the City of Albuquerque, NMDOT, SSCAFCA, City of Rio Rancho, Sandoval County and Town of Bernalillo.

7.2. Enhance the program to include requirements in Part I.D.5.g.(v) through Part I.D.5.g.(viii)

AMAFCA will continue to include in its public education and outreach program: GI/LID/Sustainability, litter and pesticide/herbicide reduction, recycling and proper disposal, public hotline for illicit discharge reporting, classroom education on storm water, sponsor professional conferences with relevant educational presentations, and pet waste education.

Cooperative Elements

AMAFCA will continue to participate in the storm water education cooperative called the MRGSQT, along with the City of Albuquerque, NMDOT, SSCAFCA, City of Rio Rancho, Sandoval County and Town of Bernalillo.

7.3. Describe other proposed activities to address the Public Education and Outreach on Stormwater Impacts Measure:

AMAFCA had Diana McDonald person a self-audit on the AMAFCA Water Quality Program and identify areas of improvement, as well as recommend changes to the program in order to comply with the Watershed-Based Permit.

Section 8. Public Involvement and Participation – Proposed BMPs, Stormwater Controls, and Measurable Goals

8.1. Develop (or update), implement, and maintain a public involvement and participation plan as required in Part I.D.5.h.(ii) and Part I.D.5.h.(iii)

AMAFCA will continue its Public Involvement and Participation program, including: uploading SWMP and Annual Report on public websites and providing copies to the Pueblos of Sandia and Isleta.

AMAFCA will also continue participating in the MRGSQT, which participates in public events and solicits public participation by way of surveys regarding impacts of public behavior on storm water quality of the Rio Grande.

Cooperative Elements

AMAFCA will continue to participate in the storm water education cooperative called the MRGSQT, along with the City of Albuquerque, NMDOT, SSCAFCA, City of Rio Rancho, Sandoval County and Town of Bernalillo.

8.2. Describe the plan to comply with State, Tribal, and local notice requirements when implementing a Public Involvement and Participation Program as required in Part I.D.5.h.(iv)

AMAFCA will provide hard copies of all MS4 compliance reporting. The SWMP and Annual Reports are also available on the keeptheriogrand.org and amafca.org websites.

Cooperative Elements

AMAFCA will continue to participate in the storm water education cooperative called the MRGSQT, along with the City of Albuquerque, NMDOT, SSCAFCA, City of Rio Rancho, Sandoval County and Town of Bernalillo.

8.3. Describe a plan to include elements as required in Part I.D.5.h.(v)

AMAFCA will continue to include water quality information for the public at events, including public meetings. Where neighborhoods include Spanish-speaking residents AMAFCA may have Spanish-translation
of public meeting announcements and data sheets. The educational videos on the keeptheriogrand.org all have Spanish subtitles.

Cooperative Elements

AMAFCA will continue to participate in the storm water education cooperative called the MRGSQT, along with the City of Albuquerque, NMDOT, SSCAFCA, City of Rio Rancho, Sandoval County and Town of Bernalillo.

8.4. As required in Part I.D.5.h.(viii) provide the internet site (or website) where the SWMP document, Annual Reports, and other documents will be available to the public.

www.amafca.org and keeptheriogrand.org

8.5. Enhance the program to include requirements in Part I.D.5.h.(ix)

AMAFCA will continue to fund groups which include public participation, such as the Boy or Girl Scouts of America, RiverXchange, and the Bosque Ecosystem Monitoring Program. AMAFCA will continue to participate in the 3-1-1 hotline system.

Cooperative Elements

AMAFCA will continue to participate in the storm water education cooperative called the MRGSQT, along with the City of Albuquerque, NMDOT, SSCAFCA, City of Rio Rancho, Sandoval County and Town of Bernalillo.

8.6. Describe other proposed activities to address the Public Involvement and Participation Measure:

AMAFCA had Diana McDonald perform a self-audit on the AMAFCA Water Quality Program and identify areas of improvement, as well as recommended changes to the program in order to comply with the Watershed-Based Permit.

IV. Proposed Monitoring Program

Indicate wet weather monitoring program preference:

Individual Monitoring Program ☐

Cooperative Monitoring Program ☒

Provide a general description of the propose monitoring program.

AMAFCA will continue to participate in the Storm Water Monitoring and Testing cooperative and invite other MS4s to join. AMAFCA will continue monitoring upstream and downstream of the cooperative MS4s and in the Embayment.

V. Public Participation

Include a Summary of issues raised in any local public comments received by the MS4 Operator on the draft NOI/SWMP and MS4 operator's responses.

VI. Attachments

Attach a location map showing the boundaries of the MS4 under the applicant's jurisdiction. The map must include streets or other demarcations so that the exact boundaries can be located.

Are other attachments included with the NOI? If so, indicate the title of the document(s).

Maintenance Responsibilities for Drainage Facilities in the Albuquerque Metropolitan Area (Map)
Cooperative agreement for the Middle Rio Grande Storm Water Quality Team, aka Storm Water Team, MRGSQ
Cooperative agreement for the Middle Rio Grande MS4 Technical Advisory Group (MS4 TAG)
Cooperative agreement for the Storm Water Monitoring and Testing

VII. Certification

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

Signature:

Printed Name: Jerry M. Lovato Date:

APPENDIX C – AMAFCA'S FACILITIES MAP

Maintenance Responsibilities for Drainage Facilities in the Albuquerque Metropolitan Area

February 2024

SANDOVAL COUNTY

BERNALILLO COUNTY

PUEBLO OF SANDIA

PUEBLO OF ISLETA

Petroglyph National Monument

RIO GRANDE

Ladera Dam System

Double Eagle II Airport

Double Eagle Channel 4

Ladera Dam 16B

Ladera Dam 15

Ladera Dam 14

Ladera Dam 13

Ladera Dam 12

Ladera Dams 1-11

Ladera Dam 9 Diversion

Ladera Dam 5S

Ladera Trabuco Dike

Ladera Golf Course

Ladera Channel

Quickwater Channel

Binconada Channel

Mirabeau Arroyo

Quail Ranch Arroyo

Calabacillas Arroyo

Calabacillas West Branch Arroyo

West Branch Calabacillas Arroyo

W Branch Calabacillas SWQ Ponds A & B

Swinburne Dam

Little Window Dam

Las Ventanas Dam

314 Basin

Paradise Hills GC Pond

North Branch Piedras Marcadas Channel

Chamisa Pond

Sundance Estates Pond

The Trails Ponds (North and South)

La Cuentista Pond

Piedras Marcadas Dam

Piedras Marcadas Channel

Fountain Hills Pond

Cactus Hills Pond

Boca Negra Dam

North Boca Negra Arroyo

Boca Negra Arroyo

South Boca Negra Arroyo

La Orilla Ponds 1 & 2

Mariposa Detention Basin

Mariposa Arroyo

Mariposa Diversion Channel

San Antonio Diversion

Media Branch San Antonio Arroyo

South Branch San Antonio Arroyo

San Antonio Arroyo

Montaño Pump Sta

Montaño Rd

Black Arroyo Dam

Black Arroyo Chute

7 Bar Channel

Skyview Pond

Cabezon Pond

Cabezon Channel

Coors Ponds 1 & 2

Old Black Arroyo Pond

Black Diversion Channel

Oxbow Channel

Corrales Main Ditch

Corrales Outfall

Alameda Rd Detention Pond

Alameda Pump Stn

Alameda Drain

Corrales Riverside Drain

PDN Pump Stn #42

Ortega Pump Stn

Alameda Business Park

Vista Del Norte North Basin

Vista Del Norte Basin

Vista Del Norte South Basin

Taft M.S. Pond

Taft Arroyo

Edith Basin 3 (North & South)

Edith Blvd/Mission Pump Stn

Edith Basin 7

Edith Basin 2

Renaissance Detention Dam

AGP/Montbel Detention Basin

Grantline Channel

Vineyard Arroyo

Hahn Arroyo

North Hahn Arroyo

Comanche Detention Basin

Comanche NE Pump Stn #35

Candelaria Outfall

Menaul Detention Dam

Carlmont Detention Pond & Pump Stn

Princeton/Cutler Pump Stn #36

Princeton Detention Basin

Embudo Channel

Veterans Park Detention Basin/ Odelia Pond

Air Quality Pond

Broadway Pump Stn #33

Marble-Amo Pond

Urban Pump Stn #43

Central Underpass Pump Stn #27

South Broadway Detention Basin

Alcalde Pump Stn #41

Osuna/ La Mesita

Tarpley Pond

Gonzales Pond

Unser Pond

Molten Pond

West Mesa Pond

Laurelwood Pond

West Bluff Pond

Duranes Pump Stn #30

Trellis/Campbell Pump Stn #33

Nature Center Pump Stn #40

Durango Pump Stn #31

Barelas Pump Stn #32

William and Kathryn Pond

Machem Pond

Genevas Arroyo

Kirtland Channel

Albuquerque International Sunport

Fairgrounds NW Detention Basins

Racetrack Detention Basin

Higbland Detention Basin

Kirtland AFB North Detention Dam

Louisiana-Gibson Regional Drainage Facility

Lomas Detention Basin

Lomas Channel

Copper Channel

Manzano Mesa Detention Dam

Hidden Valley Bank Protection & Stabilization

Hidden Valley Channel

Tramway Channel

Four Hills Arroyo

Kinney Dam

North Domingo Baca Channel Window GI

North Domingo Baca Dam

South Domingo Baca Channel

South Domingo Baca Dam

Domingo Baca Channel

North Camino Channel

El Camino Arroyo

El Camino Pond

La Cueva Arroyo

La Cueva Tributary Channel Extension

North La Cueva

South La Cueva

La Cueva Channel

Silver Lakes

North Pino Channel

South Pino Channel

North Pino Arroyo

South Pino Arroyo

Quintessence Ponds #1 & #2

N Pino Diversion Channel

Pino Dam

Pino Arroyo

Bear Trib Diversion Dike

Bear Training Dike

Bear Tributary

Upper Bear Trib Arroyo

Bear Canyon Arroyo

Arroyo Del Oso Dam

John B. Robert Dam

Bear Canyon Channel

North Tramway Channel

Cedarbrook Channel

Embudito Arroyo

North Glenwood Hills Arroyo

South Glenwood Hills Arroyo

Piedra Lisa Arroyo

Piedra Lisa Dam

Embudo Dam

Embudo Arroyo

I-40 Channel

Amole del Norte Detention Dam

Amole Del Norte Channel

Snow Vista Pond

Tower/Sage Detention Dam

Amole Detention Basin 2

Unser and Gibson Pond

Amole Arroyo

Amole Channel

Amole Dam

Westgate Pond #2

Timmaron Pond

Westgate Dam

Powerline Channel

Powerline Ponds

Sarcillo Blanco

West Amole Diversion

East Amole Sedimentation Basin

East Amole Surge Pond

Tempur Channel

West I-40 Storm Drain

East Branch Arroyo

West Branch

98th St Dam

Ladera Dam 16A Diversion Channel

Ladera Dam 16A

Upper Diversion

West I-40 Diversion Channel

Rio Bravo Channel

Hubbell Channel

Hubbell Dam

Los Padillas Extension

Borrega Dam

North Borrega Channel

Adobe Acres Pump Stn

Clay/Vista Pump Stn

Danny's Diversion

Tijeras Channel

Tijeras Sediment Retention Structure

Tijeras Arroyo

Don Felipe Dam

Don Felipe Channel

Pajarito Dr Channel

Pajarito Pond

Raymac Dam

Black Mesa Storm Drain

Los Indios Pond & Diversion

McCoy Dam

Gun Club Channel

Arenal Channel

Arenal Drain

Arroyo Riverside Drain

Valle de Oro Riverside Drain

Valle de Oro Outfall

Valle de Oro 2nd Street

Barr Spur Drain

Barr Channel

Barr Interior Drain

Bridge Blvd Dam

N/S Coors Detention Dam

Yerba Dr Pond

La Farmita Surge Pond

Sanchez Farm

Laguna de Cuervo

Raven Pond

Blake Pond & Lift Stn

Shadyside Pond & Lift Stn

Arroyo Riverside Drain

San Jose Drain

South Diversion Channel

Prince St/ Schwartzmann Ponds A & B

Area A Pond

Double Eagle Channel 4

Petroglyph National Monument

Miles: 0 0.5 1 2 3 4 5

N W E S

Source data are from AMAFCA, the City of Albuquerque, Bernalillo County, the Middle Rio Grande Conservancy District, and New Mexico Department of Transportation. AMAFCA assumes no liability for any errors associated with the use of these data. Users are solely responsible for confirming data accuracy when necessary.

Water Quality Features include: water quality manholes, water quality inlets, ported outlet structures, bar screens, sediment retention basins, and other similar features.

This map was produced by the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA)

AMAFCA

Protecting Life and Property Since 1963

www.amafca.org

- Water Quality, AMAFCA
- Water Quality, BC
- Water Quality, COA
- Water Quality, NMDOT
- Water Quality, Private
- Water Quality, Unknown
- Grade Control Structure
- Pump Station
- ABCWUA Diversion
- Crossing Structure, COA
- Crossing Structure, NMDOT
- Crossing Structure, Unknown
- Dike or berm, AMAFCA
- Dike or berm, BC or AMAFCA
- Dike or berm, COA
- Dike or berm, Unknown
- Hard Channel, AMAFCA
- Hard Channel, AMAFCA/MRGCD
- Hard Channel, Unknown
- Hard Channel, SSCAFCA
- Hard channel, BC
- Hard channel, COA
- Hard channel, NMDOT
- Natural Arroyo
- Soft channel, AMAFCA
- Soft channel, BC
- Soft channel, COA
- Soft channel, MRGCD
- Soft channel, SSCAFCA
- Soft channel, Private/Other
- Soft channel, Unknown
- Storm drain, AMAFCA
- Storm drain, BC
- Storm drain, COA
- Storm drain, MRGCD
- Storm drain, NMDOT
- Storm drain, SSCAFCA
- Storm drain, Unknown
- Pipe or Culvert, VLR
- Petroglyph Nat. Mon.
- Pond, AMAFCA
- Pond, AMAFCA/Corrales
- Pond, BC
- Pond, COA
- Pond, NMDOT
- Pond, Private
- Pond, SSCAFCA
- Detention Basin, VLR
- Dam, AMAFCA
- Dam, BC
- Dam, COA
- Dam, SSFAFCA
- Pond, Unknown
- AMAFCA Districts
- Pueblo Lands
- City of Albuquerque
- City of Rio Rancho
- Village of Los Ranchos
- Unincorporated Areas
- Village of Corrales

Hard channel is typically concrete lined; soft channel is earth or rock lined.
Acronyms: Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA); Albuquerque/Bernalillo County Water Utility Authority (ABCWUA); Middle Rio Grande Conservancy District (MRGCD); Bernalillo County (BC); City of Albuquerque (COA); New Mexico Department of Transportation (NMDOT); United States Forest Services (USFS); Village of Los Ranchos de Albuquerque (VLR)

106°52'0"W 106°50'0"W 106°48'0"W 106°46'0"W 106°44'0"W 106°42'0"W 106°40'0"W 106°38'0"W 106°36'0"W 106°34'0"W 106°32'0"W 106°30'0"W 106°28'0"W 106°26'0"W

35°12'0"N 35°10'0"N 35°8'0"N 35°6'0"N 35°4'0"N 35°2'0"N 35°0'0"N 34°58'0"N

APPENDIX D – COOPERATIVE PROGRAMS

MS4 Permit NMR04A000
AMAFCA SWMP

Appendix D- Cooperative Programs

- Coordination and Cooperation Letters – Construction & Post-Construction Activities
- Draft Example of Cooperative Coordination Letter
- Mid Rio Grande Stormwater Team (MRGSQT) Intergovernmental Agreement, First Amendment to Stormwater Team Intergovernmental Agreement, and Bylaws
- MRGSQT Memorandum of Understanding (MOU)
- Technical Advisory Group (TAG) Memo of Agreement
- Compliance Monitoring Cooperative (CMC) Intergovernmental Agreement
- MOUs for CMC Delegation of Authority for Data Entry into netDMR System
- Letter from EPA Approving AMAFCA Entering the CMC Data for the Group
- Water Authority Overflow Emergency Response Plan – Coordination Plan
- Agency and Area-Wide Flood Control Maintenance Contracts with City of Albuquerque

Bruce M. Thomson, P.E., Chair
Cynthia D. Borrego, Vice Chair
Ronald D. Brown, Secretary-Treasurer
Deborah L. Stover, Assistant Secretary-Treasurer
Tim Eichenberg, Director

Jerry M. Lovato, P.E.
Executive Engineer

Albuquerque Metropolitan Arroyo Flood Control Authority
2600 Prospect N.E., Albuquerque, NM 87107
Phone: (505) 884-2215 Fax: (505) 884-0214
Website: www.amafca.org

November 29, 2016

U.S. EPA, Region 6
Water Quality Protection Division
Operations Support Office (6WQ-O)
1445 Ross Avenue
Dallas, Texas 75202-2733

To Whom It May Concern:

As part of Albuquerque Metropolitan Arroyo Flood Control Authority's (AMAFCA) MS4 permitting requirements we would like to document that AMAFCA currently, and will continue to, coordinate and cooperate with other agencies on cooperative construction projects, as they pertain to stormwater runoff and MS4 compliance. The agency sign-off on plan sets documents this coordination. As part of this cooperative arrangement, review costs will continue to be absorbed by the respective agency.

This letter will become a part of AMAFCA's Stormwater Management Program (SWMP).

Sincerely,

Patrick Chavez, PE
AMAFCA Storm Water Quality Engineer

EPA Concurrence by:

_____ Date _____

Title _____

Bruce M. Thomson, P.E., Chair
Cynthia D. Borrego, Vice Chair
Ronald D. Brown, Secretary-Treasurer
Deborah L. Stover, Assistant Secretary-Treasurer
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Operations Support Office (6WQ-O)
1445 Ross Avenue
Dallas, Texas 75202-2733

To Whom It May Concern:

As part of Albuquerque Metropolitan Arroyo Flood Control Authority's (AMAFCA) MS4 permitting requirements we would like to document that AMAFCA currently, and will continue to, coordinate and cooperate with other agencies and developers on development reviews of projects with overlapping jurisdictions as they pertain to stormwater runoff. Structural and non-structural best management practices (BMPs) may be required, where feasible. The agency sign-off on plan sets documents this coordination. As part of this cooperative arrangement, review costs will continue to be absorbed by the respective agency.

This letter will become a part of AMAFCA's Stormwater Management Program (SWMP).

Sincerely,

Patrick Chavez, PE
AMAFCA Storm Water Quality Engineer

EPA Concurrence by:

_____ Date _____

Title _____

Bruce M. Thomson, P.E., Chair
Cynthia D. Borrego, Vice Chair
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November 29, 2016

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Operations Support Office (6WQ-O)
1445 Ross Avenue
Dallas, Texas 75202-2733

To Whom It May Concern:

As part of Albuquerque Metropolitan Arroyo Flood Control Authority's (AMAFCA) MS4 permitting requirements we would like to document that AMAFCA currently, and will continue to, coordinate and cooperate with other agencies related to drainage and water quality improvements, project priorities, and multi-agency funding opportunities. As part of this cooperative arrangement, coordination costs will continue to be absorbed by the respective agency.

This letter will become a part of AMAFCA's Stormwater Management Program (SWMP).

Sincerely,

Patrick Chavez, PE
AMAFCA Storm Water Quality Engineer

EPA Concurrence by:

_____ Date _____

Title _____

Bruce M. Thomson, P.E., Chair
Cynthia D. Borrego, Vice Chair
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November 29, 2016

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1445 Ross Avenue
Dallas, Texas 75202-2733

To Whom It May Concern:

As part of Albuquerque Metropolitan Arroyo Flood Control Authority's (AMAFCA) MS4 permitting requirements we would like to document that AMAFCA currently, and will continue to, coordinate and cooperate with other agencies on development reviews of projects with overlapping jurisdictions as they pertain to stormwater runoff and opportunities to implement GI/LID/Sustainable practices. The respective agency sign-off on plan sets documents this coordination. As part of this cooperative coordination, review costs will continue to be absorbed by the respective agency.

This letter will become a part of AMAFCA's Stormwater Management Program (SWMP).

Sincerely,

Patrick Chavez, PE
AMAFCA Storm Water Quality Engineer

EPA Concurrence by:

_____ Date _____

Title _____

Bruce M. Thomson, P.E., Chair
Cynthia D. Borrego, Vice Chair
Ronald D. Brown, Secretary-Treasurer
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To Whom It May Concern:

As part of Albuquerque Metropolitan Arroyo Flood Control Authority's (AMAFCA) MS4 permitting requirements we would like to document that AMAFCA currently, and will continue to, coordinate and cooperate with other agencies on development reviews of projects with overlapping jurisdictions as they pertain to stormwater runoff. The agency sign-off on plan sets documents this coordination. As part of this cooperative arrangement, review costs will continue to be absorbed by the respective agency.

This letter will become a part of AMAFCA's Stormwater Management Program (SWMP).

Sincerely,

Patrick Chavez, PE
AMAFCA Storm Water Quality Engineer

EPA Concurrence by:

_____ Date _____

Title _____

Example of Cooperative Coordination Letter

Month xx, 20xx

Mr. Kevin Daggett, P.E.
City of Albuquerque
Municipal Development, Stormwater Management Section
One Civic Plaza, 3rd Floor, Room 301
Albuquerque NM 87102

Mr. Daggett,

As part of AMAFCA's MS4 permitting requirements, we would like to document that AMAFCA and the City of Albuquerque (COA) are currently, and will continue to, coordinate and cooperate regarding the MS4 Dissolved Oxygen Program components required in the Middle Rio Grande Watershed MS4 Permit (NPDES Permit No. NMR04A000). The Dissolved Oxygen Program is specified in the MS4 Permit as "applicable only to the COA and AMAFCA as a continuation of the program in 2012 NMS000101 individual permit" – Part I.C.1.d. The Dissolved Oxygen Program is also required as part of the MS4 Permit in the Endangered Species Act requirements section – Part I.C.3.a.

AMAFCA has developed a strategy and related procedures for meeting the MS4 Dissolved Oxygen Program requirements. These documents are attached to this letter for your records. AMAFCA will continue to operate the sondes required to meet the monitoring requirements for the Dissolved Oxygen Program and continue to complete and submit the annual Incidental Take Report for EPA and US Fish and Wildlife Service (USFWS).

If you have any comments or suggestions for improving the attached strategy and procedures, please contact Patrick Chavez. As part of this cooperative arrangement, program costs will continue to be absorbed by each respective agency.

Please sign and return this letter indicating your concurrence that the City of Albuquerque will continue to coordinate and cooperate with AMAFCA throughout the duration of the NMR04A000 MS4 Permit which was authorized by EPA dated December 22, 2014.

This letter will become a part of AMAFCA's Stormwater Management Plan (SWMP) and MS4 Annual Report documentation. I would suggest that you retain a copy for your records also.

Sincerely,

AMAFCA

City of Albuquerque Concurrence by:

_____ Date _____

Title _____

DRAFT

contract book
2008-29

Intergovernmental Agreement Regarding the Operation, Function, and Funding of the Storm Water Team

THIS AGREEMENT is made and entered into this 27th day of August, 2008, by and among the County of Bernalillo ("COUNTY"), the City of Albuquerque ("COA"), the Albuquerque Metropolitan Arroyo Flood Control Authority ("AMAFCA"), the New Mexico Department of Transportation ("NMDOT"), the Southern Sandoval County Arroyo Flood Control Authority ("SSCAFCA"), and the Ciudad Soil and Water Conservation District ("CIUDAD"), all political subdivisions of the State of New Mexico, and the University of New Mexico ("UNM"), a state educational institution, individually referred to as "Party" and collectively referred to as "Parties."

WITNESSETH:

WHEREAS, the National Pollution Discharge Elimination System (NPDES) storm water discharge permits for small and large municipal separate storm sewer systems ("MS-4") include a minimum control measure regarding public outreach and education; and

WHEREAS, this minimum control measure requires each permittee to develop and distribute educational materials to the community or conduct equivalent public outreach activities about the impacts of storm water discharges on receiving water bodies and the actions that the public can take to reduce pollutants in storm water runoff; and

WHEREAS, COA, AMAFCA, NMDOT, and UNM, co-permittees of a MS-4 Phase I permit, and the COUNTY, a permittee of a Phase II permit, entered into a Cooperative Agreement dated October 20, 2005 in order to accomplish said public outreach and education, and the group informally became known as the Storm Water Team; and

WHEREAS, the Storm Water Team hired a Storm Water Quality Education Coordinator ("Coordinator") to help develop a public education campaign and produce public service announcements including print materials for distribution, and that contract expires November 2008; and

WHEREAS, SSCAFCA desires to combine efforts to educate the public on storm water quality as required in their Phase II storm water discharge permit, and to become one of the participating agencies of the Storm Water Team; and

WHEREAS, CIUDAD desires to combine efforts to educate the public on storm water quality as part of their Watershed Restoration Action Strategy, and to become one of the participating agencies of the Storm Water Team; and

WHEREAS, SSCAFCA and CIUDAD both desire to provide funding as part of their membership to the Storm Water Team; and

WHEREAS, each Party has an interest in reducing pollution and/or meeting storm water permit requirements within their respective boundaries, which are shown in Exhibit 1; and

WHEREAS, with new members being added, it is appropriate to enter into this Agreement in order to formalize the Storm Water Team mission and function, and establish future funding streams.

THEREFORE IN CONSIDERATION OF THE PROMISES AND COVENANTS CONTAINED HEREIN, THE PARTIES HERETO AGREE AS FOLLOWS:

1. The Storm Water Team ("Team") will include all members that have signed a Cooperative Funding Agreement, comply with its terms and continue to fund the team. Additional non-voting members will include other agencies, organizations, or individuals that will provide technical assistance needed to allow the Team to accomplish its mission.
2. The Team will serve as the focal point on public education and outreach regarding storm water quality in the Albuquerque Reach of the Rio Grande watershed, which is

the area that drains to the Rio Grande between Algodones and Isleta Pueblo. The Team mission statement is hereby agreed to by the Parties:

The Storm Water Team is a multi-agency committee dedicated to providing public education and awareness regarding storm water pollution and how to reduce debris and other pollutants in the Albuquerque Reach of the Rio Grande and its tributary arroyos.

3. The Team will have an Executive Committee made up of one voting member from each Party in good standing, which is defined as having paid their expected contribution, as described in Section 4. Each Party in good standing will designate a staff member to be on the Executive Committee. Other staff liaisons will be assigned to the Team as necessary to support the Team mission. Other/outside agencies may participate on the Team by attending meetings and giving input; however, only the Executive Committee may vote on Team decisions. The purpose of the Executive Committee will be to administer and direct the Team and Coordinator in accordance with the provisions herein. Decisions of the Executive Committee will be decided by majority vote of the Executive Committee.

4. Each Party agrees to provide payment for Fiscal Year 2009 in the amount shown in the Contribution Schedule, which may include the value of Executive Committee approved in-kind services, in Attachment A. For subsequent Fiscal Years, the Contribution Schedule may be adjusted by the Executive Committee, including the value of in-kind contributions.

5. AMAFCA will be the fiscal agent for the purposes of this Agreement. All funds will be held in a separate bank account for the purposes of this Agreement. AMAFCA shall make available to any interested Party, all records, receipts, and other

documentation with respect to all matters concerning this Agreement, and shall have this account included in its annual audit.

6. Each Party agrees that a Storm Water Quality Education Coordinator will be hired through the Request for Proposal (RFP) process in advance of the expiration of the current Coordinator's contract. The Coordinator shall be a contractor and not an employee of AMAFCA. Responsibilities included in the Storm Water Quality Education Coordination contract will be to develop and manage a comprehensive educational and awareness campaign, arrange all purchases for deliverables and advertising on behalf of the Team, and make presentations to the public as directed. Each Party will have one representative on the Selection Advisory Committee for the request for proposals process. The Selection Advisory Committee will rank proposals and recommend the top three respondents to the AMAFCA Board of Directors. Upon AMAFCA Board of Directors' approval, AMAFCA will negotiate an agreement with the selected consultant. The Executive Committee will provide input on scope and fees; however, final negotiations and approval will be at AMAFCA's sole discretion.

7. The Parties agree that the Storm Water Quality Education Coordination contract is an ongoing program. The effectiveness of the Storm Water Quality Education Coordination contract, with regard to the Team mission statement, will be evaluated prior to annual renewal(s) or request for proposals.

8. AMAFCA will invoice each Party for their respective participation, minus the value of any Executive Committee approved in-kind contributions, in July, at the start of the Fiscal Year. Each Party will pay such invoices to AMAFCA within forty-five

(45) days of the date of the invoice. Invoices will be sent to Team members listed in Attachment B.

9. It is intended that the Team's operation and function described in this Agreement are ongoing, subject to continued support and authorized funding by each of the Parties. Each Party has the option to not participate in this Agreement in the future by sending written notice to all the other participating Parties at or before the expiration of the Fiscal Year. In such event, the terminating Party shall not be entitled to return of any contribution(s) made under this Agreement; and this Agreement shall remain in full force and effect by and among the remaining Parties.

10. The Team may accept one-time contributions from outside funding sources, to be used to support the Team mission. The Executive Committee will consider the requested uses of such one-time contributions and will ensure the uses are consistent with the Team's ongoing public outreach and education program. Such contributions shall not constitute voting privileges on the Executive Committee.

11. The Parties agree that effort will be expended within the respective boundaries of each participating agency, proportional to funding contributions.

12. If any situation arises which adversely affects any Party's participation in this Agreement, said Party will immediately, and in writing, notify the other Parties. Any circumstance that materially affects this Agreement will be promptly and equitably resolved by all Parties and if necessary, an amendment to this Agreement shall be executed.

13. The obligations of each Party under this Agreement shall be performed in compliance with all applicable laws, statutes and ordinances. Nothing herein is intended to

constitute any agreement for the Parties to perform any activity in violation of the Constitution or Laws of the State of New Mexico or the Ordinances of any entity that is a Party to this Agreement.

14. If any clause or provision in this Agreement is illegal, invalid or unenforceable, under present or future laws effective during the term of this Agreement, then and in that event, it is the intention of the parties hereto that the remainder of this Agreement shall not be affected thereby.

15. It is specifically agreed among the Parties that this Agreement does not, and is not intended to, create in the public, or any member thereof, any rights whatsoever, such as but not limited to, the rights of a third Party beneficiary, nor to authorize anyone not a Party to this Agreement to maintain a suit for wrongful death or any other claim whatsoever.

16. As among the Parties, each shall be solely responsible for any and all liability from personal injury, including death, or damage to property, arising from any negligent or intentional act or failure to act of the respective Party, its officials, agents, contractors or employees pursuant to this Agreement. Liabilities of each Party shall be subject to the immunities and limitations of the Tort Claims Act, §§41-4-1, et seq., NMSA, 1978, and any amendments thereto. By entering into this Agreement, the COUNTY and its "public employees" as defined in the New Mexico Tort Claims Act, the COA and its "public employees" as defined in the New Mexico Tort Claims Act, AMAFCA and its "public employees" as defined in the New Mexico Tort Claims Act, NMDOT and its "public employees" as defined in the New Mexico Tort Claims Act, UNM and its "public employees" as defined in the New Mexico Tort Claims

Act, SSCAFCA and its "public employees" as defined in the New Mexico Tort Claims Act, and CIUDAD and its "public employees" as defined in the New Mexico Tort Claims Act, do not waive sovereign immunity, do not waive any defense and/or do not waive any limitation of liability pursuant to law. No provision in this Agreement modifies and/or waives any provision of the New Mexico Tort Claims Act.

17. The effective date of this Agreement shall be the latest date of approval by all of the interested Parties.

18. Upon approval by all Parties, the covenants, terms and conditions of this Agreement shall be binding upon and inure to the benefit of the Parties hereto, their successors and assigns.

IN WITNESS WHEREOF, the undersigned have caused this Agreement to be executed as of the day and year set forth above.

Albuquerque Metropolitan Arroyo Flood Control Authority

Date: March 20, 2008

Danny Hernandez
Chair of the Board of Directors

Attest:

Tim Eichenberg,
Secretary/Treasurer

Date: March 20, 2008

County of Bernalillo

Date: 5/21/08

Thaddeus Lucero, County Manager

Approved As To Form Only:

Deborah Seligman,
Assistant County Attorney

Date: 5/19/2008

Recommended By:

Tom Zdunek

~~Tim West~~ XXXXXXXX, Deputy County Manager
Public Works Division

Date: 5/21/08

BC CCN 2008-0264

City of Albuquerque

Approved As To Form Only:

_____
City Attorney

Date: 5-12-8

Recommended By:

_____
John Castillo, Director

Date: 5/13/08

Approved By:

_____
Dr. Bruce Perlman, Chief Administrative Officer

Date: 5/16/08

University of New Mexico

Recommended By:

Donna K. Smith
Director, Safety & Risk Services

Date: 4-23-8

Approved As To Form Only:

Richard Mertz
Associate University Counsel

Date: 4/29/08

Approved By:

David W. Harris
Executive Vice President for Administration

Date: 5/1/08

New Mexico Department of Transportation

Approved As To Form Only:

G Chappelle

Office of the General Counsel

Date: 5/22/08

Approved By:

Larry Velasquez, NMDOT District Three Engineer

Date: 8/28/08

Ciudad Soil and Water Conservation District

Date: April 7, 2008

Lauro Silva

Lauro Silva, Chair

Approved as to Form:

Bernard P. Metzgar
SSCAFCA Attorney

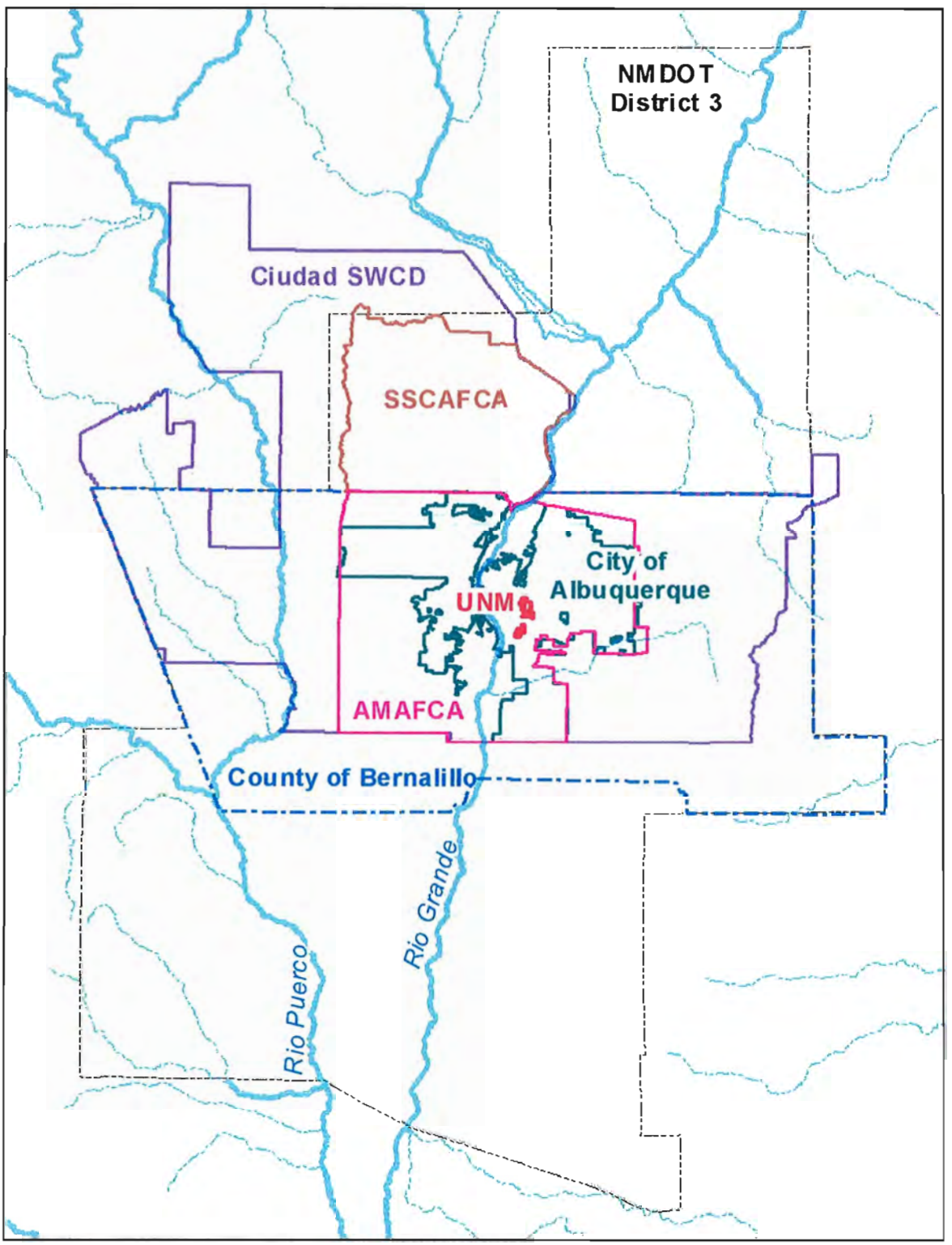
Date: 4/18/08

Southern Sandoval County
Arroyo Flood Control Authority

Date: 5/2/08

John Chaney, Chairman

Exhibit 1
Boundaries of Participating Agencies



Storm Water Team Intergovernmental Agreement – Attachment A

STORM WATER TEAM CONTRIBUTIONS

		Date received by AMAFCA	
FY 05			
AMAFCA	$10,000	12/01/2004	
City of Albuquerque	10,000	04/28/2005	
County of Bernalillo	10,000	12/02/2004	
UNM	7,000*	07/19/2005	* $5,000 in cash, $2,000 in KNME video
NMDOT	10,000	05/26/2005	
Total	**$47,000**		
FY 06			
AMAFCA	$10,000	12/23/2005	
City of Albuquerque	10,000	01/23/2006	
County of Bernalillo	10,000	06/29/2006	
UNM	7,000	02/02/2006	
NMDOT	10,000	06/29/2006	
Total	**$47,000**		
FY 07			
AMAFCA	$10,000	03/21/2007	
City of Albuquerque	10,000	06/13/2007	
County of Bernalillo	10,000	02/11/2008	
UNM	7,000	05/22/2007	
NMDOT	10,000	04/02/2008	
Total	**$47,000**		
FY 08			
AMAFCA	$10,000	10/03/2007	
City of Albuquerque	10,000	09/25/2007	
County of Bernalillo	10,000	03/18/2008	
UNM	7,000	12/10/2007	
NMDOT	10,000	04/02/2008	
Total	**$47,000**		
FY 09 Expected Contributions			
AMAFCA	$10,000		
City of Albuquerque	10,000		
County of Bernalillo	10,000		
UNM	7,000		
NMDOT	10,000		
SSCAFCA	10,000		
Ciudad	10,000		
Total	**$67,000**		

Storm Water Team Intergovernmental Agreement - Attachment B

STORM WATER TEAM CONTACT ADDRESSES

Christy Burton
AMAFCA
2600 Prospect Ave NE
Albuquerque, NM 87107

cc Irene Jeffries (same address)
on invoices

Storm Drainage Section
Dept. of Municipal Development
Attn: Kathy Verhage
P.O. Box 1293, Rm. 301
Albuquerque, NM 87103

cc Roland Penttila (same address)
on invoices

Vern Hershberger
Safety & Risk Services
1 University of New Mexico
MSC07 4100
Albuquerque, NM 87131

Send original invoices to:
Accounts Payable
1 University of New Mexico
MSC01 1290
Albuquerque, NM 87131

Carol Moritz, Administrative Manager
Ciudad Soil & Water Conservation District
6200 Jefferson NE, Room 125
Albuquerque, NM 87109

Kathy Trujillo
New Mexico Department of Transportation
District 3
PO Box 91750
Albuquerque, NM 87199-1750

Patricia Dominguez
Bernalillo County
Public Works Division
2400 Broadway Blvd SE
Bldg N
Albuquerque, NM 87102

cc Mary Murnane (same address)
on invoices

David Stoliker
SSCAFCA
1041 Commerical N.E.
Rio Rancho, New Mexico 87124

FIRST AMENDMENT TO
"Intergovernmental Agreement Regarding the Operation, Function, and Funding of the Storm Water Team"

THIS FIRST AMENDMENT to Intergovernmental Agreement ("Agreement") Regarding the Operation, Function, and Funding of the Storm Water Team ("Team") is made and entered into this 22nd day of January, 2014, by and among the County of Bernalillo, the City of Albuquerque ("COA"), the Albuquerque Metropolitan Arroyo Flood Control Authority ("AMAFCA"), the New Mexico Department of Transportation ("NMDOT"), and the Southern Sandoval County Arroyo Flood Control Authority ("SSCAFCA"), all political subdivisions of the State of New Mexico, individually referred to as "Party" and collectively referred to as "Parties."

RECITALS:

WHEREAS, the U.S. Environmental Protection Agency ("EPA") is proposing to issue the Middle Rio Grande Watershed Based Municipal Separate Storm Sewer System (MS4) Permit, to supersede the existing MS4 Permits for Phase I and Phase II permittees; and

WHEREAS, the EPA has identified the following potentially eligible MS4s: COA, AMAFCA, University of New Mexico, NMDOT, County of Bernalillo, County of Sandoval, Village of Corrales, City of Rio Rancho, Village of Los Ranchos de Albuquerque, Kirtland Air Force Base, Town of Bernalillo, State Fairgrounds Expo NM, SSCAFCA, Eastern Sandoval County Arroyo Flood Control Authority ("ESCAFCA"), Sandia National Laboratories, Pueblo of Sandia, Pueblo of Isleta, and Pueblo of Santa Ana; and

WHEREAS, the EPA promotes Cooperative Programs of two or more MS4s to satisfy one or more permit obligations by granting extended Implementation Schedules; and

FIRST AMENDMENT TO
"Intergovernmental Agreement Regarding the Operation, Function, and Funding of the Storm Water Team"

WHEREAS, the MS4 Permits include minimum control measures regarding Public Education and Outreach on Stormwater Impacts and Public Involvement and Participation; and

WHEREAS, the Parties of the Team find it in the best interest to extend annual membership to the potentially eligible MS4s; and

WHEREAS, the Ciudad Soil and Water Conservation District and University of New Mexico were Parties to the original Agreement, but elected to terminate funding and their participation as Parties to the Agreement prior to this Amendment; and

WHEREAS, the Team also operates under the name Middle Rio Grande Stormwater Quality Team.

NOW THEREFORE, County of Bernalillo, COA, AMAFCA, NMDOT, and SSCAFCA hereby agree to amend the original Agreement as follows:

Paragraph No. 1 shall be modified in its entirety to read as follows: The Team will include all members that have signed a Cooperative Funding Agreement, comply with its terms and continue to fund the Team ("Parties"). Potentially Eligible MS4s may be added to the Team at any time on an annual basis as additional voting members ("Annual Member") without amending this Agreement, provided all requirements for membership have been fulfilled, including providing payment for that Annual Member's expected contribution as described in Section 4. Upon approval by the Team, and without the need to amend this Agreement, other entities may be added to the Team at any time in an advisory capacity only ("Non-Voting Members"). The Team shall establish the requirements for inclusion of an entity on the Team as a Non-Voting Member. The Fiscal Agent will maintain an Annual Roster in the

form set forth in Attachment B, which shall list all Parties and Annual Members in good standing and Non-Voting Members approved by the Team. The Annual Roster shall include the contact information for each entity and, if applicable, their designated voting member and billing information. The Annual Roster shall be updated and revised at least annually to reflect the current Parties, Annual Members, and Non-Voting Members and without the need to amend this Agreement. Parties and Annual Members must remain in good standing by providing payment for their respective contributions in order to continue to participate on the Team as either a Party or Annual Member. Any Party and/or Annual Member that does not maintain good standing will be removed from the Annual Roster, and all membership rights will be suspended, except that the entity shall be permitted to participate as a Non-Voting Member. Upon payment of the Party or Annual Members required contribution, the Party or Annual Member will be restored to full membership and will be listed as a Party or Annual Member in good standing, whichever applies, on the Annual Roster.

Paragraph No. 2 shall be modified in its entirety to read as follows: The primary objective of the Team is to develop a program to meet the Public Education, Outreach, Involvement and Participation requirements of the MS4 Permits in effect for each Party and Annual Member.

Paragraph No. 3 shall be modified in its entirety to read as follows: Each Party and Annual Member in good standing will designate one person from its staff to serve as the voting member. The voting members from each Party in good standing shall form the Executive Committee of the Team, which shall administer and direct the Team and Coordinator in accordance with the provisions herein. The voting members from each Annual

Member in good standing shall be permitted to participate in the activities, votes, and decisions of the Executive Committee, except as otherwise set forth in this Agreement. Non-Voting Members, other staff liaisons assigned to the Team as necessary to support the Team's objectives, and other individual staff members may participate on the Team by attending meetings and giving input, provided however, that only the Executive Committee and voting members of the Annual Members may vote on Team decisions. Decisions of the Team will be decided by majority vote of those members of the Executive Committee and voting members of the Annual Members present, except as otherwise set forth in this Agreement.

Paragraph No. 4 shall be modified in its entirety to read as follows: The annual contribution of each Party and Annual Member shall be established for each fiscal year by the Contribution Schedule set forth in Attachment A. Each Party and Annual Member agrees to provide payment for its contribution in the amount shown in the Contribution Schedule, which may include the value of in-kind services previously approved by the Executive Committee for such purposes. Annual revisions and/or adjustments to the Contribution Schedule shall be determined by majority vote of the Executive Committee. The voting members representing Annual Members may participate in discussions regarding revisions and/or adjustments to the Contribution Schedule, but will not be permitted to vote on any such revisions or adjustments. The Fiscal Agent will keep record of future changes to the Contribution Schedule on Attachment A. Revisions to Attachment A will not require an amendment to this Agreement.

FIRST AMENDMENT TO
"Intergovernmental Agreement Regarding the Operation, Function, and Funding of the Storm Water Team"

IN WITNESS WHEREOF, the undersigned have caused this FIRST AMENDMENT to be executed as of the day and year set forth above.

Albuquerque Metropolitan Arroyo Flood Control Authority

Date: 11/7/2013

Tim Eichenberg
Chair of the Board of Directors

Attest:

Bruce M. Thomson
Secretary/Treasurer

Date: 11/7/13

FIRST AMENDMENT TO
"Intergovernmental Agreement Regarding the Operation, Function, and Funding of the Storm Water Team"

County of Bernalillo

Date: 12/16/10

Tom Zdunek, County Manager

Approved As To Form Only:

Peter Auh,
Deputy County Attorney

Date: 12/12/13

Recommended By:

12/13/13

Jarvis D. Middleton P.E.
Deputy County Manager for Public Works

Date: 12/13/13

FIRST AMENDMENT TO
"Intergovernmental Agreement Regarding the Operation, Function, and Funding of the Storm Water Team"

City of Albuquerque

Approved As To Form Only:

City Attorney

Date: 1/7/2014

Recommended By:

Michael Riordan, Director

Date: 1.9.14

Approved By:

Robert J. Perry, Chief Administrative Officer

Date: 1/22/14

FIRST AMENDMENT TO
"Intergovernmental Agreement Regarding the Operation, Function, and Funding of the Storm Water Team"

New Mexico Department of Transportation

Approved By:

Timothy L. Parker, M.S., P.E.
NMDOT District Three Engineer

Date: 12/22/13

Approved As To Form Only:

Office of the General Counsel

Date: 12/20/2013

FIRST AMENDMENT TO
"Intergovernmental Agreement Regarding the Operation, Function, and Funding of the Storm Water Team"

Approved as to Form:

Bernard P. Metzgar
SSCAFCA Attorney

Date: 11/15/13

Southern Sandoval County
Arroyo Flood Control Authority

Date: 11/15/13

Donald Rudy, Chairman

MIDDLE RIO GRANDE STORMWATER QUALITY TEAM
BYLAWS

ARTICLE I: NAME AND PURPOSE

These bylaws have been proposed and accepted by majority vote of the Storm Water Team ("Team") Voting Members as defined herein, on August 27, 2014. These bylaws stand as operating principles in addition to the "Intergovernmental Agreement Regarding the Operation, Function, and Funding of the Storm Water Team" ("Original Agreement") implemented in 2008, and the "First Amendment to the Intergovernmental Agreement Regarding the Operation, Function, and Funding of the Storm Water Team" ("First Amendment") as signed and finalized in 2014 and any subsequent amendments as signed and finalized. In the event of a conflict between the terms of these bylaws and the Original Agreement and/or First Amendment, the Original Agreement and/or First Amendment shall control.

ARTICLE II: THE EXECUTIVE COMMITTEE AND VOTING MEMBERS

The voting members of the Team ("Voting Members"), and the members of the executive committee ("Executive Committee"), shall be those identified as such in the First Amendment.

ARTICLE III: OFFICERS

Section 1

Officers of the Team shall include the following:

A. *Chair*. Responsible for directing meeting activities in conjunction with business agendas, and generally ensuring the effectiveness of the Team.

B. *Secretary*. Acts as the record-keeper for the Team, including recording the minutes of all meetings and making the minutes and records available to members upon request. Minutes shall include at a minimum a record of all votes, resolution of agenda items, those agenda items carried over for further discussion, and other discussion or notes for the next meeting. The Secretary is also responsible to keep on file all committee reports, the Team's official membership roll and to call roll where it is required.

C. *Treasurer*. Responsible for providing a Treasurer's Report at each meeting, which may consist of the cash balance and outstanding obligations or committed costs. In addition, the Treasurer is required to make a full financial report annually in conjunction with the Fiscal Agent. The annual financial report may consist of summary of annual receipts and disbursements. The Treasurer shall also serve as the Chair *pro tem* and preside over meetings in the absence of the Chair.

In the event that the number of Voting Members exceeds eight (8), the functions of Treasurer shall be divided into two (2) positions: Treasurer and Vice Chair. In such event, the Treasurer shall retain all financial functions, and the Vice Chair shall serve as the Chair *pro tem* and preside over meetings in the absence of the Chair. The Vice Chair shall be elected by majority vote of Voting Members present at the next meeting of the Team and serve the remainder of the fiscal year.

Section 2

Election of all officers shall take place at the first scheduled meeting of each Fiscal Year. Officers of the Team shall be elected by majority vote of the Voting Members present. Each officer shall serve one year, and may succeed themselves in office so long as elected in accordance with these bylaws for each subsequent term. An officer may only be removed from office by a majority vote of all Voting Members.

Section 3

In the event an officer resigns prior to the expiration of their term, their successor shall be elected at the next meeting of the Team. A successor elected to fill a vacancy in an office due to an officer's resignation or removal shall serve the remainder of the vacated term. Until a successor is elected, the remaining officer(s) shall assume the duties of the vacant office, with the exception of a vacancy in the position of Chair, which duties shall be assumed by the Vice Chair if that position then-exists.

ARTICLE IV: COMMITTEES

A Budget Committee will be formed each year in order to manage the budget and coordinate with the Fiscal Agent regarding all financial matters. Additional or other working committees or groups may be formed to address issues or projects which may arise upon the majority vote of the Voting Members present.

ARTICLE V: MEETINGS

Section 1

Meetings shall be officially scheduled during the first meeting of the fiscal year, with meetings to be scheduled bi-monthly. The complete annual schedule shall be distributed to Voting Members via e-mail. Posting or e-mailing of the annual schedule shall constitute notice for all meetings listed therein.

Section 2

Alternate meeting dates must be scheduled no later than the prior month's meeting by majority vote of the Voting Members. Additional meetings may be called for and scheduled by majority vote of Voting Members. The Chair may cancel any regularly scheduled meeting if no items are before the Team for that meeting, provided however, that the Team shall hold a minimum of four (4) meetings per year.

Section 3

The Chair shall distribute the agenda to all Voting Members at least one (1) week prior to any meeting. Order of agenda items and deletion or addition of items may be changed by majority vote of the Voting Members.

Section 4

Notice of the annual schedule, meeting dates and agendas should be posted on the "Keep the Rio Grand" website.

Section 5

Meetings shall be presided over by the Chair and shall be conducted in substantial compliance with Robert's Rules of Order. Voting Members shall be considered members for purposes of applying Robert's Rules of Order.

Section 6

Members of the public may request time on the meeting agenda by request to the Chair or Education Coordinator at least ten (10) days prior to a scheduled meeting. The Chair may include such an item, or list it to be considered if time allows.

ARTICLE VI: RULES OF VOTING

Section 1

At all meetings of the Team, the presence of at least a majority of the Voting Members of the Team shall be necessary and sufficient to constitute a quorum for the transaction of business. Any action of the Team upon any matter shall be valid and effective, with the affirmative vote of a majority of the Voting Members present at a meeting duly convened and at which a quorum is present, unless otherwise required herein or by the Original Agreement or First Amendment. In the event the agenda includes items which require a quorum vote and a quorum is not established, the item shall be moved to the next meeting. Voting shall be conducted in substantial compliance with Robert's Rules of Order, except provided for otherwise herein.

Section 2

Any item may be approved by acclamation or by roll-call vote, unless otherwise required by Robert's Rules of Order. Any Voting Member may call for a vote on any item under discussion at any time during a meeting. If that call for vote is seconded, the Chair shall open for discussion, and call for a vote. Likewise, any item may be tabled by a two-thirds vote. All votes shall be recorded by the Secretary. In the event of a tie, any Voting Member may call for a re-vote.

Section 3

Any Voting Member who must be absent from a meeting and consequent vote(s) may delegate their vote to a temporary replacement from their agency.

Section 4

Electronic or e-mail voting on business between regularly scheduled meetings shall be permitted in accordance with the policy duly adopted by the Team.

ARTICLE VII: FINANCES

Section 1

An annual budget for the Team shall be adopted prior to the beginning of each fiscal year. The fiscal year for the Team runs from July 1 to June 30. The annual budget shall be subject to a vote. An updated budget shall be presented at each meeting.

Section 2

The Fiscal Agent shall be AMAFCA or any other entity identified as such in the Original Agreement and the First Amendment and any subsequent amendments as signed and finalized.

Section 3

The annual budget shall contain a line-item for an Education Coordinator selected by the Team. Selection of the Education Coordinator shall be subject to a vote.

Section 4

All expenditures for special projects shall be determined by a simple majority vote of the Voting Members. Proposals and projects including a scope of work and cost shall be voted and approved before any work shall commence.

Section 5

Invoices for prior approved projects shall include a percentage of work accomplished, or itemized direct costs, as well as a current schedule for completion. Invoices exceeding the percentage of work accomplished shall not be paid, except where prior approved direct itemized costs are billed.

Invoices for prior approved projects may be approved at any time either at a meeting or via email by one of the following Officers in the order listed: (1) Treasurer; (2) Chair; (3) Chair pro tem or Vice Chair; or (4) Secretary. Invoices for work in progress (partial payments) shall be evaluated according to the percentage of work completed and the percentage of money drawn.

Any invoices for expenditures not previously approved by majority vote of the Voting Members can only be approved during a scheduled meeting.

ARTICLE VIII: AMENDMENTS

These bylaws may be amended during a scheduled meeting upon a two-thirds vote of the Voting Members present. Notice of discussion and amendment shall be posted in the agenda at least seventy (72) hours prior to the scheduled meeting at which the vote will be taken. This notice must include both the text of the current bylaws, as well as the text of any proposed change(s). Amendments become effective immediately upon adoption.

MEMORANDUM OF UNDERSTANDING
BY AND BETWEEN
THE MID RIO GRANDE STORMWATER QUALITY TEAM AND
CIUDAD SOIL AND WATER CONSERVATION DISTRICT

This Memorandum of Understanding (hereinafter the "MOU") is entered into this ____ day of _____, 2020, between the Mid Rio Grande Stormwater Quality Team, an intergovernmental agency organization consisting of the City of Albuquerque, Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA), New Mexico Department of Transportation District 3, Sandoval County, Village of Corrales, City of Rio Rancho, Los Ranchos de Albuquerque, Town of Bernalillo the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA), and the Eastern Sandoval County Arroyo Flood Control Authority (ESCAFCA), (hereinafter collectively referred to as "MRGSQT") and Ciudad Soil and Water Conservation District, a political subdivision of the State of New Mexico (hereinafter referred to as "Ciudad SWCD"),

WHEREAS, MRGSQT has entered into a Cooperative Funding Agreement establishing the MRGSQT; and

WHEREAS, MRGSQT is responsible for developing and implementing a public education and outreach program in the area designated as being subject to the EPA MS4 stormwater permits; and

WHEREAS, MRGSQT desires to engage Ciudad SWCD to render comprehensive water resources education services, as indicated in the attached scope of work (Exhibit A), and Ciudad SWCD is willing to provide such services and to enter into this MOU;

WHEREAS, Ciudad SWCD jurisdiction includes the area served by MRGSQT and has employed education specialists qualified to provide comprehensive water resources education, and

WHEREAS, Ciudad SWCD has legal authority to enter into this agreement as established at 73-20-44 NMSA; and

WHEREAS, Ciudad SWCD and MRGSQT (collectively referred to as the “Parties”) have agreed upon a proposal, attached hereto as Exhibit A; and

NOW, THEREFORE, in consideration of the premises and mutual obligations set forth herein, the parties agree as follows:

1. MRGSQT OBLIGATIONS.

Upon receipt of detailed invoice from Ciudad SWCD, MRGSQT shall review, approve and pay said invoices no later than 60 days from receipt.

2. CIUDAD SWCD OBLIGATIONS:

Ciudad SWCD shall:

A. Perform water resources education consulting services for MRGSQT as contained in the attached proposal dated July 1, 2020 (Exhibit A) and based upon the terms and conditions set forth herein. All work performed shall attempt to meet the highest ethical and moral standards and shall comply with all applicable federal, state, and local regulations and requirements.

B. Invoice MRGSQT quarterly for costs incurred in the performance of services, not to exceed $79,475.00 in the aggregate.

C. Provide MRGSQT with detailed invoices, for review and approval as set forth in paragraph 1, above.

D. Obtain written approval from MRGSQT prior to modifying or authorizing changes to the scope of work, as set forth in Exhibit A.

E. Furnish MRGSQT with a completed report on all educational programs and projects.

3. CIVIL RIGHTS LAWS AND REGULATIONS COMPLIANCE:

The parties shall comply with all federal, state, and local laws and ordinances applicable to the work called for herein. The Parties further agree to operate under and be controlled by the Title VI and Title VII of the Civil Rights Act of 1964, the Age Discrimination Employment Act, the Americans with Disabilities Act of 1990, the Environmental Justice Act of 1994, the Civil Rights Restoration Act of 1987, the New Mexico Human Rights Ace, and Executive Order No. 11246 entitled "Equal Employment Opportunity," as amended by Executive order 11375 and as supplemented by the Department of Labor Regulations (41 CFR 60). Accordingly, 49 CFR 21 is applicable to this MOU and incorporated herein by reference.

4. EQUAL OPPORTUNITY COMPLIANCE:

Ciudad SWCD agrees to abide by all Federal and State Laws and rules and regulations, and executive orders of the Governor of the State of New Mexico, pertaining to equal employment opportunity. In accordance with all such laws and rules and regulations, and executive orders of the Governor of the State of New Mexico, Ciudad SWCD agrees to assure that no person in the United States shall, on the grounds of race, color, religion, national origin, sex, sexual preference, age or handicap, be excluded from employment with or participation in, be denied the benefits of, or be otherwise subjected to discrimination under, any program or activity performed under this MOU. If Ciudad SWCD is found to be not in compliance with these requirements during the life of this MOU, Ciudad SWCD agrees to take appropriate steps to correct these deficiencies.

5. ACCOUNTABILITY OF RECEIPTS AND DISBURSEMENTS:

There shall be strict accountability for all receipts and disbursements relating hereto. The Parties shall maintain all records and documents relative to this MOU for a minimum of ten (10) years after completion of the scope of work. Ciudad SWCD shall furnish the MRGSQT, upon demand, any and all such records relevant to this MOU and allow them the right to audit all records, which support the terms of this MOU.

6. THIRD PARTY BENEFICIARY CLAUSE:

This MOU is not intended by any of the provisions of any part of the MOU to create in the public, or any member thereof, a third party beneficiary or to authorize anyone not a party to the MOU to maintain a suit for wrongful death, bodily and/or personal injury to person, damage to property, and/or any other claim(s) whatsoever pursuant to the provisions of this MOU.

7. TORT CLAIMS ACT:

Neither party shall be responsible for liability incurred as a result of the other party's acts or omissions in connection with this Agreement. Any liability incurred in connection with this Agreement is subject to the immunities and limitations of the New Mexico Tort Claims Act, Sections 41-4-1, et. seq., NMSA 1978, as amended. This paragraph is intended only to define the liabilities between the parties hereto and it is not intended to modify, in any way, the parties' liabilities as governed by common law and the New Mexico Tort Claims Act. Ciudad SWCD, and their "public employees" and the MRGSQT, and their "public employees" as defined in the New Mexico Tort Claims Act, do not waive any defense and/or do not waive any limitation of liability pursuant to law. No provision in this MOU modifies and/or waives any provision of the New Mexico Tort Claims Act.

8. TERM:

Unless sooner terminated, this MOU shall be effective as of the date executed by both parties and shall expire June 30, 2021. This MOU may be renewed annually by agreement of the Parties.

9. TERMINATION:

This MOU may be terminated by either of the parties hereto upon written notice delivered to the other party at least thirty (30) days prior to the intended date of termination. By such termination, neither party may nullify obligations already incurred for performance or failure to perform prior to the date of termination.

10. ASSIGNMENT:

Neither party shall assign nor transfer any interest in this MOU without the prior written approval of the other party.

11. NOTICES:

Any notice required or permitted to be given hereunder shall be sufficient if mailed to the address shown below or faxed to the number shown below, or to such other address or fax number to which such party has given written notice to the other party.

For notice to Ciudad SWCD:
Ciudad SWCD
Attn: Ciudad SWCD Chairman
One Sun Avenue, Suite 160
Albuquerque, NM 87109
(505) 510-3478

For notice to MRGSQT:
MRGSQT
Attn: Patrick Chavez, PE
2600 Prospect Ave NE
Albuquerque, NM 87107
Fax: (505) 884-0214

12. SEVERABILITY:

In the event that any portion of this Agreement is determined to be void, unconstitutional or otherwise unenforceable, the remainder of this Agreement shall remain in full force and effect.

13. MERGER; AMENDMENT:

This MOU represents the entire agreement between the parties with respect to the matters addressed herein, and all prior agreements, covenants, and understandings between the parties concerning the same have been merged into this written MOU. This MOU shall not be altered, modified, changed, or amended except by a written instrument executed by the parties.

IN WITNESS WHEREOF, both Ciudad SWCD and MRGSQT have caused this Memorandum of Understanding to be duly executed.

CIUDAD Soil and Water Conservation District	**MID RIO GRANDE STORMWATER QUALITY TEAM**
By: Steve Glass, Chairman	By: Kali Bronson, Chair
Date:	Date:

Middle Rio Grande Stormwater MS4 Technical Advisory Group

MEMORANDUM OF AGREEMENT

A COOPERATIVE AGREEMENT, CREATING THE MIDDLE RIO GRANDE MS4 TECHNICAL ADVISORY GROUP, IN SUPPORT OF COMPLIANCE EFFORTS FOR A STORMWATER DISCHARGE PERMITTING SYSTEM FOR THE MIDDLE RIO GRANDE VALLEY IN ACCORDANCE WITH THE FEDERAL CLEAN WATER ACT.

WHEREAS, the United States Environmental Protection Agency (EPA), Region 6 regulates the discharge of stormwater from municipal separate storm sewer systems (MS4s) in New Mexico through the issuance of an MS4 permit for the Middle Rio Grande valley urbanized area under the authority of the National Pollutant Discharge Elimination System (NPDES) regulations (40CFR122); and

WHEREAS, the Middle Rio Grande area is comprised of many diverse local, state, federal and tribal entities, each with separate and distinct authority and responsibilities; and

WHEREAS, the Middle Rio Grande area entities potentially eligible for authorization under the proposed NPDES General Permit No. NMR04A000 (hereinafter "MS4 Permit"), and therefore are eligible to enter into this Memorandum of Agreement (hereinafter "Agreement") in furtherance of the requirements of the MS4 Permit, are the City of Albuquerque, Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA), University of New Mexico, New Mexico Department of Transportation District 3, Bernalillo County, Sandoval County, Village of Corrales, City of Rio Rancho, Los Ranchos de Albuquerque, Kirtland Air Force Base, Town of Bernalillo, State Fairgrounds/Expo New Mexico, the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA), the Eastern Sandoval County Arroyo Flood Control Authority (ESCAFCA), Sandia National Laboratories/Department of Energy, Pueblo of Sandia, Pueblo of Isleta, and Pueblo of Santa Ana (collectively "Stormwater Management Entities"); and

WHEREAS, the proposed MS4 Permit encourages cooperative efforts among separate local, state, federal and Tribal governments to reduce the amount of pollutants discharged with stormwater from the Middle Rio Grande urbanized area MS4s; and

WHEREAS, continued cooperation among the Stormwater Management Entities in the MS4 Permit offers an enhanced opportunity for each entity to remain aware of the requirements in the MS4 Permit and facilitate compliance with conditions of the permit;

NOW, THEREFORE, BE IT AGREED THAT:

1. The signatories to this Agreement (hereinafter collectively referred to as "Parties" and individually referred to as "Party") support and encourage a cooperative commitment to assist one another with technical issues regarding compliance with the MS4 Permit and agree to form the Middle Rio Grande MS4 Technical Advisory Group (MS4TAG).

2. The purpose of the MS4TAG will be to exchange technical information regarding compliance with the MS4 Permit, exchange ideas among Parties regarding compliance efforts, and exchange information regarding illicit discharges detected within each Party's jurisdiction. The MS4TAG shall have no binding financial authority and shall be strictly advisory in nature.

3. Nothing in this Agreement shall be construed as obligating a Party to this agreement to expend funds for any purpose, and no Party shall be required to contribute any funds in order to participate in this Agreement. In the event the Parties determine that any joint expenditure of funds among multiple Parties becomes necessary in order to comply with the requirements of the MS4 Permit, a separate agreement shall be entered into between the affected Parties regarding any and all such expenditures at that time.

4. The term of this Agreement shall run from the date the MS4 Permit is issued by the EPA until the date the MS4 Permit is terminated or expires, whichever occurs first. This Agreement may be terminated in its entirety at any time upon the mutual agreement of all of the then-existing Parties to this Agreement. In the event any Party wishes to withdraw from this Agreement without terminating the other Parties' interests in this Agreement, withdrawal shall become effective upon ninety (90) days prior written notice to the other Parties. Withdrawal shall fully and completely terminate that Party's interest in and obligations under this Agreement. Following any Party's withdrawal, this Agreement shall continue in full force and effect as to all remaining Parties to the extent possible.

5. This Agreement does not address the "Public Education and Outreach" or "Cooperative Sampling" sections of the MS4 Permit. Any MS4TAG efforts regarding either of these sections of the MS4 Permit under this Agreement shall be strictly in furtherance of the spirit of cooperation intended among the Parties. Each Party acknowledges its obligations under the "Public Education and Outreach" and "Cooperative Sampling" sections of the MS4 Permit are separate and apart from its activities under this Agreement, and a separate agreement will be required for any collaboration among the Parties with respect to those permit requirements.

6. The Parties will appoint two (2) Co-Coordinators from among the Parties, one of which must be from a Party located within the Bernalillo County geographical area and one of which must be from a Party located within the Sandoval County geographical area. Appointment of a Co-Coordinator shall be by majority vote of the voting Parties, with only those Parties located in the county of Bernalillo voting on the Co-Coordinator from that area, and only those Parties located in the county of Sandoval voting on the Co-Coordinator from that area. Co-Coordinators must be appointed annually in each subsequent permit year, or earlier if the position becomes vacant for any reason. For the New Mexico Department of Transportation District 3, which operates stormwater management facilities in both counties, for the purposes of this section, they shall select one county affiliation in year one of the agreement and alternate affiliations is subsequent years of this Agreement. The Co-Coordinators will be expected to coordinate the Parties' efforts under this Agreement, including facilitating meetings of the MS4TAG at least monthly for the first year of the MS4 Permit. In years two through five of the permit, the frequency of meetings may be reduced to quarterly with additional meetings called as necessary to discuss issues regarding MS4 Permit compliance.

7. Each Party shall be entitled to one (1) vote on any action items.

8. This Agreement creates no obligations on behalf of any Party to any other Party to this Agreement, including for any requirements imposed or determinations made by EPA. The Parties acknowledge and agree that each shall at all times remain individually liable for full compliance with the requirements of the MS4 Permit, including EPA's determination regarding the implementation schedule.

9. This Agreement may be modified in writing at any time upon the mutual agreement of the Parties.

10. Parties can be added at any time during the life of this Agreement. A potential future Party's submittal of a signature page to the Co-Coordinators and approval by the Co-Coordinators shall add the Party to the Agreement.

Approved as to Form:

Bernard P. Metzgar
SSCAFCA Attorney

Date: 10/04/13

Southern Sandoval County Arroyo
Flood Control Authority

Date: 10/18/13

Donald Rudy, Chairman

City of Rio Rancho

Approved as to Form:

City Attorney

Date: 10/4/13

Recommended By:

Dolores Wood, Director

Date: 11.4.13

Approved By:

Keith Riesberg, City Manager

Date: 11/1/13

Approved as to Form:

George Perez
Town of Bernalillo Attorney

Date: 10/15/2013

Mayor Jack Torres, Town of Bernalillo

Date: 10/14/13

Attest: _____ Date: 10/14/13
Ida Fierro, Town Clerk

VILLAGE OF CORRALES

By: _____ 10·08·13
Philip Gasteyer, Mayor Date

Attest:

_____ 10-08-2013
Juan Reyes, Village Clerk Date

IN WITNESS WHEREOF, the undersigned have caused this Agreement to be executed.

Albuquerque Metropolitan Arroyo Flood Control Authority

Date: 10/24/2013

Tim Eichenberg
Chair of the Board of Directors

Attest:

Bruce Thomson
Secretary/Treasurer

Date: 10/24/13

VILLAGE OF LOS RANCHOS DE ALBUQUERQUE

Date: November 14, 2013

LARRY P. ABRAHAM
MAYOR

(SEAL)

STEHANIE DOMINGUEZ
VILLAGE CLERK

MIDDLE RIO GRANDE STORMWATER
MS4 TECHNICAL ADVISORY GROUP
FINAL

10-07-13

Accepted on behalf of:

U.S. DEPARTMENT OF ENERGY
NATIONAL NUCLEAR SECURITY ADMINISTRATION
SANDIA FIELD OFFICE

By: _____ 14 NOV 2013
Geoffrey L. Beausoleil — Date
Manager

MIDDLE RIO GRANDE STORMWATER
MS4 TECHNICAL ADVISORY GROUP
FINAL

Approved as to Form:

Bernard P. Metzgar
ESCAFCA Attorney

Date: 11/14/13

Eastern Sandoval County Arroyo Flood Control Authority

Date: NOV. 19, 2013

Salvador Reyes, Chairman

UNIVERSITY OF NEW MEXICO

Approved by:

David W. Harris Date: 12/12/13

David Harris, Executive Vice President

Recommended by:

Carla P. Domenici Date: 12-10-13

Carla P. Domenici, Director
Safety and Risk Services Department

New Mexico Department of Transportation

Approved By:

Tim Parker

Date: 12/12/13

Timothy L. Parker, M.S., P.E.
NMDOT District Three Engineer

Approved As To Form Only:

Date: 12/18/2013

Ken Swain, Assistant General Counsel
Office of the General Counsel

BC CCN 2014-0069

BERNALILLO COUNTY

Motion to: Approve a Memorandum of Agreement (MOA) joining the County with other local entities participating in the Middle Rio Grande MS4 Technical Advisory Group (MS4TAG).

Approved this 28th day of January, 2014

BOARD OF COUNTY COMMISSIONERS

Debbie O'Malley, Chair

Art De La Cruz, Vice Chair

Maggie Hart Stebbins, Member

Lonnie C. Talbert, Member

Wayne A. Johnson, Member

APPROVED AS TO FORM:

County Attorney

Date: 1/28/14

ATTEST:

Maggie Toulouse Oliver, County Clerk

Date: 1/28/14

BERNALILLO COUNTY COUNTY CLERK SEAL STATE OF NEW MEXICO

Approved as to Form:

Patrick F.Trujillo
Sandoval County Attorney

Date: 1/27/2014

Sandoval County

Date: 2/6/2014

Phillip Rios, County Manager

MIDDLE RIO GRANDE STORMWATER
MS4 TECHNICAL ADVISORY GROUP
FINAL

10-07-13

Approved as to Form:

David Tourek
City Attorney

Date: 2/24/14

Recommended By:

Michael J. Riordan, P.E.
Director, Department of Municipal Development

Date: 2/26/14

Approved By:

Robert J. Perry
Chief Administrative Officer

Date: 3/4/14

Middle Rio Grande Stormwater MS4 Compliance Monitoring Cooperative

INTERGOVERNMENTAL AGREEMENT

AN INTERGOVERNMENTAL AGREEMENT, CREATING THE MIDDLE RIO GRANDE MS4 COMPLIANCE MONITORING COOPERATIVE, IN SUPPORT OF COMPLIANCE EFFORTS FOR A STORMWATER DISCHARGE PERMITTING SYSTEM FOR THE MIDDLE RIO GRANDE VALLEY IN ACCORDANCE WITH THE FEDERAL CLEAN WATER ACT.

RECITALS

WHEREAS, the United States Environmental Protection Agency (EPA), Region 6 regulates the discharge of stormwater from municipal separate storm sewer systems (MS4s) in central New Mexico through the issuance of an MS4 permit for the Middle Rio Grande valley urbanized area, under the authority of the National Pollutant Discharge Elimination System (NPDES) regulations (40CFR122); and

WHEREAS, the Middle Rio Grande valley urbanized area is comprised of many diverse local, state, federal and tribal entities, each with separate and distinct authority and responsibilities; and

WHEREAS, the Middle Rio Grande valley urbanized area entities that are eligible for authorization under NPDES General Permit No. NMR04A000 (hereinafter "MS4 Permit"), and therefore eligible to enter into this Intergovernmental Agreement (hereinafter "Agreement") in furtherance of the requirements of the MS4 Permit, are the City of Albuquerque, Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA), University of New Mexico, New Mexico Department of Transportation District 3, Bernalillo County, Sandoval County, Village of Corrales, City of Rio Rancho, Village of Los Ranchos de Albuquerque, Kirtland Air Force Base, Town of Bernalillo, State Fairgrounds/Expo New Mexico, Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA), Eastern Sandoval County Arroyo Flood Control Authority (ESCAFCA), Sandia National Laboratories/Department of Energy, Pueblo of Sandia, Pueblo of Isleta, and Pueblo of Santa Ana (collectively "Co-permittees"); and

WHEREAS, the proposed MS4 Permit requires each Co-permittee to obtain and report stormwater compliance monitoring results in their MS4 Annual Report; and

WHEREAS, the proposed MS4 Permit encourages cooperative efforts among the Co-permittees, including compliance monitoring activities, to reduce the amount of pollutants discharged with stormwater into the Rio Grande; and

WHEREAS, cooperation among the Co-permittees in the MS4 Permit through the Middle Rio Grande Compliance Monitoring Cooperative ("CMC"), with regard to monitoring requirements, offers the opportunity to reduce each individual Co-permittee's monitoring costs by cooperatively developing, funding, and executing a common monitoring plan without reducing the effectiveness of the monitoring plan.

a Members cash contribution, provided however, that participation in the CMC shall not be considered in-kind contributions. The value of in-kind contributions will be determined by the membership of the CMC by equating the value of the service to the cost that would be paid by the membership of the CMC to have the in-kind service performed by a third party (non-CMC member) contractor. The Contribution Schedule is located in Attachment 1 to this Agreement. This Contribution Schedule may be modified by the CMC annually without requiring modification to this agreement, provided however, that it shall be adopted by unanimous vote of the Members. Any funds remaining at the end of the Agreement Year will be carried into the next Calendar Year of this agreement. In such event, the CMC may either elect to retain the excess funds from the prior Calendar Year as a contingency fund, or may lower the annual contribution schedules for that year for all Members in equal proportion, based on the total amount carried forward. In the event a Member does not have the resources to provide full payment for any funds required by the Contribution Schedule, the remaining Members may agree, by unanimous vote, amend the Contribution Schedule if it is in the best interest of the CMC. Each Member's obligations under this Agreement are contingent upon sufficient appropriations being made therefor by such Member's governing body sufficient to fulfill such Member's said obligations. If such appropriations are insufficient to such Member's obligations hereunder, such Member's shall promptly notify the other Members, and this Agreement shall terminate forthwith with respect to such Member.

7. **FISCAL AGENT**. The Members shall select one (1) Co-permittee to act as Fiscal Agent for the CMC for the purposes of this Agreement. The Fiscal Agent shall act as the custodian of the CMC's funds, securities, and property. All funds will be held in a separate bank account for the purposes of this Agreement. All CMC funds shall be deposited promptly by the Fiscal Agent to the credit of the CMC. The CMC shall adhere to the Fiscal Agent's accounting and procurement procedures, provided such procedures comply with law. The Fiscal Agent shall make available to any interested Member, all records, receipts, and other documentation with respect to all matters concerning this agreement and shall have this account included in its annual audit. The Fiscal Agent shall maintain funds in accordance with all applicable state and Federal statutes. The Fiscal Agent shall be authorized on the CMC's behalf to sign checks, drafts, or other instruments for payment of money, acceptances, notes, or other evidences of indebtedness, to enter into contracts, or to execute and deliver other documents and instruments. This authority to enter into any contract or negotiated agreement shall be subject to approval by the CMC and subject to any limitations as set forth in this Agreement. Subject to the provisions of this Agreement, no loans shall be contracted on behalf of the CMC and no evidence of indebtedness shall be issued in its name unless authorized by a unanimous vote of the CMC Members. In consideration of the in-kind contributions anticipated from the Fiscal Agent, the total financial contribution requirements of the Fiscal Agent's Member agency, under any applicable agreement, shall be credited by the sum of one thousand dollars ($1,000.00) for the term of the permit in which that Member serves as the Fiscal Agent.

8. **PAYMENTS.** The Fiscal Agent will invoice each Member for their respective participation, minus the values of any CMC approved in-kind contributions at the start of each member entity's Fiscal Year. Each Member will pay such invoices to the Fiscal Agent within

standing of the CMC, contracts may be used, with concurrence from all Members of the CMC, that have been issued by Members to perform elements of the monitoring program. If a contractor is used that has been procured by a Member in good standing of the CMC instead of the Fiscal Agent, then, with concurrence of the other Members of the CMC, an entity that is not the Fiscal Agent for the CMC may contract to have the services performed and upon successful completion of the services, submit an invoice, with no mark-up, to the Fiscal Agent for reimbursement. Reimbursement shall only be authorized for reasonable and necessary costs. All contractor's utilized for the purposes identified in this Agreement shall be procured in accordance with the State Procurement Code. Contractors will be agents of the Member issuing the contract. Other Members of the CMC shall not be bound by the terms of the contract.

13. **EVALUATION.** The Members agree that the Stormwater Monitoring contract is an ongoing program. The effectiveness of the Stormwater Monitoring contract, with regard to permit compliance, will be evaluated by the CMC prior to annual renewal(s) or request for proposals.

14. **LIMITATION ON SAMPLING ACTIVITIES.** The contractor's scope of services will be limited to the CMC-developed and EPA approved sampling plan and associated reporting. If, in the event of an exceedence during routine monitoring events, additional investigation is required by the EPA to identify the source of a potential contaminant, the CMC may expand monitoring activities to the degree necessary to locate the likely entry point of the potential contaminants. Once the likely entry point is identified, further investigation into the source of the potential contaminant will become the responsibility of the specific Co-permittee(s) having jurisdiction at the location where the likely entry occurred. The CMC shall have no responsibility, fiscal or otherwise, to investigate potential sources of contamination outside of the river or its affiliated Middle Rio Grande Conservancy District-owned water conveyances.

15. **PARTICIPATION AFFECTED.** If any situation arises which adversely affects any Member's participation in this Agreement, said Member will immediately, and in writing, notify the other Members. Any circumstance that materially affects this Agreement will be promptly and equitably resolved by all Members and if necessary, an amendment to this Agreement shall be executed.

16. **COMPLIANCE WITH GOVERNING LAWS.** The obligations of each Member under this Agreement shall be performed in compliance with all applicable laws, statues, and ordinances. Nothing herein is intended to constitute any agreement for the Members to perform any activity in violation of the Constitution or Laws of the State of New Mexico or the Ordinances of any Co-permittee that is a Member of this Agreement.

17. **SEVERABILITY.** If any clause or provision of this Agreement is illegal, invalid or unenforceable, under present or future laws effective during the term of this Agreement, then and in that event, it is the intention of the Members hereto that the remainder of this Agreement shall not be affected thereby.

EACH ENTITY WILL EXECUTE AGREEMENT INDIVIDUALLY. SIGNATURE PAGES WILL BE CONSOLIDATED INTO SINGLE DOCUMENT

Albuquerque Metropolitan Arroyo Flood Control Authority

Bruce M. Thomson, Chair
Board of Directors

6/23/2016
Date

Attest:

Ronald D. Brown, Secretary-Treasurer
Board of Directors

Approved as to Form:

Randy Autio
AMAFCA Attorney

Date: 6/23/16

City of Rio Rancho

Keith Riesberg
City Manager

5/27/16
Date

Approved as to Form:

Jennifer Vega-Brown
City Attorney

Date: 5/26/16

Date for of beginning of Fiscal Year: July 1

EACH ENTITY WILL EXECUTE AGREEMENT INDIVIDUALLY. SIGNATURE PAGES WILL BE CONSOLIDATED INTO SINGLE DOCUMENT

City of Albuquerque

Approved as to Form

Jessica M. Hernandez
City Attorney

6/15/16
Date

Purchasing Approval
:

Ramona Martinez
Chief Procurement Officer

6/16/16
Date

Recommended By:

Melissa Lozoya
Director, Department of Municipal Development

6/16/16
Date

Approved By

Robert J. Perry
Chief Administrative Officer

6/17/16
Date

Date for of beginning of Fiscal Year: July 1

ATTACHMENT 1

CONTRIBUTION SCHEDULE

CCN 2016-0407

County of Bernalillo:

APPROVED BY:

6-28-16
Julie M. Baca Date
Bernalillo County Manager

RECOMMENDED BY:

6/27/16
Roger A. Paul, P.E. Date
Deputy County Manager for Public Works

APPROVED AS TO FORM ONLY:

4-24-2016
for Deputy County Attorney Date

EACH ENTITY WILL EXECUTE AGREEMENT INDIVIDUALLY. SIGNATURE PAGES WILL BE CONSOLIDATED INTO SINGLE DOCUMENT

Village of Los Ranchos de Albuquerque

Kelly S. Ward 6/21/16

Kelly Ward Date
Administrator

Village of Corrales

Scott A. Kominiak, Mayor

5/26/16
Date

Jennifer A. Rise, Village Clerk

Approved as to Form:

John L. Appel
Coppler Law Firm P.C.
Village of Corrales Attorney

5/26/16
Date

Date for beginning of Fiscal Year: July 1

EACH ENTITY WILL EXECUTE AGREEMENT INDIVIDUALLY. SIGNATURE PAGES WILL BE CONSOLIDATED INTO SINGLE DOCUMENT

Town of Bernalillo

Jack Torres, Mayor
Board of Directors

5/23/2016
Date

Attest:

Ida Fierro, Town Clerk

Date for of beginning of Fiscal Year: July 1

EACH ENTITY WILL EXECUTE AGREEMENT INDIVIDUALLY. SIGNATURE PAGES WILL BE CONSOLIDATED INTO SINGLE DOCUMENT

Southern Sandoval County Arroyo Flood Control Authority

James Fahey, M.D., Chair
Board of Directors

5/20/16
Date

Approved as to Form:

Bernard Metzgar
SSCAFCA Attorney

Date: 5/20/16

Date for of beginning of Fiscal Year: July 1

EACH ENTITY WILL EXECUTE AGREEMENT INDIVIDUALLY. SIGNATURE PAGES WILL BE CONSOLIDATED INTO SINGLE DOCUMENT

Sandoval County, New Mexico
Flood Control Authority

Phillip Rios
County Manager

5/16/2016
Date

Approved as to Form:

Patrick Trujillo
Sandoval County Attorney

Date: 5/16/2016

Date for of beginning of Fiscal Year: July 1

EACH ENTITY WILL EXECUTE AGREEMENT INDIVIDUALLY. SIGNATURE PAGES WILL BE CONSOLIDATED INTO SINGLE DOCUMENT

New Mexico Department of Transportation - District 3

Approved as to Form:

Elizabeth J. Jarvis
Office of the General Counsel

6·29·2016
Date

Approved By:

Kenneth Murphy
Kenneth Murphy, NMDOT District Three Engineer

7/7/16
Date

Date for of beginning of Fiscal Year: July 1

EACH ENTITY WILL EXECUTE AGREEMENT INDIVIDUALLY. SIGNATURE PAGES WILL BE CONSOLIDATED INTO SINGLE DOCUMENT

Eastern Sandoval County Arroyo Flood Control Authority

Sal Reyes, Chair
Board of Directors

Date May 25 2016

Attest:

Ida Fierro, Secretary
Board of Directors

Approved as to Form:

Bernie Metzgar
ESCAFCA Attorney

Date: _____

ATTACHMENT 1

Sampling Cooperative Cost Allocation Determination (CAD) Tool

28-Apr-16

Number	Participant			$ 132,000.00	ENTITY PAYMENT	FISCAL AGENT CREDIT ($1k)
1	City of Albuquerque		1.38	$ 45,574.50	$45,600.00	
2	AMAFCA		0.43	$ 14,319.39	$14,400.00	$ (1,000.00)
3	UNM		0.41	$ 13,553.53	$13,600.00	
4	NMDOT		0.12	$ 3,865.56	$3,900.00	
5	Bernalillo County		0.59	$ 19,549.95	$19,600.00	
6	Sandoval County		0.46	$ 15,094.20	$15,100.00	
7	Village of Corrales		0.04	$ 1,393.20	$1,400.00	
8	City of Rio Rancho		0.42	$ 13,997.46	$14,000.00	
9	Los Ranchos de Albuquerque		0.02	$ 705.79	$1,000.00	
10	Town of Bernalillo		0.03	$ 903.81	$1,000.00	
11	ESCAFCA		0.01	$ 338.88	$500.00	
12	SSCAFCA		0.08	$ 2,703.72	$2,900.00	
	Ratio Check (Sum = Weighting Factor)		4.00		$132,000.00	

THE UNIVERSITY of NEW MEXICO

Department of Safety and Risk Services (SRS)
MSC07 4100
1 University of New Mexico
Albuquerque, NM 87131-0001
Phone: (505)277-2753 Fax: (505)277-9006
srs.unm.edu

August 14, 2017

Mr. Jerry Lovato, Executive Engineer
Albuquerque Metropolitan Arroyo Flood Control Authority
2600 Prospect Ave NE
Albuquerque, NM 87107

RE: Memorandum of Understanding for Delegation of Authority for Data Entry into netDMR System

Dear Mr. Lovato,

As you are aware, twelve of the permittees under NPDES Permit No. NMR04A000 (Permit) have entered into a cooperative agreement for the performance of permit-mandated water quality monitoring. Currently, results from the samples taken during monitoring events are shared among the twelve members of the Compliance Monitoring Cooperative (CMC) and must be entered by each entity into the netDMR database individually, creating twelve identical (barring typos or other data entry error) records. This is clearly inefficient, at best.

Following discussions between the CMC and the EPA, the EPA has approved a methodology whereby one member of the CMC will enter data in netDMR on behalf of any other CMC-member entity. Each CMC-member entity that wishes to participate will delegate authority to the data entry CMC-member entity or their designed contractor, for this purpose. We appreciate Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) volunteering to be the data entry CMC entity on behalf of the CMC.

Therefore, the University of New Mexico (UNM), permit number NMR04A013, hereby delegates authority for data entry and approval of sampling results into netDMR to AMAFCA for the purposes of compliance with Permit requirements. Please provide us notification of the completion of data entry via email for our records.

In the event that AMAFCA becomes unable to perform this function on behalf of UNM, please notify me a minimum of 60 days prior to the deadline for date entry so that we may arrange to perform this function internally.

If you have any questions or need any clarification regarding this letter, please feel free to contact Chemanji Shu-Nyamboli cshu@unm.edu or at 505-277-2766. Thank you again for your willingness to perform this operation on behalf of the membership of the CMC.

Requested
David W. Harris
Executive Vice President, Administration, COO, CFO, UNM

Acknowledged and Accepted
Jerry Lovato, P.E.
Executive Director, AMAFCA

New Mexico DEPARTMENT OF TRANSPORTATION

District 3 – New Mexico Department of Transportation
7500 Pan American Blvd.
Albuquerque, NM 87109

August 15, 2017

Mr. Jerry Lovato, Executive Engineer
Albuquerque Metropolitan Arroyo Flood Control Authority
2600 Prospect Ave NE
Albuquerque, NM 87107

RE: Memorandum of Understanding for Delegation of Authority for Data Entry into netDMR System

Dear : Mr. Lovato,

As you are aware, twelve of the permittees under NPDES Permit No. NMR04A000 (Permit) have entered into a cooperative agreement for the performance of permit-mandated water quality monitoring. Currently, results from the samples taken during monitoring events are shared among the twelve members of the Compliance Monitoring Cooperative (CMC) and must be entered by each entity into the netDMR database individually, creating twelve identical (barring typos or other data entry error) records. This is clearly inefficient, at best.

Following discussions between the CMC and the EPA, the EPA has approved a methodology whereby one member of the CMC will enter data in netDMR on behalf of any other CMC-member entity. Each CMC-member entity that wishes to participate will delegate authority to the data entry CMC-member entity or their designated contractor, for this purpose. We appreciate Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) volunteering to be the data entry CMC entity on behalf of the CMC.

Therefore, the New Mexico Department of Transportation District 3, permit number NMR04A010, hereby delegates authority for data entry and approval of sampling results into netDMR to AMAFCA for the purposes of compliance with Permit requirements. Please provide us notification of the completion of data entry via email for our records.

In the event that AMAFCA becomes unable to perform this function on behalf of NMDOT District 3, please notify me a minimum of 60 days prior to the deadline for date entry so that we may arrange to perform this function internally.

Susana Martinez
Governor

Tom Church
Cabinet Secretary

Commissioners

Ronald Schmeits
Chairman
District 4

Dr. Kenneth White
Secretary
District 1

David Sepich
Commissioner
District 2

Keith Mortensen
Commissioner
District 3

Butch Mathews
Commissioner
District 5

Jackson Gibson
Commissioner
District 6

If you have any questions or need any clarification regarding this letter, please feel free to contact me at 505-798-6630, or Tim Trujillo at 505-798-6690 or TimothyR.Trujillo@state.nm.us. Thank you again for your willingness to perform this operation on behalf of the CMC membership.

Requested
Kenneth Murphy, P.E.
NMDOT District Three Engineer

Acknowledged and Accepted
Jerry Lovato, P.E.
Executive Director, AMAFCA

County of Bernalillo
State of New Mexico
Technical Services Department
2400 Broadway SE, Building N
Albuquerque, New Mexico 87102
Office: (505) 848-1500 Fax: (505) 848-1510
www.bernco.gov

August 9, 2017

Mr. Jerry Lovato, Executive Engineer
Albuquerque Metropolitan Arroyo Flood Control Authority
2600 Prospect Ave NE
Albuquerque, NM 87107

RE: Memorandum of Understanding for Delegation of Authority for Data Entry into netDMR System

Dear Mr. Lovato,

As you are aware, twelve of the permittees under NPDES Permit No. NMR04A000 (Permit) have entered into a cooperative agreement for the performance of permit-mandated water quality monitoring. Currently, results from the samples taken during monitoring events are shared among the twelve members of the Compliance Monitoring Cooperative (CMC) and must be entered by each entity into the netDMR database individually, creating twelve identical (barring typos or other data entry error) records. This is clearly inefficient, at best.

Following discussions between the CMC and the EPA, the EPA has approved a methodology whereby one member of the CMC will enter data in netDMR on behalf of any other CMC-member entity. Each CMC-member entity that wishes to participate will delegate authority to the data entry CMC-member entity or their designed contractor, for this purpose. We appreciate Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) volunteering to be the data entry CMC entity on behalf of the CMC.

Therefore, Bernalillo County hereby delegates authority for data entry and approval of sampling results into netDMR to AMAFCA for the purposes of compliance with Permit requirements. Please provide us notification of the completion of data entry via email for our records.

In the event that AMAFCA becomes unable to perform this function on behalf of Bernalillo County, please notify me a minimum of 60 days prior to the deadline for date entry so that we may arrange to perform this function internally.

If you have any questions or need any clarification regarding this letter, please feel free to contact me at kbronson@bernco.gov or at 505-848-1544. Thank you again for your willingness to perform this operation on behalf of the membership of the CMC.

Kali Bronson
Stormater Program Compliance Manager, Bernalillo County

Jerry Lovato, P.E.
Executive Director, AMAFCA

COMMISSIONERS

Debbie O'Malley, Chair, District 1 *Steven Michael Quezada, Vice Chair, District 2*
Maggie Hart Stebbins, Member, District 3 *Lonnie C. Talbert, Member, District 4* *Wayne A. Johnson, Member, District 5*

ELECTED OFFICIALS

Tanya R. Giddings, Assessor *Linda Stover, Clerk* *Willow Misty Parks, Probate Judge* *Manuel Gonzales III, Sheriff* *Nancy M. Bearce, Treasurer*

COUNTY MANAGER

Julie Morgas Baca

August 3, 2017

Mr. Jerry Lovato, Executive Engineer
Albuquerque Metropolitan Arroyo Flood Control Authority
2600 Prospect Ave NE
Albuquerque, NM 87107

RE: Memorandum of Understanding for Delegation of Authority for Data Entry into netDMR System

Dear Mr. Lovato,

As you are aware, twelve of the permittees under NPDES Permit No. NMR04A000 (Permit) have entered into a cooperative agreement for the performance of permit-mandated water quality monitoring. Currently, results from the samples taken during monitoring events are shared among the twelve members of the Compliance Monitoring Cooperative (CMC) and must be entered by each entity into the netDMR database individually, creating twelve identical (barring typos or other data entry error) records. This is clearly inefficient, at best.

Following discussions between the CMC and the EPA, the EPA has approved a methodology whereby one member of the CMC will enter data in netDMR on behalf of any other CMC-member entity. Each CMC-member entity that wishes to participate will delegate authority to the data entry CMC-member entity or their designed contractor, for this purpose. We appreciate Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) volunteering to be the data entry CMC entity on behalf of the CMC.

Therefore, Sandoval County, permit number NMR04A003, hereby delegates authority for data entry and approval of sampling results into netDMR to AMAFCA for the purposes of compliance with Permit requirements. Please provide us notification of the completion of data entry via email for our records.

In the event that AMAFCA becomes unable to perform this function on behalf of Sandoval County, please notify me a minimum of 60 days prior to the deadline for date entry so that we may arrange to perform this function internally.

If you have any questions or need any clarification regarding this letter, please feel free to contact Fred Marquez at fmarquez@sandovalcountynm.gov or at 505-306-4706. Thank you again for your willingness to perform this operation on behalf of the membership of the CMC.

Requested
Dianne Maes, CPM
County Manager, Sandoval County

Acknowledged and Accepted
Jerry Lovato, P.E.
Executive Director, AMAFCA

VILLAGE OF CORRALES

SCOTT KOMINIAK
MAYOR

July 3, 2017

Mr. Jerry Lovato, Executive Engineer
Albuquerque Metropolitan Arroyo Flood Control Authority
2600 Prospect Ave NE
Albuquerque, NM 87107

RE: Delegation of Authority for Data Entry into netDMR System

Dear Mr. Lovato,

As you are aware, twelve of the permittees under NPDES Permit No. NMR04A000 (Permit) have entered into a cooperative agreement for the performance of permit-mandated water quality monitoring. Currently, results from the samples taken during monitoring events are shared among the twelve members of the Compliance Monitoring Cooperative (CMC) and must be entered by each entity into the netDMR database individually, creating twelve identical (barring typos or other data entry error) records. This is clearly inefficient, at best.

Following discussions between the CMC and the EPA, the EPA has approved a methodology whereby one member of the CMC will enter data in netDMR on behalf of any other CMC-member entity. Each CMC-member entity that wishes to participate will delegate authority to the data entry CMC-member entity or their designed contractor, for this purpose. We appreciate Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) volunteering to be the data entry CMC entity on behalf of the CMC.

Therefore, the Village of Corrales hereby delegates authority for data entry and approval of sampling results into netDMR to AMAFCA for the purposes of compliance with Permit requirements. Please provide us notification of the completion of data entry via email for our records.

In the event that AMAFCA becomes unable to perform this function on behalf of Corrales, please notify me a minimum of 60 days prior to the deadline for date entry so that we may arrange to perform this function internally.

If you have any questions or need any clarification regarding this letter, please feel free to contact me at javila@corrales-nm.org or at 505-897-0502. Thank you again for your willingness to perform this operation on behalf of the membership of the CMC.

Sincerely,

John Avila,
Village Administrator, Corrales

PAT CLAUSER COUNCILOR | DAVID DORNBURG COUNCILOR | PHILIP GASTEYER COUNCILOR | ENNIO GARCIA-MIERA COUNCILOR | GEORGE WRIGHT COUNCILOR | JAMES F. FAHEY COUNCILOR

RioRancho
City of Vision

City of Rio Rancho

3200 Civic Center Circle NE
Rio Rancho, New Mexico 87144-4501
(505) 981-5002 • FAX (505) 981-7274

August 15, 2017

Mr. Jerry Lovato, Executive Engineer
Albuquerque Metropolitan Arroyo Flood Control Authority
2600 Prospect Ave NE
Albuquerque, NM 87107

RE: Memorandum of Understanding for Delegation of Authority for Data Entry into NetDMR System

Dear Mr. Lovato,

As you are aware, twelve permittees covered under the Middle Rio Grande Watershed Based Municipal Separate Storm Sewer System (MS4) General Permit (NPDES No. NMR04A000) have entered into a cooperative agreement for the performance of permit-mandated water quality monitoring. Currently, results from the samples taken during monitoring events are shared among the twelve members of the Compliance Monitoring Cooperative (CMC) and must be entered by each entity into the Network Discharge Monitoring Report (NetDMR) database individually, creating twelve identical (barring typos or other data entry error) records. This is clearly inefficient, at best.

Following discussions between the CMC and the Environmental Protection Agency (EPA), EPA has approved a methodology whereby one member of the CMC will enter data in NetDMR on behalf of any other CMC-member entity. Each CMC-member entity that wishes to participate will delegate authority to the data entry CMC-member entity or their designed contractor, for this purpose. We appreciate Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) volunteering to be the data entry CMC entity on behalf of the CMC.

Therefore, the City of Rio Rancho, Permit Tracking No. NMR04A007, hereby delegates authority for data entry and approval of sampling results into NetDMR to AMAFCA for the purposes of compliance with MS4 General Permit requirements. Please provide us notification, via email, of the completion of data entry for our records.

In the event that AMAFCA becomes unable to perform this function on behalf of the City of Rio Rancho, please notify me a minimum of 60 days prior to the deadline, or by December 1st, for data entry in order to perform this function internally.

Please contact Xavier Pettes via email at xpettes@rrnm.gov or phone at (505)891-5045 if you have questions or concerns regarding this memorandum. Thank you again for your willingness to perform this function on behalf of the membership of the CMC.

Requested
Keith Riesberg
City Manager, City of Rio Rancho

Acknowledged and Accepted
Jerry Lovato, P.E.
Executive Director, AMAFCA

Village of
Los Ranchos de Albuquerque
SETTLED C. 1661 ••• INCORPORATED 1958

MAYOR
LARRY P. ABRAHAM

ADMINISTRATOR
KELLY S. WARD

TRUSTEES
DON LOPEZ
MAYOR PRO-TEM

PABLO RAEL
MARY HOMAN
ALLEN LEWI

August 8, 2017

Mr. Jerry Lovato, Executive Engineer
Albuquerque Metropolitan Arroyo Flood Control Authority
2600 Prospect Ave NE
Albuquerque, NM 87107

RE: Memorandum of Understanding for Delegation of Authority for Data Entry into netDMR System

Dear Mr. Lovato,

As you are aware, twelve of the permittees under NPDES Permit No. NMR04A000 (Permit) have entered into a cooperative agreement for the performance of permit-mandated water quality monitoring. Currently, results from the samples taken during monitoring events are shared among the twelve members of the Compliance Monitoring Cooperative (CMC) and must be entered by each entity into the netDMR database individually, creating twelve identical (barring typos or other data entry error) records. This is clearly inefficient, at best.

Following discussions between the CMC and the EPA, the EPA has approved a methodology whereby one member of the CMC will enter data in netDMR on behalf of any other CMC-member entity. Each CMC-member entity that wishes to participate will delegate authority to the data entry CMC-member entity or their designed contractor, for this purpose. We appreciate Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) volunteering to be the data entry CMC entity on behalf of the CMC.

Therefore, the Village of Los Ranchos de Albuquerque (Los Ranchos), permit number NMR04A006, hereby delegates authority for data entry and approval of sampling results into netDMR to AMAFCA for the purposes of compliance with Permit requirements. Plese sign and return one original of this MOU and provide us notification of the completion of data entry via email for our records.

In the event that AMAFCA becomes unable to perform this function on behalf of Los Ranchos, please notify me a minimum of 60 days prior to the deadline for date entry so that we may arrange to perform this function internally.

If you have any questions or need any clarification regarding this letter, please feel free to contact me at KWard@LosRanchosNM.gov or (505) 344-6582. Thank you again for your willingness to perform this operation on behalf of the membership of the CMC.

Sincerely,

Kelly Ward
Administrator

Acknowledged and Accepted
Jerry Lovato, P.E.
Executive Director, AMAFCA

CC: Tim McDonough, Director, Planning & Zoning Department

attachment

Town of Bernalillo

"The City of Coronado"

Mayor
Jack Torres

Council
Marian A. Jaramillo
Tina Dominguez
Dale R. Prairie
Ronnie A. Sisneros

November 30, 2017

Mr. Jerry Lovato, Executive Engineer
Albuquerque Metropolitan Arroyo Flood Control Authority
2600 Prospect Ave NE
Albuquerque, NM 87107

RE: Memorandum of Understanding for Delegation of Authority for Data Entry into netDMR System

Dear Mr. Lovato,

As you are aware, twelve of the permittees under NPDES Permit No. NMR04A000 (Permit) have entered into a cooperative agreement for the performance of permit-mandated water quality monitoring. Currently, results from the samples taken during monitoring events are shared among the twelve members of the Compliance Monitoring Cooperative (CMC) and must be entered by each entity into the netDMR database individually, creating twelve identical (barring typos or other data entry error) records. This is clearly inefficient, at best.

Following discussions between the CMC and the EPA, the EPA has approved a methodology whereby one member of the CMC will enter data in netDMR on behalf of any other CMC-member entity. Each CMC-member entity that wishes to participate will delegate authority to the data entry CMC-member entity or their designed contractor, for this purpose. We appreciate Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) volunteering to be the data entry CMC entity on behalf of the CMC.

Therefore, the Town of Bernalillo, permit number NMR04A003, hereby delegates authority for data entry and approval of sampling results into netDMR to AMAFCA for the purposes of compliance with Permit requirements. Please provide us notification of the completion of data entry via email for our records.

In the event that AMAFCA becomes unable to perform this function on behalf of the Town of Bernalillo, please notify me a minimum of 60 days prior to the deadline for date entry so that we may arrange to perform this function internally.

If you have any questions or need any clarification regarding this letter, please feel free to contact me at aedmondson@townofbernalillo.org or at 505-867-3311. Thank you again for your willingness to perform this operation on behalf of the membership of the CMC.

Requested
Jack Torres,
Mayor, Town of Bernalillo

Acknowledged and Accepted
Jerry Lovato, P.E.
Executive Director, AMAFCA

P.O. Box 638 829 Camino del Pueblo Bernalillo, NM 87004 Phone (505) 771-7124 Fax (505) 867-2380

Southern Sandoval County Arroyo Flood Control Authority

1041 Commercial Drive SE • Rio Rancho, NM 87124
Ph (505) 892-RAIN (7246) • Fax (505) 892-7241

BOARD OF DIRECTORS
John Chaney
Mark Conkling
James F. Fahey Jr.
Steven M. House
Michael Obrey

EXECUTIVE ENGINEER
Charles Thomas, P.E.

August 7, 2017

Mr. Jerry Lovato, Executive Engineer
Albuquerque Metropolitan Arroyo Flood Control Authority
2600 Prospect Ave NE
Albuquerque, NM 87107

RE: Memorandum of Understanding for Delegation of Authority for Data Entry into netDMR System

Dear Mr. Lovato,

As you are aware, twelve of the permittees under NPDES Permit No. NMR04A000 (Permit) have entered into a cooperative agreement for the performance of permit-mandated water quality monitoring. Currently, results from the samples taken during monitoring events are shared among the twelve members of the Compliance Monitoring Cooperative (CMC) and must be entered by each entity into the netDMR database individually, creating twelve identical (barring typos or other data entry error) records. This is clearly inefficient, at best.

Following discussions between the CMC and the EPA, the EPA has approved a methodology whereby one member of the CMC will enter data in netDMR on behalf of any other CMC-member entity. Each CMC-member entity that wishes to participate will delegate authority to the data entry CMC-member entity or their designed contractor, for this purpose. We appreciate Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) volunteering to be the data entry CMC entity on behalf of the CMC.

Therefore, the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA), permit number NMR04A001, hereby delegates authority for data entry and approval of sampling results into netDMR to AMAFCA for the purposes of compliance with Permit requirements. Please provide us notification of the completion of data entry via email for our records.

In the event that AMAFCA becomes unable to perform this function on behalf of SSCAFCA, please notify me a minimum of 60 days prior to the deadline for date entry so that we may arrange to perform this function internally.

If you have any questions or need any clarification regarding this letter, please feel free to contact me at cthomas@sscafca.com or at 505-892-7246. Thank you again for your willingness to perform this operation on behalf of the membership of the CMC.

Requested
Charles Thomas, P.E.
Executive Engineer, SSCAFCA

Acknowledged and Accepted
Jerry Lovato, P.E.
Executive Director, AMAFCA

ESCAFCA
Eastern Sandoval County Arroyo
Flood Control Authority

P.O. Box 638
Bernalillo, NM 87004
Tel: 771-7110 ext. 7110
http://www.escafca.com/

August 10, 2017

Mr. Jerry Lovato, Executive Engineer
Albuquerque Metropolitan Arroyo Flood Control Authority
2600 Prospect Ave NE
Albuquerque, NM 87107

RE: Memorandum of Understanding for Delegation of Authority for Data Entry into netDMR System

Dear Mr. Lovato,

As you are aware, twelve of the permittees under NPDES Permit No. NMR04A000 (Permit) have entered into a cooperative agreement for the performance of permit-mandated water quality monitoring. Currently, results from the samples taken during monitoring events are shared among the twelve members of the Compliance Monitoring Cooperative (CMC) and must be entered by each entity into the netDMR database individually, creating twelve identical (barring typos or other data entry error) records. This is clearly inefficient, at best.

Following discussions between the CMC and the EPA, the EPA has approved a methodology whereby one member of the CMC will enter data in netDMR on behalf of any other CMC-member entity. Each CMC-member entity that wishes to participate will delegate authority to the data entry CMC-member entity or their designed contractor, for this purpose. We appreciate Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) volunteering to be the data entry CMC entity on behalf of the CMC.

Therefore, the Eastern Sandoval County Arroyo Flood Control Authority (ESCAFCA), permit number NMR04A015, hereby delegates authority for data entry and approval of sampling results into netDMR to AMAFCA for the purposes of compliance with Permit requirements. Please provide us notification of the completion of data entry via email for our records.

In the event that AMAFCA becomes unable to perform this function on behalf of ESCAFCA, please notify me a minimum of 60 days prior to the deadline for data entry so that we may make other arrangements.

If you have any questions or need any clarification regarding this letter, please feel free to contact me at blairylar@hotmail.com or at 505-249-1035. Thank you again for your willingness to perform this operation on behalf of the membership of the CMC.

Requested
Larry A. Blair, P.E.
Executive Engineer, ESCAFCA

Acknowledged and Accepted
Jerry Lovato, P.E.
Executive Director, AMAFCA

Board of Directors:
Sal Reyes, Chairman
Leroy Lovato
Jack Torres

Administator
Danielle Welch
dwelch@escafca.com

Executive Engineer
Larry A. Blair, P.E.
blairylar@hotmail.com

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

RECEIVED APR 25 2017

APR 10 2017

CERTIFIED MAIL – RETURN RECEIPT REQUESTED: 7014 0150 0000 2454 3244

Mr. Dave Gatterman, P.E.
Southern Sandoval County
Arroyo Flood Control Authority
1041 Commercial Dr. S.E.
Rio Rancho, NM 87124

Re: Request for Delegation of Entering Data

Mr. Gatterman:

Thank you for your email of February 8, 2017, requesting that the Middle Rio Grande member for entering monitoring events data into NetDMR on behalf of the other members. It is our understanding that Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) will be the member who will be inputing the data. EPA approves CMC's request for the delegation because it is efficient and not duplicative. While we approve the CMC's request for the delegation, EPA would like to emphasize a few items.

EPA's NPDES Permits and TMDLs Branch has pointed out that AMAFCA has certain obligations:

- If AMAFCA agrees to enter monitoring events data on the permittees' (CMC member entities) behalf, this should be memorialized in a Memorandum of Agreement (MOA) or its equivalent. AMAFCA must maintain this obligation as part of their SWMP description and it should also be incorporated into the AMAFCA's SWMP.

- The CMC's SWMPs should also indicate that AMAFCA is responsible for implementing this action.

EPA's Water Enforcement Branch would also like to highlight Part I D.3.b of the Middle Rio Grande MS4 Permit requirements regarding Shared Responsibility and cooperative Programs, and Part IV.A of the MS4 Permit regarding Standard Permit Conditions and Duty to Comply.

- **Part I D.3.b** states that Implementation of the SWMP may be achieved through participation with other permittees, public agencies, or private entities in cooperative efforts to satisfy the requirements of Part I. D in lieu of creating duplicate program elements for each individual permittee, only if:

  "(c) The permittee remains responsible for compliance with the permit obligations if the other entity fails to implement the control measure component."

- **Part IV A** states that the permittee(s) must comply with all conditions of this permit insofar as those conditions are applicable to each permittee, either individually or jointly. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action.

As stated above, please note that each permittee is responsible for meeting its own permit obligations. If you have any questions, please contact Robert Houston, Special Projects Section Chief, at (214) 665-8565.

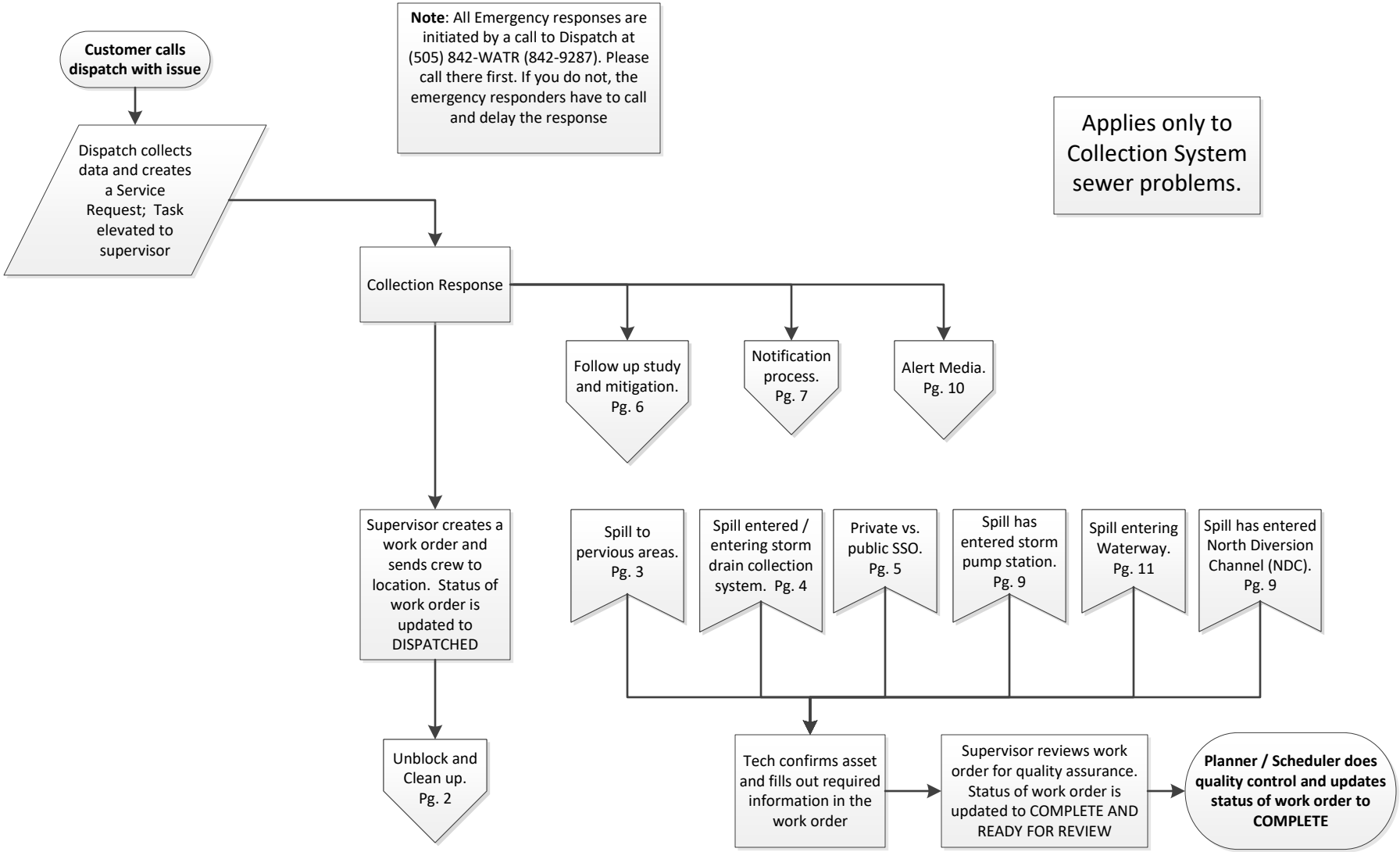
Sincerely,

Cheryl T. Seager
Division Director
Compliance Assurance and
Enforcement Division

Overflow Emergency Response Plan

02-13-2025

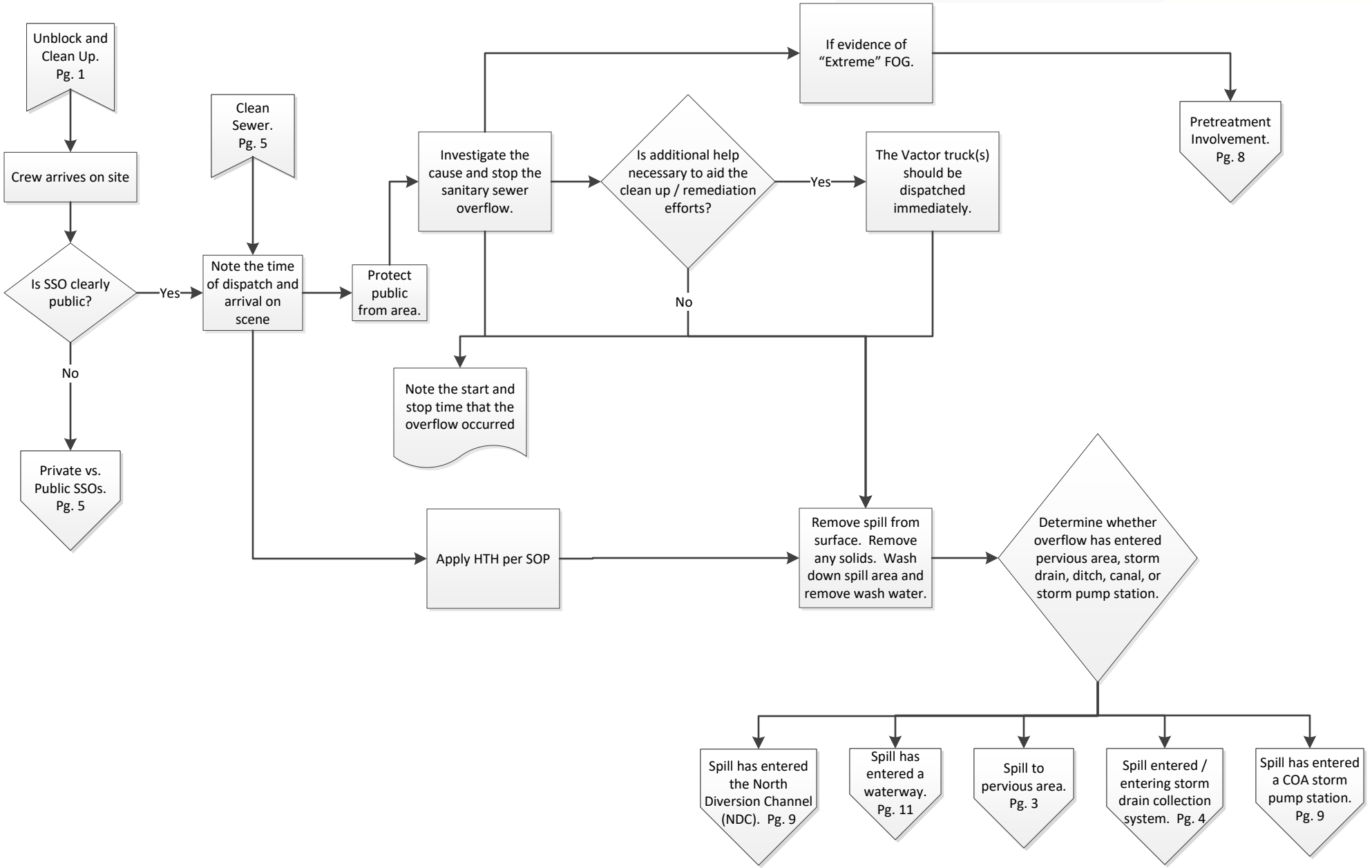
Albuquerque Bernalillo County Water Utility Authority

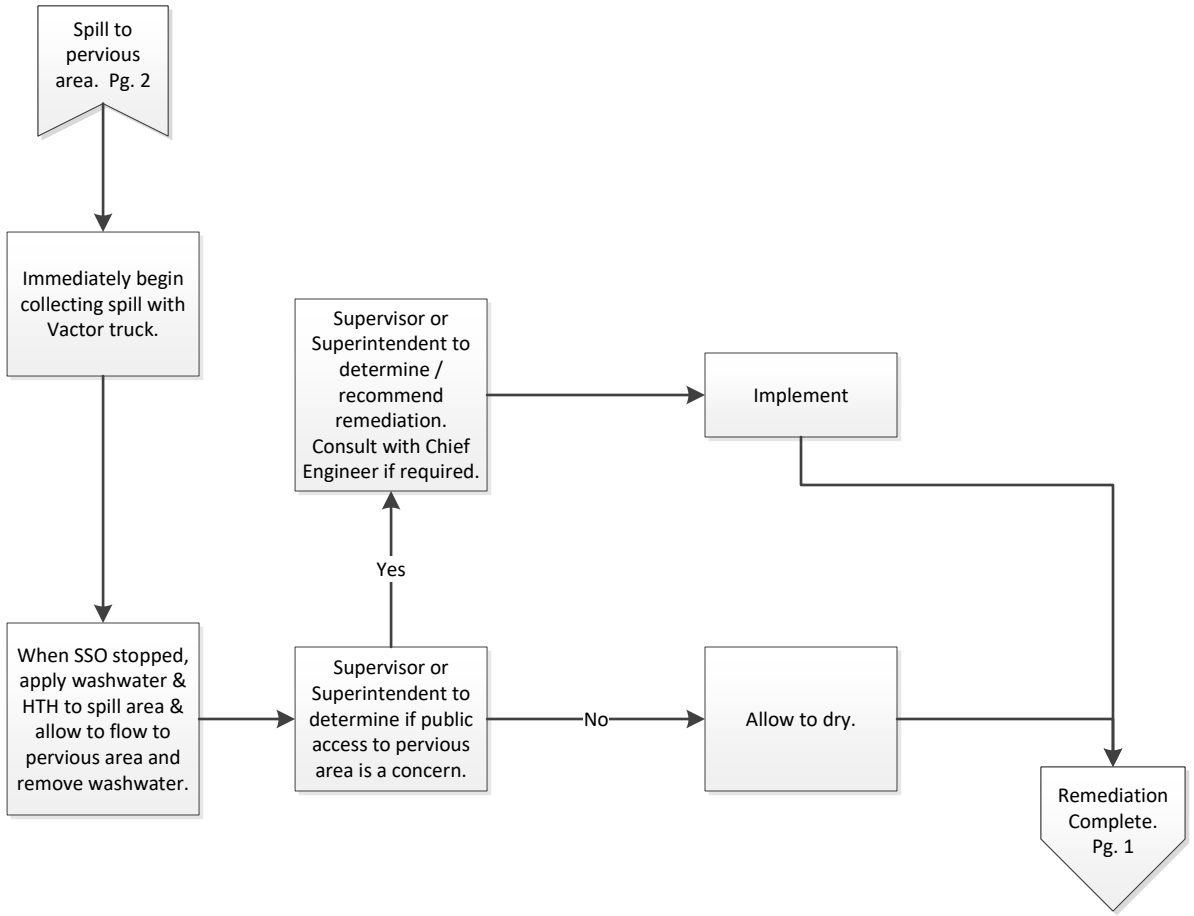


Overflow Emergency Response Plan

02-13-2025

Albuquerque Bernalillo County Water Utility Authority

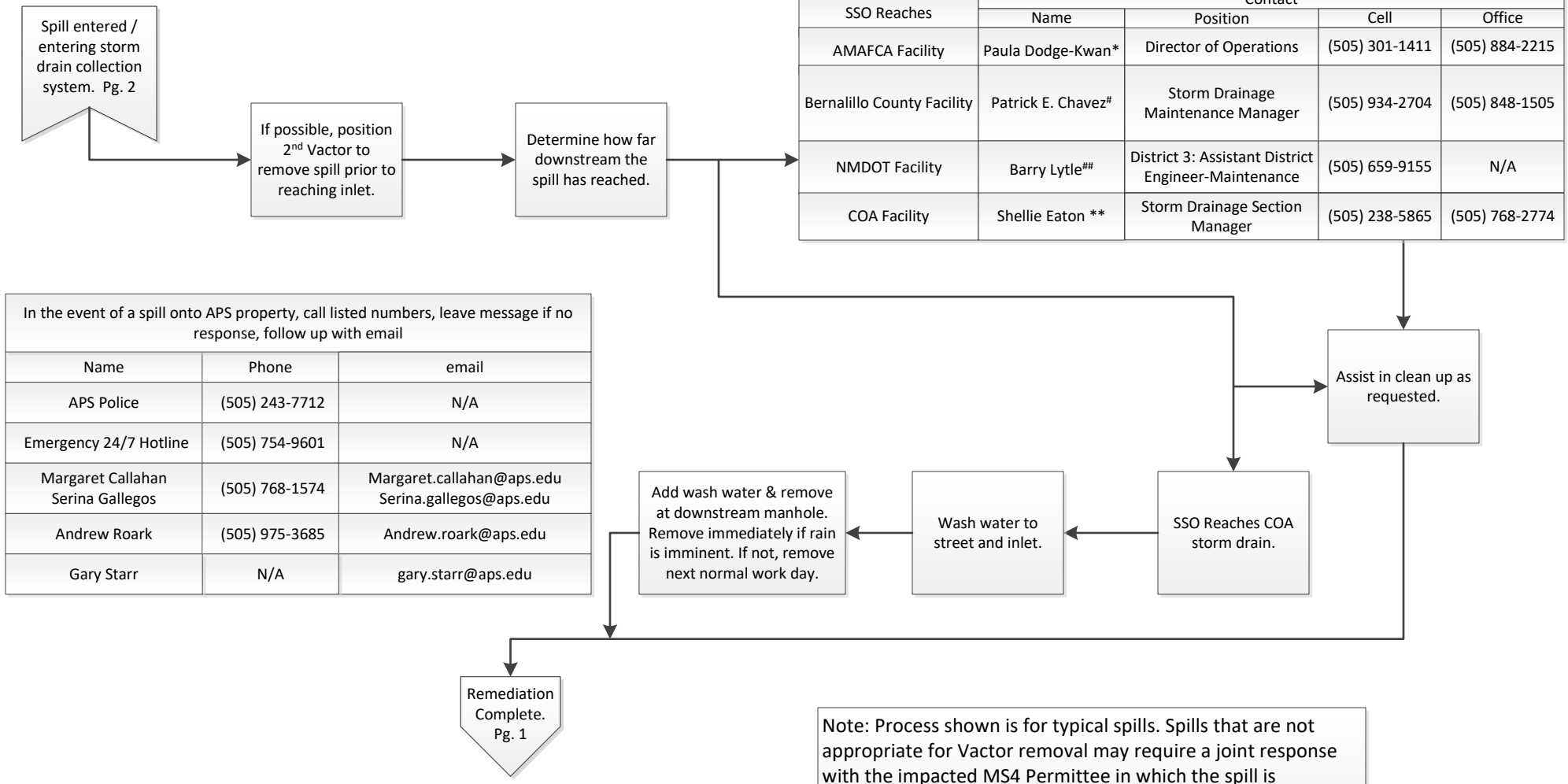



Spill to pervious area. Pg. 2
Immediately begin collecting spill with Vactor truck.
When SSO stopped, apply washwater & HTH to spill area & allow to flow to pervious area and remove washwater.
Supervisor or Superintendent to determine if public access to pervious area is a concern.
Yes
Supervisor or Superintendent to determine / recommend remediation. Consult with Chief Engineer if required.
No
Implement
Allow to dry.
Remediation Complete. Pg. 1

Overflow Emergency Response Plan

02-13-2025

Albuquerque Bernalillo County Water Utility Authority



SSO Reaches	Contact			
	Name	Position	Cell	Office
AMAFCA Facility	Paula Dodge-Kwan*	Director of Operations	(505) 301-1411	(505) 884-2215
Bernalillo County Facility	Patrick E. Chavez#	Storm Drainage Maintenance Manager	(505) 934-2704	(505) 848-1505
NMDOT Facility	Barry Lytle##	District 3: Assistant District Engineer-Maintenance	(505) 659-9155	N/A
COA Facility	Shellie Eaton **	Storm Drainage Section Manager	(505) 238-5865	(505) 768-2774

In the event of a spill onto APS property, call listed numbers, leave message if no response, follow up with email		
Name	Phone	email
APS Police	(505) 243-7712	N/A
Emergency 24/7 Hotline	(505) 754-9601	N/A
Margaret Callahan Serina Gallegos	(505) 768-1574	Margaret.callahan@aps.edu Serina.gallegos@aps.edu
Andrew Roark	(505) 975-3685	Andrew.roark@aps.edu
Gary Starr	N/A	gary.starr@aps.edu

Note: Process shown is for typical spills. Spills that are not appropriate for Vactor removal may require a joint response with the impacted MS4 Permittee in which the spill is captured, treated, and determined appropriate for release.

*If Paula Dodge-Kwan is not immediately available, call:

Patrick J. Chavez (PJ): Strmwtr. Qual. Eng, Cell: (505) 362-7342
Sal Hernandez: Superintendent, Cell: (505) 366-8209

#In addition to Patrick E. Chavez, call:

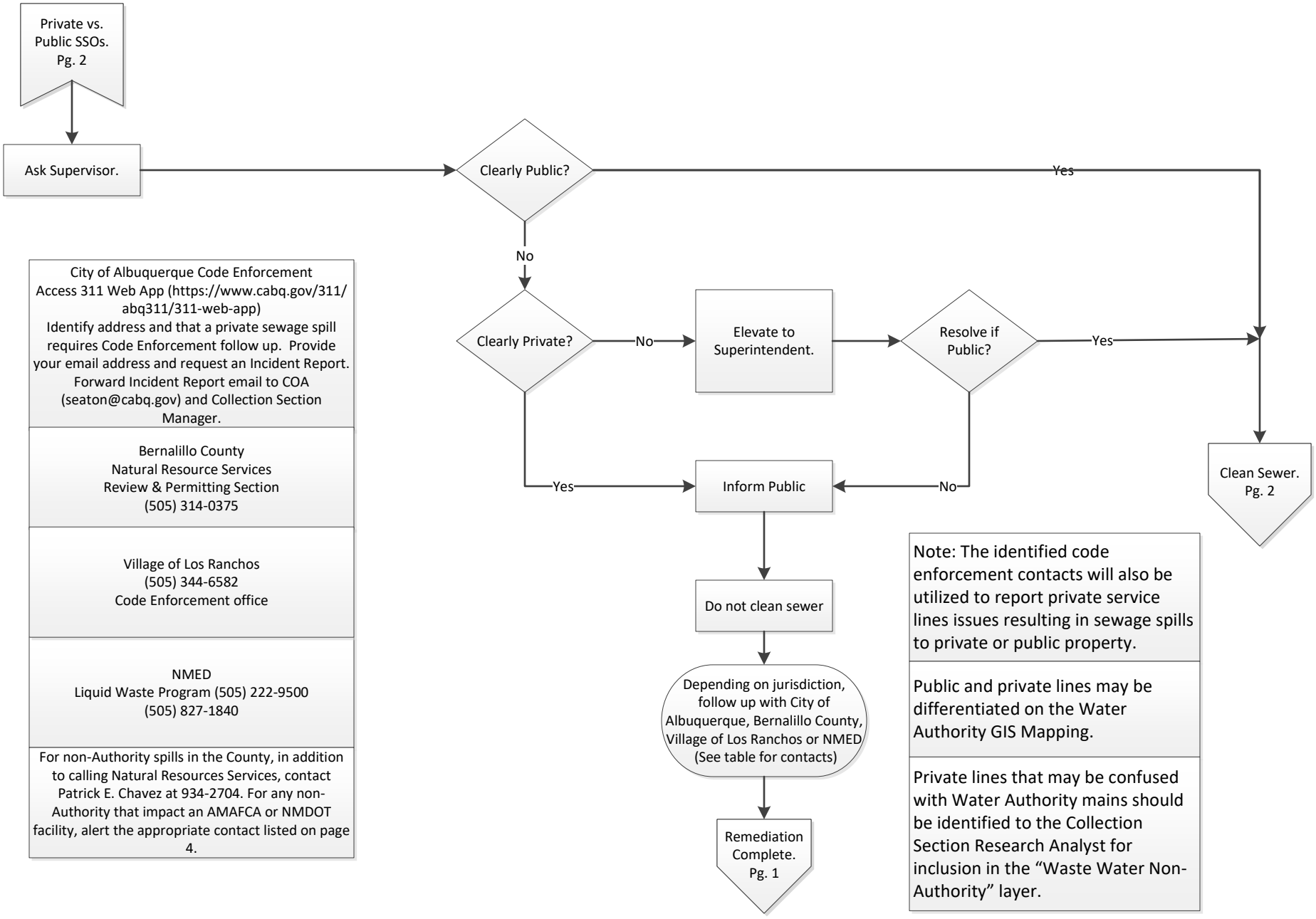
Kali Bronson: Stormwater Program Compliance Lead (505) 537-3005

If Barry Lytle is not immediately available, call:

Jeremy Baca: D-3 Area Maint. Supv. (505) 250-6519
Todd Dunlap: D-3 Area Maint. Supv. (505) 321-5842
Dominic Gallegos: D-3 Area Maint. Supv. (505) 274-4404

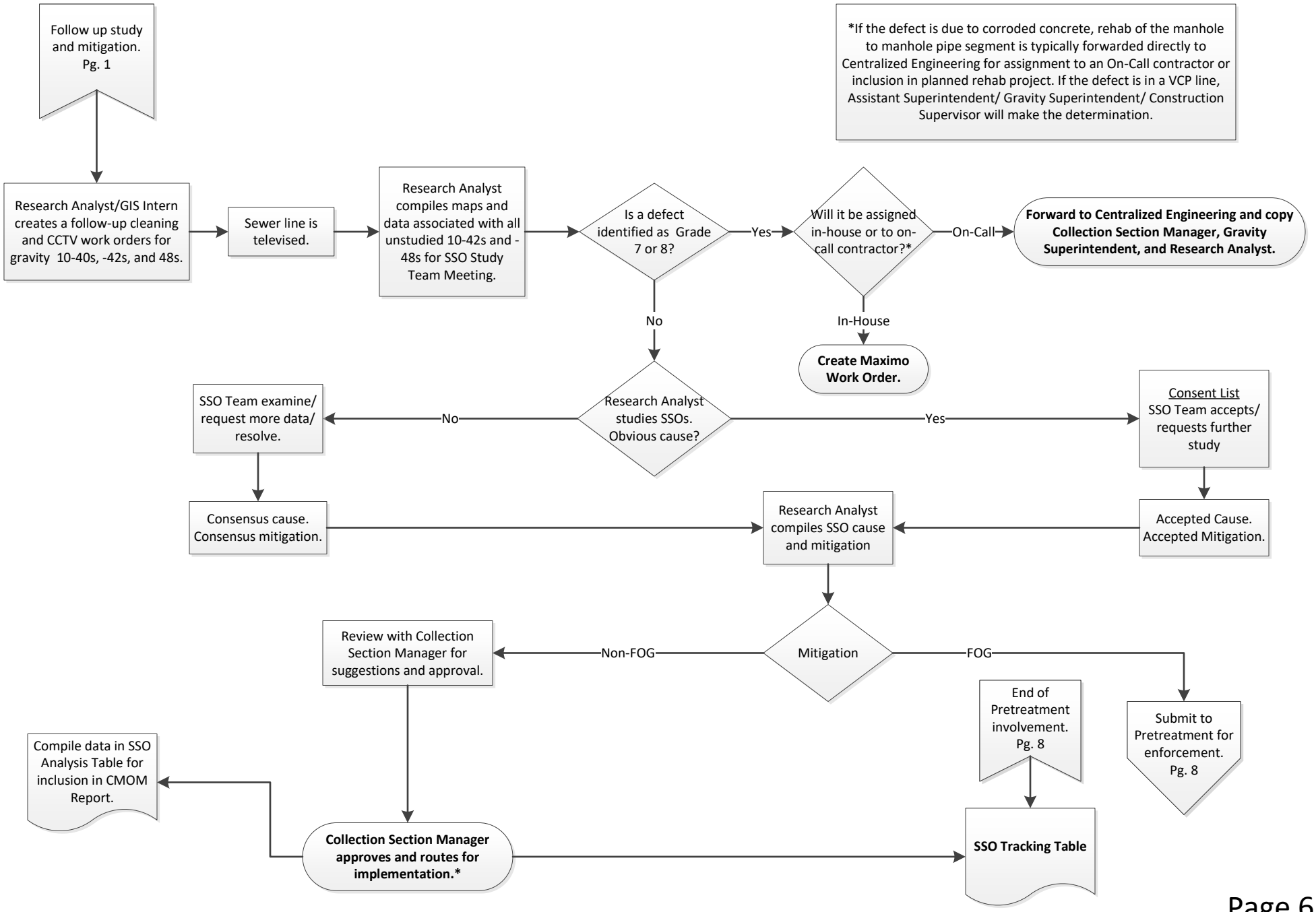
**If Shellie Eaton is not immediately available, call:

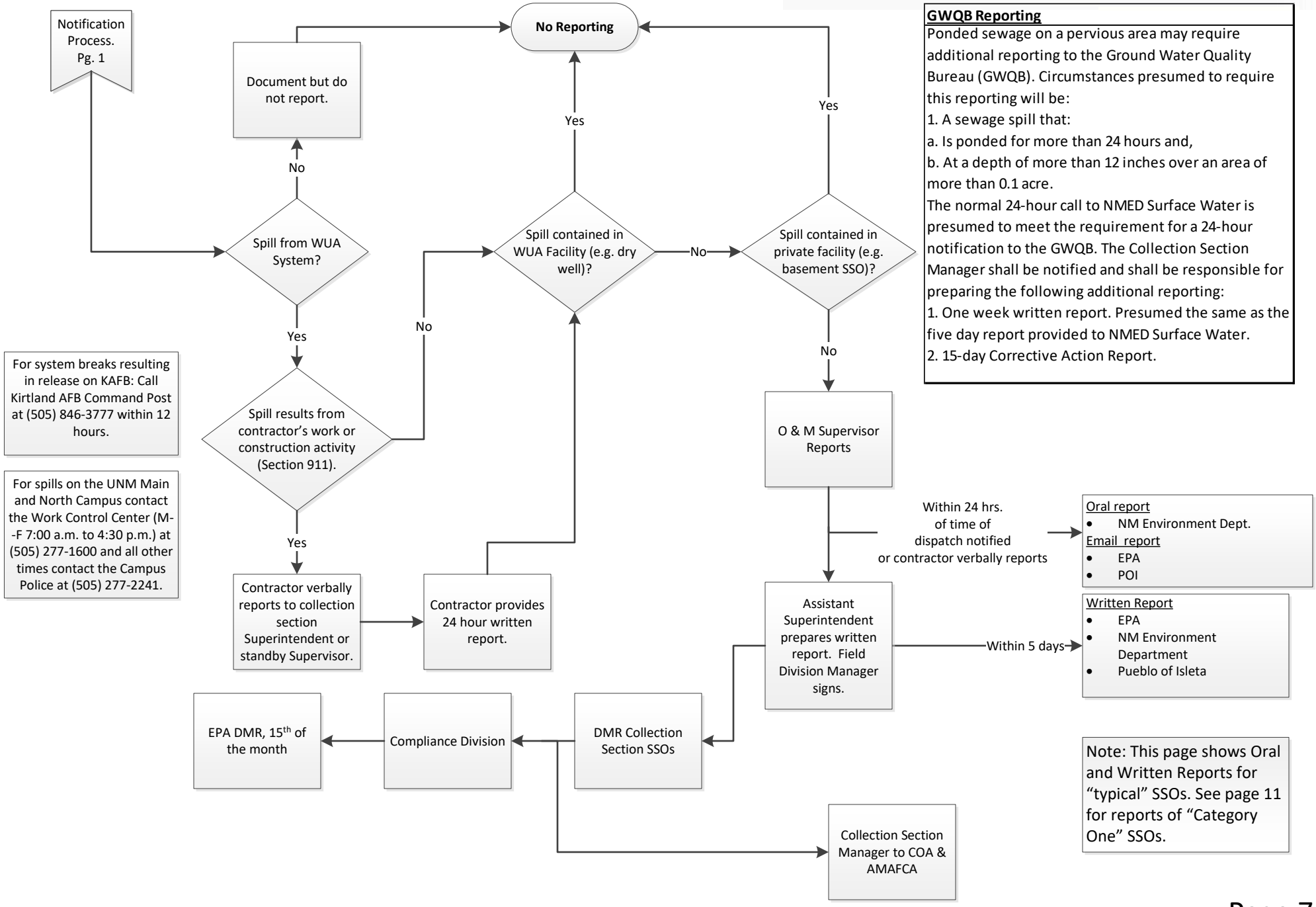
David Harrison: Engr. Div. Manager (505) 238-4158
Daniel Tapia: O&M Manager (505) 228-6874
Fred Montoya: O&M Supt (505) 366-9118



City of Albuquerque Code Enforcement Access 311 Web App (https://www.cabq.gov/311/abq311/311-web-app) Identify address and that a private sewage spill requires Code Enforcement follow up. Provide your email address and request an Incident Report. Forward Incident Report email to COA (seaton@cabq.gov) and Collection Section Manager.
Bernalillo County Natural Resource Services Review & Permitting Section (505) 314-0375
Village of Los Ranchos (505) 344-6582 Code Enforcement office
NMED Liquid Waste Program (505) 222-9500 (505) 827-1840
For non-Authority spills in the County, in addition to calling Natural Resources Services, contact Patrick E. Chavez at 934-2704. For any non-Authority that impact an AMAFCA or NMDOT facility, alert the appropriate contact listed on page 4.

Note: The identified code enforcement contacts will also be utilized to report private service lines issues resulting in sewage spills to private or public property.
Public and private lines may be differentiated on the Water Authority GIS Mapping.
Private lines that may be confused with Water Authority mains should be identified to the Collection Section Research Analyst for inclusion in the “Waste Water Non-Authority” layer.


Follow up study and mitigation. Pg. 1
*If the defect is due to corroded concrete, rehab of the manhole to manhole pipe segment is typically forwarded directly to Centralized Engineering for assignment to an On-Call contractor or inclusion in planned rehab project. If the defect is in a VCP line, Assistant Superintendent/ Gravity Superintendent/ Construction Supervisor will make the determination.
Research Analyst/GIS Intern creates a follow-up cleaning and CCTV work orders for gravity 10-40s, -42s, and 48s.
Sewer line is televised.
Research Analyst compiles maps and data associated with all unstudied 10-42s and -48s for SSO Study Team Meeting.
Is a defect identified as Grade 7 or 8?
Yes
Will it be assigned in-house or to on-call contractor?*
On-Call
Forward to Centralized Engineering and copy Collection Section Manager, Gravity Superintendent, and Research Analyst.
No
In-House
Create Maximo Work Order.
SSO Team examine/ request more data/ resolve.
No
Research Analyst studies SSOs. Obvious cause?
Yes
Consent List
SSO Team accepts/ requests further study
Consensus cause. Consensus mitigation.
Research Analyst compiles SSO cause and mitigation
Accepted Cause. Accepted Mitigation.
Review with Collection Section Manager for suggestions and approval.
Non-FOG
Mitigation
FOG
End of Pretreatment involvement. Pg. 8
Submit to Pretreatment for enforcement. Pg. 8
Compile data in SSO Analysis Table for inclusion in CMOM Report.
Collection Section Manager approves and routes for implementation.*
SSO Tracking Table



GWQB Reporting

Ponded sewage on a pervious area may require additional reporting to the Ground Water Quality Bureau (GWQB). Circumstances presumed to require this reporting will be:

1. A sewage spill that:

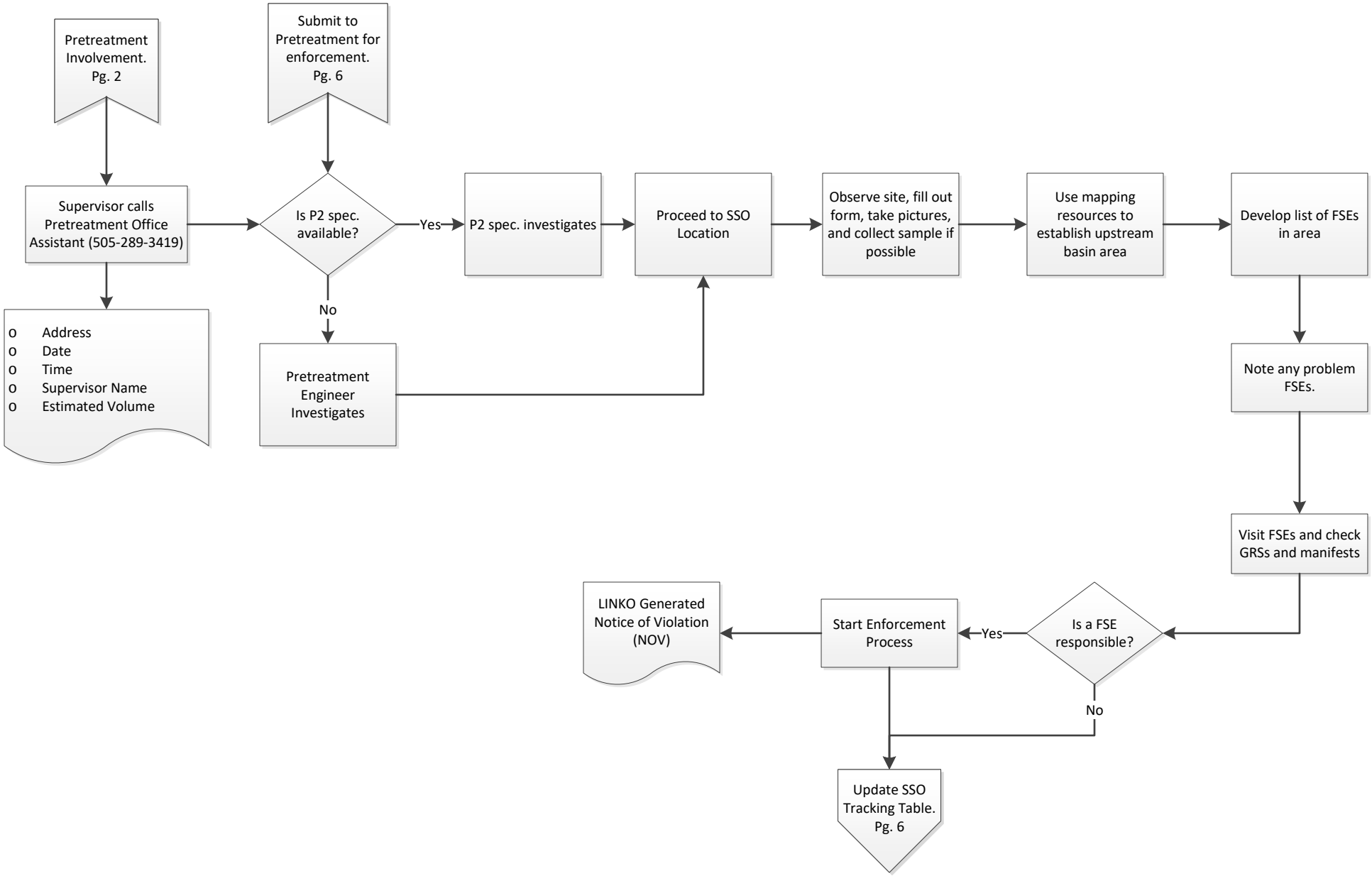
a. Is ponded for more than 24 hours and,

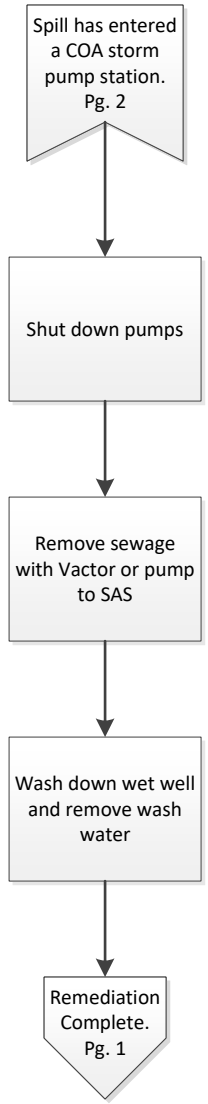
b. At a depth of more than 12 inches over an area of more than 0.1 acre.

The normal 24-hour call to NMED Surface Water is presumed to meet the requirement for a 24-hour notification to the GWQB. The Collection Section Manager shall be notified and shall be responsible for preparing the following additional reporting:

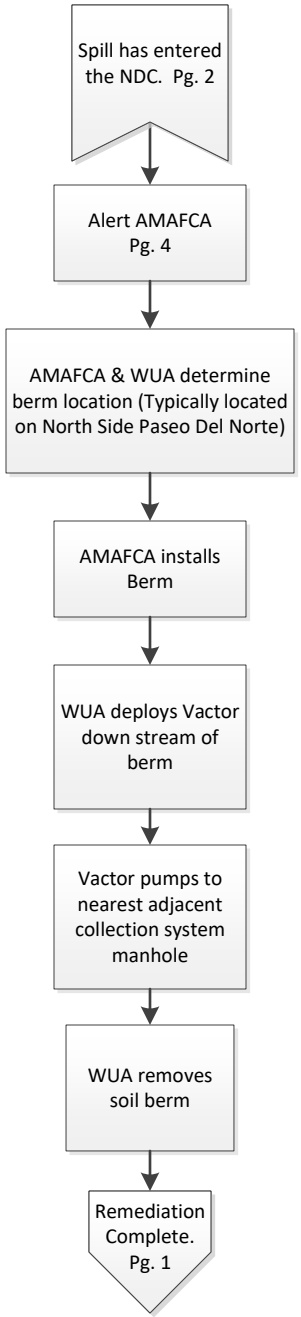
1. One week written report. Presumed the same as the five day report provided to NMED Surface Water.
2. 15-day Corrective Action Report.

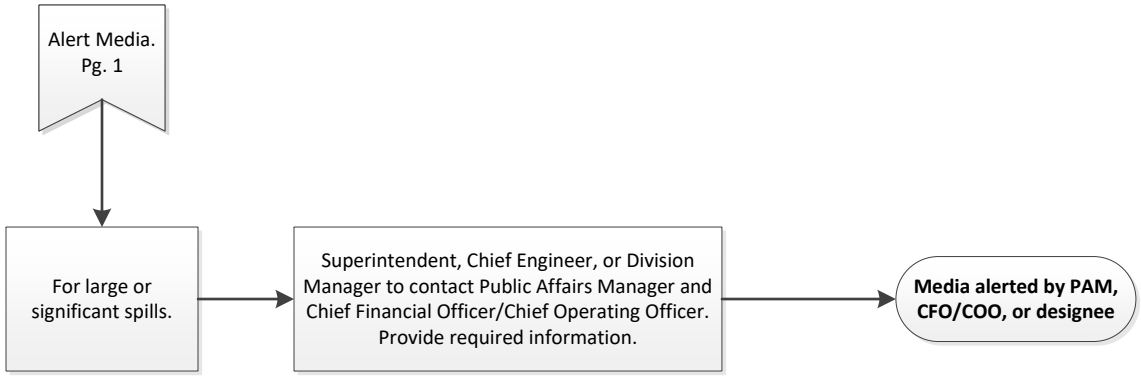
Note: This page shows Oral and Written Reports for "typical" SSOs. See page 11 for reports of "Category One" SSOs.

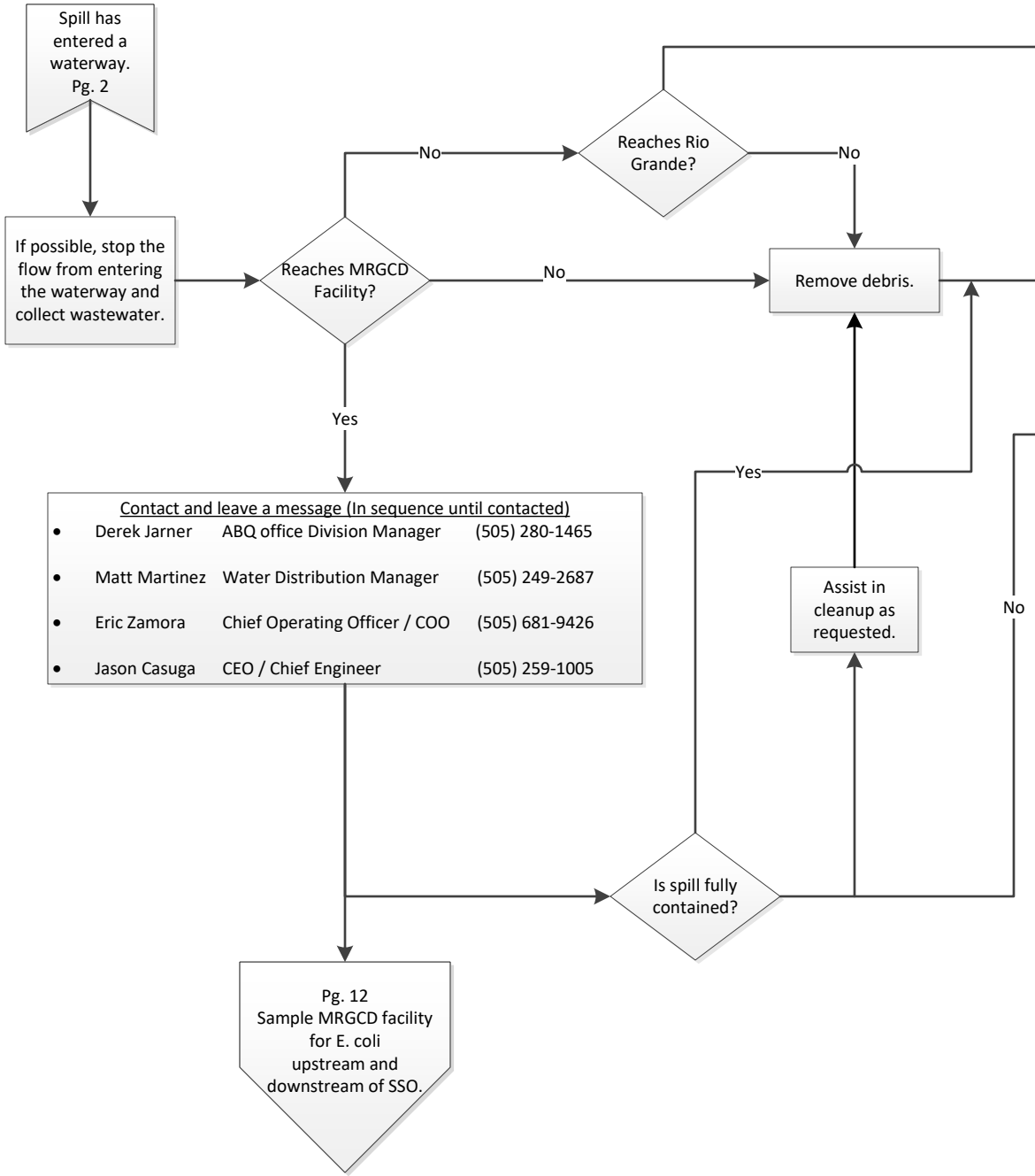

Pretreatment Involvement. Pg. 2
Submit to Pretreatment for enforcement. Pg. 6
Supervisor calls Pretreatment Office Assistant (505-289-3419)
Is P2 spec. available?
Yes
P2 spec. investigates
Proceed to SSO Location
Observe site, fill out form, take pictures, and collect sample if possible
Use mapping resources to establish upstream basin area
Develop list of FSEs in area
o Address
o Date
o Time
o Supervisor Name
o Estimated Volume
No
Pretreatment Engineer Investigates
Note any problem FSEs.
Visit FSEs and check GRSs and manifests
LINKO Generated Notice of Violation (NOV)
Start Enforcement Process
Yes
Is a FSE responsible?
No
Update SSO Tracking Table. Pg. 6



Note: Process shown is for typical spills. Some spills may require a joint response with the City of Albuquerque in which the spill is captured, treated, and determined appropriate for release.




Alert Media.
Pg. 1
For large or significant spills.
Superintendent, Chief Engineer, or Division Manager to contact Public Affairs Manager and Chief Financial Officer/Chief Operating Officer. Provide required information.
Media alerted by PAM, CFO/COO, or designee

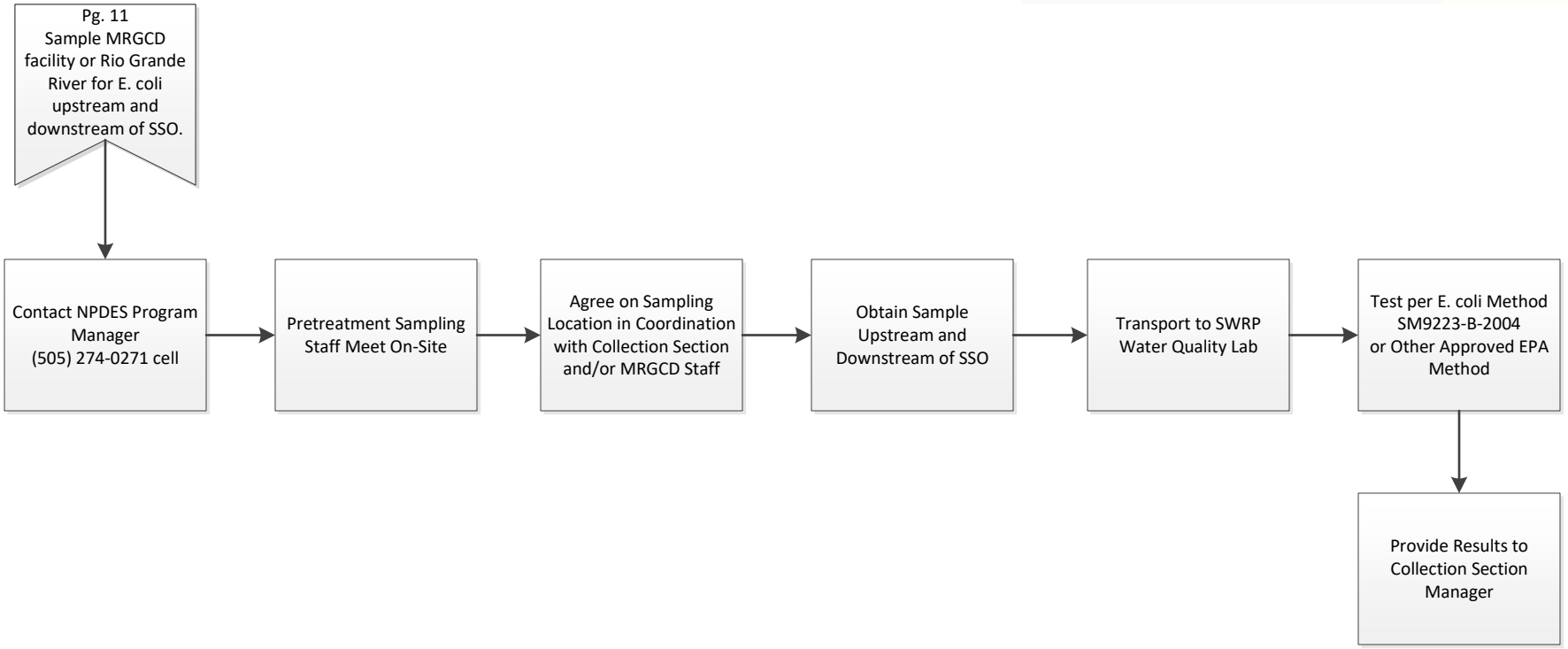


Category One SSO

Immediately following the overflow event, contact the following numbers until a live person is reached. In the event there is no answer, leave a message on each number.

POI Category One Protocol Contacts

Position	Name	Mobile Number	Office Number
Environmental Specialist, Water Quality Control Officer	Ramona Montoya	(505) 263-5425	(505) 869-7565
Environmental Technician	Heaven Lucero	(505) 917-8346	(505) 869-9814
	Kyle Aguilar	(505) 318-8061	(505) 869-9819
Department of Natural Resources Director	Clint Lente	(505) 480-7556	(505) 869-5748
DNR Administrative Assistant III	Jared J Jojola	(505) 206-1745	(505) 869-9817
Transportation Services Manager	James Weldon	(505) 933-1225	(505) 869-9833
Water Resources Manager	Andrew Sweetman	(505) 228-4316	(505) 869-7566


Pg. 11
Sample MRGCD facility or Rio Grande River for E. coli upstream and downstream of SSO.
Contact NPDES Program Manager (505) 274-0271 cell
Pretreatment Sampling Staff Meet On-Site
Agree on Sampling Location in Coordination with Collection Section and/or MRGCD Staff
Obtain Sample Upstream and Downstream of SSO
Transport to SWRP Water Quality Lab
Test per E. coli Method SM9223-B-2004 or Other Approved EPA Method
Provide Results to Collection Section Manager

2008-18

AGREEMENT FOR DESIGN, CONSTRUCTION AND
CONSTRUCTION ENGINEERING SERVICES FOR
AGENCY AND AREA-WIDE FLOOD CONTROL MAINTENANCE CONTRACT

NO._____

VENDOR NO._____

THIS AGREEMENT is made and entered into this 2nd day of June, 2008, by and among the ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY, a political subdivision of the State of New Mexico ("AMAFCA"), and the CITY OF ALBUQUERQUE, a municipal corporation ("CITY") individually referred to as "PARTY" and collectively referred to as the "PARTIES."

RECITALS:

1. **WHEREAS,** AMAFCA, and the CITY have coordinated construction of flood control improvements that connect to flood control facilities within each PARTY's rights of way; and

2. **WHEREAS,** the CITY, and AMAFCA required to maintain the hydraulic performance of said flood control facilities as they are recognized by the Department of Homeland Security Federal Emergency Management Agency as providing 100-year flood protection; and

3. **WHEREAS,** it is in the public interest to minimize traffic impacts to the traveling public by having all traffic control, detours and traffic lane closures under the control of a single agency, during routine maintenance and or emergency work on flood control facilities; and

4. **WHEREAS,** the execution of the hereinafter described services is necessary for AMAFCA, and the CITY to accomplish their mission of providing flood control for the greater Albuquerque area.

NOW THEREFORE, In consideration of the covenants contained herein THE PARTIES AGREE AS FOLLOWS:

Section One – Purpose of Agreement

1.1 Define responsibilities between the PARTIES for the funding of design, construction, and construction management services for an area-wide maintenance and emergency repair contract for surface flood control structures, herein known as the PROJECT.

1.2 Establish lines of communication and contract obligations between the PARTIES for routine maintenance and emergency repair work to be performed on each agency's flood control structures and within each agency's rights of way.

1.3 Establish a fiscal agent to procure and administer a professional engineering services contract to provide design and construction engineering services as required to design, bid, award and administer a construction contract to provide routine maintenance and emergency flood control facility repair work acceptable to the PARTIES.

1.4 Establish a fiscal agent to procure and administer the construction contract for the PROJECT, with the provision that the construction contract will remain open through September 2009, in order to allow for emergency flood control facility repairs during the storm seasons of 2008 and 2009.

1.5 To establish each PARTY's responsibilities in defining maintenance needs within each PARTY's flood control facilities that will be included in the contract documents for the PROJECT. This will include participation in identification and prioritization of required maintenance work within each agency's jurisdiction and will also include the inspection and acceptance of said maintenance work by each of the PARTIES before final payment is made to the PROJECT contractor by the fiscal agent.

1.6 Provide for the delegation of daily inspection of maintenance work within each of the PARTY's rights of way.

1.7 Establish a command structure for emergency flood control work. The PARTIES agree to follow an Incident Command System (ICS) to standardize on-scene incident management.

Section Two – AMAFCA Agrees to:

2.1 Be the fiscal agent for the purposes of this Agreement. All funds from the PARTIES will be held in a separate AMAFCA-held interest-bearing bank account (the "PROJECT ACCOUNT"). Interest accrued will be tracked on behalf of each PARTY, based on the timing and amount of their funding contribution(s) and respective disbursements. Interest accrued will be available for PROJECT costs incurred by each PARTY. At the completion of the PROJECT, AMAFCA will refund any remaining PROJECT funding and /or interest accrued to the respective PARTIES. AMAFCA shall make available to the PARTIES, all records, receipts, and other documentation with respect to all matters concerning this Agreement and shall have the PROJECT ACCOUNT included in its annual audit.

2.2 Procure engineering services as necessary to provide design and construction engineering services through the Request for Proposal process. The engineer will be responsible for gathering infrastructure needs from each of the PARTIES and incorporating that information into the contract documents. The contract documents will include separate bid lots for each PARTY, and each bid lot will include separate task orders for work, identified by type or location of work, with each task order to have a separate listing of bid items and quantity listing, separate notice to proceed date, construction days allowed, liquidated damages, and acceptance of completion of work. The engineer will also assist AMAFCA in calling for bids, conducting the pre-bid tour, opening bids, and making recommendation of award to AMAFCA. This work shall be referred to as the 'PROJECT DESIGN". The engineer will also provide project management, to include

the preconstruction conference, contract administration, inspection of the construction, geotechnical testing, preparation of monthly pay estimates and change orders, certification of completed work, preparation of record drawings, and other supervision of construction to assure the construction is in conformance with the plans and specifications for the PROJECT. This work shall be referred to as the "PROJECT MANAGEMENT". Each PARTY will be required to have two representatives on the Selection Advisory Committee for this procurement. The Selection Advisory Committee will rank proposals and recommend the top three respondents to the AMAFCA Board of Directors. Upon AMAFCA Board of Directors' acceptance of the Selection Advisory Committee recommendation, AMAFCA will negotiate an agreement with the top ranked engineer. The CITY will provide input on the scope and fees; however, final negotiations and approval of the PROJECT DESIGN and PROJECT MANAGEMENT contract will be at AMAFCA's sole discretion.

2.3 Upon AMAFCA approval of the PROJECT DESIGN contract, AMAFCA will authorize the engineer to begin work and will invoice the CITY for its portion of the PROJECT DESIGN contract costs, including New Mexico gross receipts tax, estimated to be $20,000.00 each. AMAFCA will provide its portion of the PROJECT DESIGN contract costs, including New Mexico gross receipts tax, also estimated to be $20,000.00, and deposit its, and the CITY's funding in the PROJECT ACCOUNT. AMAFCA will administer and manage the PROJECT DESIGN contract and will approve and make all required payments to the selected engineer.

2.4 Provide at least one Professional Engineer from staff to participate and assist in the identification and prioritization of AMAFCA maintenance and repair work to be included in the contract documents. This maintenance and repair work is expected to total $500,000.00 in construction costs. This work will be included within the "AMAFCA Bid Lot" of the contract documents.

2.5 To bid and award the PROJECT through its normal construction procurement method. Upon successful award of the construction contract, AMAFCA will invoice the CITY for its' respective bid lots at actual bid costs, plus ten percent (10%) for PROJECT MANAGEMENT, all to include New Mexico gross receipts tax. AMAFCA will provide its funding for the AMAFCA Bid Lot actual bid costs, plus ten percent (10%) for PROJECT MANAGEMENT, all to include New Mexico gross receipts tax and deposit its and the CITY's funding in the PROJECT ACCOUNT.

2.6 AMAFCA will direct the PROJECT contractor to complete work through a task order process. If an item of work needed to complete a task order is not covered in the contract documents, or if additional task orders are identified and funded during the course of the PROJECT, AMAFCA will initiate a change order to the PROJECT contract by requesting a proposal from the contractor. Should this work require additional engineering design services, AMAFCA will negotiate with the engineer and approve additional engineering design services, with the understanding that the requesting PARTY will concur with the scope and fees for, and fund such additional engineering design services. The PARTY with a task order that requires a change order will approve the change order before the change order is finalized by AMAFCA and sent to the contactor. Upon approval of the change order by AMAFCA, the requesting PARTY and the contractor, AMAFCA will direct the contractor to proceed with the change order and will invoice the requesting PARTY the amount of the additional engineering design services, if any, plus the amount of the change order, plus ten percent (10%) for PROJECT MANAGEMENT, all to include New Mexico gross receipts tax

2.7 Process and pay monthly applications for work completed by the PROJECT contractor. Final payment for each task order will be made by AMAFCA only after the PARTY responsible for maintenance of the facility accepts the work.

2.8 Work with the CITY to develop Emergency Task Orders as may be needed. Emergency Task Orders will be developed by each PARTY. Should this work require additional engineering design services, AMAFCA will negotiate with the engineer and approve additional engineering design services, with the understanding that the requesting PARTY will concur with the scope and fees for, and fund such additional engineering design services. If an item of work needed to complete an Emergency Task Order is not covered in the contract documents, AMAFCA will request a new unit price proposal from the PROJECT contractor. The PARTY requesting an Emergency Task Order will approve the change order before the Emergency Task Order change order is finalized by AMAFCA and sent to the contractor. Upon approval of the Emergency Task Order change order by AMAFCA, the requesting PARTY and the contractor, AMAFCA will issue notice to proceed on the Emergency Task Order change order to the contractor and will invoice the requesting PARTY the amount of the additional engineering design services, if any, plus the amount of the resulting change order to the PROJECT contract, plus ten percent (10%) for PROJECT MANAGEMENT, all to include New Mexico gross receipts tax.

2.9 Hold a preparatory meeting with the contractor and the respective flood control facility owner before a notice to proceed on each task order is given. The purpose of the preparatory meeting is to identify the scope of work associated with the task order, care and diversion of water, time constraints, any special conditions and acceptance criteria for final acceptance of the work by the relevant PARTY.

2.10 Implement all terms and conditions of the PROJECT contract.

2.11 Provide copies of all geotechnical testing reports and daily inspection reports as requested by the PARTIES.

2.12 Halt work to allow remedial measures to be taken should the work be out of compliance with the plans and specifications.

2.13 Fund any AMAFCA-authorized Emergency Task Order(s) on AMAFCA facilities, to include any additional engineering design services, change order amount, plus ten percent (10%) for PROJECT MANAGEMENT, all to include New Mexico gross receipts tax.

2.16 Provide, thru an auxiliary contract, or change order to the PROJECT construction contract, any and all traffic control needed during an Emergency Task Order executed for an AMAFCA flood control facility.

2.17 Provide daily inspection of maintenance work performed on AMAFCA facilities thru the PROJECT MANAGEMENT contract.

2.18 Continue to own, operate and maintain any AMAFCA flood control facility maintained, modified or repaired via this Agreement.

Section Three – CITY Agrees to:

3.1 Designate two Professional Engineers from CITY staff to participate in the Selection Advisory committee for the PROJECT DESIGN and PROJECT MANAGEMENT.

3.2 Fund its portion of the PROJECT DESIGN costs, including New Mexico gross receipts tax, estimated to be $20,000.00. AMAFCA may invoice the CITY for this amount anytime after AMAFCA approval of the PROJECT DESIGN contract. The CITY will make payment within 45 days of receipt of invoice from AMAFCA.

3.3 Provide at least one Professional Engineer from CITY staff to participate and assist in the identification and prioritization of CITY maintenance and repair work to be included in the contract documents. This maintenance and repair work is expected to total approximately $250,000.00 in construction costs. This work will be included within the "CITY Bid Lot" of the contract documents.

3.4 Fund the CITY Bid Lot portion of the PROJECT at actual bid cost, plus ten percent (10%) for PROJECT MANAGEMENT, all to include New Mexico gross receipts tax. The CITY will make payment within 45 days of receipt of invoice from AMAFCA. Invoice may be sent by AMAFCA to CITY any time after successful award of the PROJECT construction contract.

3.5 Review, approve and fund any change order(s) necessary for completion of any task order within the CITY Bid Lot, or for any additional task orders identified and funded by the CITY during the course of the PROJECT. Upon approval of the change order by AMAFCA, the CITY and the contractor, the CITY will pay AMAFCA the amount of the additional engineering design services, if any, plus the amount of the change order, plus ten percent (10%) for PROJECT MANAGEMENT, all to include New Mexico gross receipts tax. The CITY will make payment within 45 days of receipt of invoice from AMAFCA.

3.6 Develop, review, approve and fund any Emergency Task Order(s) and resulting change order(s) to the PROJECT contract for any emergency repair work deemed necessary by the CITY during the term of the PROJECT construction contract. Upon approval of the Emergency Task Order change order(s) by AMAFCA, the CITY and the contractor, the CITY will pay AMAFCA the amount of the additional engineering design services, if any, plus the amount of the change order, plus ten percent (10%) for PROJECT MANAGEMENT, all to include New Mexico gross receipts tax. The CITY will make payment within 45 days of receipt of invoice from AMAFCA.

3.7 Provide, thru an auxiliary contract or change order to the PROJECT construction contract, any and all traffic control needed during an Emergency Task Order executed for a CITY flood control facility.

3.8 Provide daily inspection of maintenance work performed on CITY facilities through the PROJECT MANAGEMENT contract.

3.9 Participate in the preparatory meeting with the contractor as the facility owner before a notice to proceed on each task order is given. The CITY will attend the final inspection of the work and provide acceptance of maintenance work performed to AMAFCA.

3.10 Continue to own, operate and maintain any CITY flood control facility maintained, modified or repaired via this Agreement.

Section Four –The Parties Agree:

4.1 To review and, if appropriate, jointly approve the construction documents prior to bidding of the PROJECT. The PARTIES agree that the framework and base specifications for the construction documents will be the New Mexico Department of Transportation Specifications for Bridge and Highway Construction, as modified by the PARTIES with supplemental specifications.

4.2 To cooperate with the resolution of any claim, and each designate a Claims Resolution Officer. The Claims Resolution Officer shall have authority to settle PROJECT construction contract claims up to a minimum of $20,000.00. Each PARTY's Claims Resolution Officer shall have the authority and responsibility to investigate, negotiate and resolve any and all claims that

may result from construction of that PARTY'S Bid Lot and/or Emergency Task Order(s), up to the Claims Resolution Officer's claim settlement limit. When such claims are settled, the Claims Resolution Officer shall notify AMAFCA who will then execute a change order to the PROJECT construction contract to effect the terms of the claims settlement. Upon execution of the change order, AMAFCA will invoice the responsible PARTY for the claim settlement amount, if any, and AMAFCA will then make payment of the claim as part of the next normal monthly pay estimate due to the PROJECT construction contractor. The responsible PARTY will make payment to AMAFCA within 45 days of receipt of invoice from AMAFCA. Should the Claims Resolution Officer and the PROJECT construction contractor not agree on resolution of such claim, or if the claim is greater than the Claims Resolution Officer's claim settlement limit, the PROJECT construction contract shall mandate arbitration under the current Construction Industry Arbitration Rules of the American Arbitration Association, provided that the AMAFCA Board of Directors reserves its rights to consider or reconsider any such claim regarding the AMAFCA Bid Lot and/or an AMAFCA Emergency Task Order and make resolution thereof. Nothing herein shall preclude the PARTIES' ability to mediate any claim. In the event of any claim, the PARTY whose Task Order(s) has generated such claim shall be responsible for all costs, and any settlement or judgment amount arising from the claim or resolution of the claim, including attorney's fees and costs, and shall take all actions necessary to resolve the claim under the current rules of the American Arbitration Association. In the event the Arbitrator determines claim settlement payment is due to the PROJECT construction contractor, the PARTY shall notify AMAFCA who will then execute a change order to the PROJECT construction contract to effect the terms of the claims settlement. Upon execution of the change order, AMAFCA will invoice the responsible PARTY for the claim settlement amount, if any, and AMAFCA will then make payment of the claim as part of the next normal monthly pay estimate due to the PROJECT construction contractor. The responsible PARTY will make payment to AMAFCA within 45 days of receipt of invoice from AMAFCA.

4.3 To establish a command structure for emergency work. The PARTIES agree to follow an Incident Command System (ICS) to standardize on-scene incident management. Each party will identify an Incident Commander that will be responsible to direct emergency operations for each agency's flood control facilities. The Incident Commander will be the lead in developing Emergency Task Orders and will have the authority to direct AMAFCA to deploy the PROJECT construction contractor as needed. The PARTIES and each of their respective Incident Commanders will attend a class, "Introduction to the Incident Command System, I-100", to be set up by AMAFCA within two months of the approval of this agreement.

4.4 That this AGREEMENT is not intended by any of the provisions of any part of the AGREEMENT to create in the public, or any member thereof, a third party beneficiary or to authorize anyone not a party to the AGREEMENT to maintain a suit for wrongful death, bodily and/or personal injury to person, damage to property, and/or any other claim(s) whatsoever pursuant to the provisions of this AGREEMENT.

4.5 That by entering into this AGREEMENT, the PARTIES shall not be responsible for liability incurred as a result of the other PARTIES' acts or omissions in connection with this AGREEMENT. Any liability incurred in connection with this AGREEMENT is subject to the immunities and limitations of the New Mexico Tort Claims Act, NMSA 1978, Sections 41-4-1, et seq., (as amended). This paragraph is intended only to define the liabilities between the PARTIES hereto and it is not intended to modify, in any way, the PARTIES' liabilities as governed by common law or the New Mexico Tort Claims Act. AMAFCA and their "public employees" as defined in the New Mexico Tort Claims Act, and the CITY and its "public employees" as defined in the New Mexico Tort Claims Act, do not waive sovereign immunity, do not waive any defense and/or do not waive any limitation of liability pursuant to law. No provision in this AGREEMENT modifies and/or waives any provision of the New Mexico Tort Claims Act.

4.6 That this AGREEMENT incorporates all the agreements, covenants, and understandings between the PARTIES hereto concerning the subject matter hereof. No prior agreements or understandings, verbal or otherwise, of the PARTIES or their agents shall be valid or enforceable unless embodied in this AGREEMENT. Performance of all duties and obligations herein shall conform with and do not contravene any state, local, or Federal statutes, regulations, rules, or ordinances. All notices with respect to this AGREEMENT shall be in writing and shall be delivered personally, sent via confirmed fax, or sent postage prepaid by United States Certified Mail, return receipt requested, to the addresses set forth below or such other addresses as hereafter specified in writing by one Party to the other:

Albuquerque Metropolitan Arroyo
Flood Control Authority
2600 Prospect Ave. NE
Albuquerque, New Mexico 87107
Attn: Executive Engineer

City of Albuquerque
Department of Municipal Development
P.O. Box 1293
Albuquerque, NM 87103
Attn: Director, Department of Municipal Development

4.7 That this AGREEMENT shall not take effect until executed by all of the PARTIES hereto.

4.8 That in the event that any portion of this AGREEMENT is determined to be void, unconstitutional or otherwise unenforceable, the remainder of this AGREEMENT shall remain in full force and effect.

4.9 Disputes under this Agreement will be referred to binding arbitration under the provisions of the New Mexico Uniform Arbitration Act.

4.10 This AGREEMENT shall not be altered, modified, or amended except by an instrument in writing and executed by the PARTIES hereto.

IN WITNESS WHEREOF, the parties have set their hands and seals this day and year set forth below.

ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY

By: _____ Date: 5/22/08
Danny Hernandez, Chairman
AMAFCA Board of Directors

ATTEST:

By: _____ Date: 5/22/08
Tim Eichenberg, Secretary/Treasurer
AMAFCA Board of Directors

APPROVED AS TO FORM BY AMAFCA'S ATTORNEY

By: _____ Date: 05/21/08
Marcus Rael
Legal Counsel

ACKNOWLEDGMENT

STATE OF NEW MEXICO)
)ss.
COUNTY OF BERNALILLO)

This instrument was acknowledged before me on May 22, 2008, by Danny Hernandez, Chairman of the Board of Directors, on behalf of the Albuquerque Metropolitan Arroyo Flood Control Authority, a political subdivision of the State of New Mexico.

Pamela S. Woodruff
Notary Public

My Commission Expires:

9-22-08

OFFICIAL SEAL
PAMELA S. WOODRUFF
Notary Public
State of New Mexico
My Commission Expires 9-22-08

City of Albuquerque

Bruce J. Perlman, Ph.D., Chief Administrative Officer — Date: 5/30/08

John R. Castillo, P.E., Director, Department of Municipal Development — Date: 5/22/08

Reviewed as to Form:

City Attorney — Date: 5-23-8

Attest:

City Clerk — Date: 6/2/08

ACKNOWLEDGMENT

STATE OF NEW MEXICO)
)ss.
COUNTY OF BERNALILLO)

This instrument was acknowledged before me on May 30, 2008, by Bruce J. Perlman, Ph.D., Chief Administrative Officer for the City of Albuquerque, a New Mexico municipal corporation.

Notary Public

My Commission Expires: 1-27-2010

2008-18

FIRST AMENDMENT TO
"AGREEMENT FOR DESIGN, CONSTRUCTION AND
CONSTRUCTION ENGINEERING SERVICES FORAGENCY
AND AREA-WIDE FLOOD CONTROL MAINTENANCE CONTRACT"

THIS FIRST AMENDMENT to Agreement for Design, Construction and Construction Engineering Services for Agency and Area-Wide Flood Control Maintenance Contract is made and entered into this 19th day of October, 2009, by and between Albuquerque Metropolitan Arroyo Flood Control Authority, a political subdivision of the State of New Mexico (hereinafter referred to as AMAFCA), and the City of Albuquerque, a municipal corporation (hereinafter referred to as CITY).

RECITALS:

1. **WHEREAS**, on June 2, 2008, AMAFCA and the CITY entered into the agreement titled "Agreement for Design, Construction and Construction Engineering Services for Agency and Area-Wide Flood Control Maintenance Contract" ("ORIGINAL AGREEMENT") to define responsibilities for the funding, design, construction, construction management of the PROJECT and to establish a fiscal agent to procure and administer professional engineering services contract(s) and to procure and administer the contraction contract(s) for the PROJECT; and

2. **WHEREAS**, the ORIGINAL AGREEMENT provided for a construction contract that would remain open through September 2009, in order to allow for emergency flood control facility repairs during the storm seasons of 2008 and 2009; and.

3. **WHEREAS**, the CITY and AMAFCA have funding programmed for FY-2010 and FY-2011 for similar PROJECT type work, and desire to follow the same course of action and respective participatory roles as were described in the ORIGINAL AGREEMENT in order to procure professional engineering services and a follow-on construction contract in order to allow for planned and emergency flood control facility repairs prior to and during the storm seasons of 2010 and 2011.

NOW THEREFORE, AMAFCA and the CITY hereby agree to amend the ORIGINAL AGREEMENT as follows:

In Section One of the ORIGINAL AGREEMEMT, Purpose of Agreement:

Delete paragraph 1.1 in its entirety and replace with the following:

1.1 Define responsibilities between the PARTIES for the funding of design, construction, and construction management services for the second phase of an area-wide maintenance and emergency repair contract for surface flood control structures, herein known as the PROJECT.

Delete paragraph 1.3 in its entirety and replace with the following:

1.3 Continue to use AMAFCA as the fiscal agent to procure and administer a professional engineering services contract to provide design and construction engineering services as required to design, bid, award and administer a construction contract to provide routine maintenance and emergency flood control facility repair work acceptable to the PARTIES.

Delete paragraph 1.4 in its entirety and replace with the following:

1.4 Continue to use AMAFCA as the fiscal agent to procure and administer the construction contract for the PROJECT, with the provision that the construction contract will remain open through November 2011, in order to allow for planned and emergency flood control facility repairs prior to and during the storm seasons of 2010 and 2011.

In Section Three of the ORIGINAL AGREEMENT, City Agrees to:

Delete paragraph 3.3 in its entirety and replace with the following:

3.3 Provide at least one Professional Engineer from CITY staff to participate and assist in the identification and prioritization of CITY maintenance and repair work to be included in the contract documents. This maintenance and repair work is expected to total approximately $165,000 in construction costs. This work will be included within the "CITY Bid Lot" of the contract documents. This maintenance and repair work may be increased in scope and quantity depending on the CITY's availability of funding.

In Section Four of the ORIGINAL AGREEMENT, The Parties Agree:

Add the following Paragraph 4.11

4.11 That any CITY or AMAFCA funding remaining in the PROJECT ACCOUNT shall remain in the PROJECT ACCOUNT and be made available for the PROJECT. The PARTIES further recognize that the PROJECT ACCOUNT has been invested in the State of New Mexico Local Government Investment Pool ("LGIP") and effective March 4, 2009, based on balances in the PROJECT ACCOUNT on September 15, 2009, a portion of such remaining funds has been set aside in the LGIP Reserve Contingency Fund, and currently is not available for withdrawal. As of June 30, 2009, the CITY's total balance in the PROJECT ACCOUNT was $7,660.17, of which $2,717.47 is set aside in the LGIP Reserve Contingency Fund. As of June 30, 2009, AMAFCA's total balance in the PROJECT ACCOUNT was $64,046.05, of which $13,757.30 is set aside in the LGIP Reserve Contingency Fund. As further distributions are made by LGIP, the amount reserved in the LGIP Reserve Contingency Fund amount will be decreased accordingly, with the same amount then made available for PROJECT costs. Both PARTIES further recognize that the amounts reserved within the LGIP Reserve Contingency Fund may not be disbursed in a timely manner, or disbursed at all, by LGIP.

The terms and conditions of the ORIGINAL AGREEMENT will remain unchanged and will continue in full force and effect unless there is a conflict between the terms and conditions of this

FIRST AMENDMENT, and the terms and conditions of the ORIGINAL AGREEMENT, in which case the terms and conditions of the FIRST AMENDMENT to ORIGINAL AGREEMENT will control.

IN WITNESS WHEREOF, the undersigned have caused this FIRST AMENDMENT to be executed as of the day and year set forth above.

Albuquerque Metropolitan Arroyo Flood Control Authority

Attest:

By: Ronald D. Brown, Chair
Board of Directors

Danny Hernandez, Secretary-Treasurer,
Board of Directors

Date: 8/27/09

City of Albuquerque

Ed Adams, P.E.
Chief Administrative Officer

Date: 10.19.09

Michael Riordan, P.E.
Acting Director, Department of Municipal Development

Date: 10/14/09

Reviewed as to Form:

City Attorney

Date: 10-6-9

Attest:

City Clerk

Date: 10/27/9

ACKNOWLEDGMENT

STATE OF NEW MEXICO)
)ss.
COUNTY OF BERNALILLO)

This instrument was acknowledged before me on August 27, 2009, by Ronald D. Brown, Chair of the Board of Directors, on behalf of the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA), a political subdivision of the State of New Mexico.

Pamela S. Woodruff
Notary Public

My Commission Expires:

10-2-12

OFFICIAL SEAL
PAMELA S. WOODRUFF
Notary Public
State of New Mexico
My Commission Expires 10-2-12

ACKNOWLEDGMENT

STATE OF NEW MEXICO)
)ss.
COUNTY OF BERNALILLO)

This instrument was acknowledged before me on OCTOBER 19, 2009, by Ed Adams, P.E., Chief Administrative Officer for the City of Albuquerque, a New Mexico municipal corporation.

Marilyn Baca
Notary Public

My Commission Expires:

06/03/2012

2008-18

SECOND AMENDMENT TO
"AGREEMENT FOR DESIGN, CONSTRUCTION AND
CONSTRUCTION ENGINEERING SERVICES FORAGENCY
AND AREA-WIDE FLOOD CONTROL MAINTENANCE CONTRACT"

THIS SECOND AMENDMENT to Agreement for Design, Construction and Construction Engineering Services for Agency and Area-Wide Flood Control Maintenance Contract is made and entered into this 16 day of December, 2011, by and between the Albuquerque Metropolitan Arroyo Flood Control Authority, a political subdivision of the State of New Mexico (hereinafter referred to as "AMAFCA"), and the City of Albuquerque, a municipal corporation (hereinafter referred to as "the CITY").

RECITALS:

1. **WHEREAS**, on June 2, 2008, AMAFCA and the CITY entered into the agreement titled "Agreement for Design, Construction and Construction Engineering Services for Agency and Area-Wide Flood Control Maintenance Contract" ("ORIGINAL AGREEMENT") to define responsibilities for the funding, design, construction, construction management of the PROJECT and to establish a fiscal agent to procure and administer professional engineering services contract(s) and to procure and administer the construction contract(s) for the PROJECT; and

2. **WHEREAS**, the ORIGINAL AGREEMENT provided for a construction contract that would remain open through September 2009, in order to allow for emergency flood control facility repairs during the storm seasons of 2008 and 2009; and

3. **WHEREAS**, the CITY and AMAFCA had funding programmed for FY-2010 and FY-2011 for similar PROJECT type work, and desired to follow the same course of action and respective participatory roles as were described in the ORIGINAL AGREEMENT in order to procure professional engineering services and a follow-on construction contract for planned and emergency flood control facility repairs prior to and during the storm seasons of 2010 and 2011; and

4. **WHEREAS**, the CITY and AMAFCA executed the FIRST AMENDMENT to the ORIGINAL AGREEMENT to perform said work prior to and during the storm seasons of 2010 and 2011; and

5. **WHEREAS,** the CITY and AMAFCA have funding programmed for FY-2012 and FY-2013 for similar PROJECT type work, and desire to follow the same course of action and respective participatory roles as were described in the ORIGINAL AGREEMENT and the FIRST AMENDMENT in order to procure professional engineering services and a follow-on construction contract in order to allow for planned and emergency flood control facility repairs prior to and during the storm seasons of 2012 and 2013.

NOW THEREFORE, AMAFCA and the CITY hereby agree to amend the ORIGINAL AGREEMENT and FIRST AMENDMENT as follows:

In Section One of the FIRST AMENDMENT, Purpose of Agreement:

Delete paragraph 1.1 in its entirety and replace with the following:

1.1 Define responsibilities between the PARTIES for the funding of design, construction, and construction management services for the third phase of an area-wide maintenance and emergency repair contract for surface flood control structures, herein known as the PROJECT.

Delete paragraph 1.3 in its entirety and replace with the following:

1.3 Continue to use AMAFCA as the fiscal agent to procure and administer a professional engineering services contract to provide design and construction engineering services as required to design, bid, award and administer a construction contract to provide routine maintenance and emergency flood control facility repair work acceptable to the PARTIES prior to and during the storm seasons of 2012 and 2013.

Delete paragraph 1.4 in its entirety and replace with the following:

1.4 Continue to use AMAFCA as the fiscal agent to procure and administer the construction contract for the PROJECT, with the provision that the construction contract will remain open through November 2013, in order to allow for planned and emergency flood control facility repairs prior to and during the storm seasons of 2012 and 2013.

In Section Three of the ORIGINAL AGREEMENT:

Delete paragraph 3.3 in its entirety and replace with the following:

3.3 Provide at least one Professional Engineer from CITY staff to participate and assist in the identification and prioritization of CITY maintenance and repair work to be included in the contract documents. This maintenance and repair work is expected to total approximately $150,000.00 in construction costs. This work will be included within the "CITY Bid Lot" of the contract documents. This maintenance and repair work may be increased in scope and quantity depending on the CITY's availability of further funding.

In Section Four of the ORIGINAL AGREEMENT:

Add the following Paragraph 4.11

4.11 That any CITY or AMAFCA funding remaining in the PROJECT ACCOUNT shall remain in the PROJECT ACCOUNT and be made available for the PROJECT. The PARTIES further recognize that the PROJECT ACCOUNT has been invested in the State of New Mexico Local Government Investment Pool ("LGIP") and effective March 4, 2009, based on balances in the PROJECT ACCOUNT on September 15, 2009, a portion of such remaining funds has been set aside in the LGIP Reserve Contingency Fund, and

currently is not available for withdrawal. Some disbursements of the LGIP Reserve Contingency Fund have been made since the FIRST AMENDMENT. As of November 10, 2011, the CITY's total balance in the PROJECT ACCOUNT was $115,464.64, of which $350.47 is set aside in the LGIP Reserve Contingency Fund. As of November 10, 2011, AMAFCA's total balance in the PROJECT ACCOUNT was $19,918.19, of which $1,774.28 is set aside in the LGIP Reserve Contingency Fund. As further distributions are made by LGIP, the amount reserved in the LGIP Reserve Contingency Fund amount will be decreased accordingly, with the same amount then made available for PROJECT costs. Both PARTIES further recognize that the amounts reserved within the LGIP Reserve Contingency Fund may not be disbursed in a timely manner, or disbursed at all, by LGIP.

The terms and conditions of the ORIGINAL AGREEMENT and FIRST AMENDMENT will remain unchanged and will continue in full force and effect unless there is a conflict between the terms and conditions of this SECOND AMENDMENT, and the terms and conditions of the ORIGINAL AGREEMENT and/or FIRST AMENDMENT in which case the terms and conditions of the SECOND AMENDMENT will control.

IN WITNESS WHEREOF, the undersigned have caused this FIRST AMENDMENT to be executed as of the day and year set forth above.

Albuquerque Metropolitan Arroyo Flood Control Authority

By: Danny Hernandez, Chair
Board of Directors

Attest:

Bruce M. Thomson, Secretary-Treasurer,
Board of Directors

Date: 12/27/11

SECOND AMENDMENT TO
"AGREEMENT FOR DESIGN, CONSTRUCTION AND
CONSTRUCTION ENGINEERING SERVICES FORAGENCY
AND AREA-WIDE FLOOD CONTROL MAINTENANCE CONTRACT"

City of Albuquerque

Robert J. Perry
Chief Administrative Officer

12/14/11
Date

Michael Riordan, P.E.
Director, Department of Municipal Development

12/15/11
Date

Reviewed as to Form:

City Attorney

12/14/11
Date

Attest:

City Clerk

1/10/2012
Date

THIRD AMENDMENT TO
"AGREEMENT FOR DESIGN, CONSTRUCTION AND
CONSTRUCTION ENGINEERING SERVICES FORAGENCY
AND AREA-WIDE FLOOD CONTROL MAINTENANCE CONTRACT"

THIS THIRD AMENDMENT to Agreement for Design, Construction and Construction Engineering Services for Agency and Area-Wide Flood Control Maintenance Contract is made and entered into this 26 day of June, 2014, by and between the Albuquerque Metropolitan Arroyo Flood Control Authority, a political subdivision of the State of New Mexico (hereinafter referred to as "AMAFCA"), and the City of Albuquerque, a municipal corporation (hereinafter referred to as "the CITY").

RECITALS:

1. **WHEREAS**, on June 2, 2008, AMAFCA and the CITY entered into the agreement titled "Agreement for Design, Construction and Construction Engineering Services for Agency and Area-Wide Flood Control Maintenance Contract" ("ORIGINAL AGREEMENT") to define responsibilities for the funding, design, construction, construction management of the PROJECT and to establish a fiscal agent to procure and administer professional engineering services contract(s) and to procure and administer the construction contract(s) for the PROJECT; and

2. **WHEREAS**, the ORIGINAL AGREEMENT provided for a construction contract that would remain open through September 2009, in order to allow for emergency flood control facility repairs during the storm seasons of 2008 and 2009; and

3. **WHEREAS**, the CITY and AMAFCA had funding programmed for FY-2010 and FY-2011, and again in FY-2012 and FY-2013, for similar PROJECT type work, and desired to follow the same course of action and respective participatory roles as were described in the ORIGINAL AGREEMENT in order to procure professional engineering services and a follow-on construction contract for planned and emergency flood control facility repairs prior to and during the storm seasons of 2010 and 2011, as well as 2012 and 2013; and

4. **WHEREAS**, the CITY and AMAFCA executed the FIRST AMENDMENT to the ORIGINAL AGREEMENT to perform said work prior to and during the storm seasons of 2010 and 2011; and

5. **WHEREAS**, the CITY and AMAFCA executed the SECOND AMENDMENT to the ORIGINAL AGREEMENT to perform said work prior to and during the storm seasons of 2012 and 2013; and

6. **WHEREAS,** the CITY and AMAFCA had funding for FY 2013 and FY 2014 for similar PROJECT type work, and desired to follow the same course of action and respective participatory roles as were described in the ORIGINAL AGREEEMENT, the FIRST AMENDMENT and the SECOND AMENDMENT in order to procure professional engineering services and a follow-on construction contract in order to allow for planned and emergency flood control facility repairs prior to and during the storm seasons of 2013 and 2014; and

7. **WHEREAS,** The CITY had additional funding of $325,000.00 at the end of FY 2013 which allowed for additional maintenance and repair work and which was increased in scope and quantity due to that funding for the emergency work during the summer of 2013 and for work on the Agency and Area-Wide Flood Control Maintenance Contract 2013-2014; and

8. **WHEREAS,** The CITY and AMAFCA have funding programmed for FY 2014 and 2015 for similar PROJECT type work, and desire to follow the same course of action and respective participatory roles as were described in the ORIGINAL AGREEMENT, the FIRST AMENDMENT and the SECOND AMENDMENT in order to procure professional engineering services and a follow-on construction contract in order to allow for planned and emergency flood control facility repairs prior to and during the storm seasons of 2014 and 2015; and

9. **WHEREAS,** The CITY and AMAFCA have found the agreement to be of great value to the citizens of Albuquerque and the respective agencies and, if available funding is identified, wish to continue the agreement without having to amend for additional future years.

NOW THEREFORE, AMAFCA and the CITY hereby agree to amend the ORIGINAL AGREEMENT, FIRST AMENDMENT and SECOND AMENDMENT as follows:

In Section One of the ORIGINAL AGREEMENT, Purpose of Agreement:

Delete paragraph 1.1 in its entirety and replace with the following:

1.1 Define responsibilities between the PARTIES for the funding of design, construction, and construction management services for the fourth and future phases of the area-wide maintenance and emergency repair contract for surface flood control structures, herein known as the PROJECT.

Delete paragraph 1.3 in its entirety and replace with the following:

1.3 Continue to use AMAFCA as the fiscal agent to procure and administer a professional engineering services contract to provide design and construction engineering services as required to design, bid, award and administer a construction contract to provide routine maintenance and emergency flood control facility repair work acceptable to the PARTIES prior to and during the storm seasons of 2014 and future years as directed by the COA Project Manager and as funding becomes available.

Delete paragraph 1.4 in its entirety and replace with the following:

1.4 Continue to use AMAFCA as the fiscal agent to procure and administer the construction contract for the PROJECT, with the provision that the construction contract will remain open at

least until November 2014, in order to allow for planned and emergency flood control facility repairs prior to and during the storm season of 2014 and future years as directed by the City Project Manager and as funding becomes available.

In Section Three of the ORIGINAL AGREEMENT:

Delete paragraph 3.3 in its entirety and replace with the following:

3.3 Provide at least one Professional Engineer, acting as the CITY Project Manager, from CITY staff to participate and assist in the identification and prioritization of CITY maintenance and repair work to be included in the contract documents. This maintenance and repair work is expected to total approximately $300,000.00 in design and construction costs for FY15. This work will be included within the "CITY Bid Lot" of the contract documents. This maintenance and repair work may be increased in scope and quantity depending on the CITY's availability of further funding for FY15 and future years.

In Section Four of the ORIGINAL AGREEMENT:

Delete Paragraph 4.11 in its entirety, which was added to the ORIGINAL AGREEMENT by the SECOND AMENDMENT, and replace with the following

4.11 That any CITY or AMAFCA funding remaining in the PROJECT ACCOUNT shall remain in the PROJECT ACCOUNT and be made available for the PROJECT. The PARTIES further recognize that the PROJECT ACCOUNT has been invested in the State of New Mexico Local Government Investment Pool ("LGIP") and effective March 4, 2009, based on balances in the PROJECT ACCOUNT on September 15, 2009, a portion of such remaining funds has been set aside in the LGIP Reserve Contingency Fund, and currently is not available for withdrawal. Some disbursements of the LGIP Reserve Contingency Fund have been made since the FIRST AMENDMENT and SECOND

AMENDMENT. As of June 12, 2014, the CITY's total balance in the PROJECT ACCOUNT was $153,585.62 and is now invested at Wells Fargo. The CITY LGIP Reserve Contingency Fund amount is $75.09 and is set aside in the LGIP Reserve Contingency Fund. As of June 12, 2014, AMAFCA's total balance in the PROJECT ACCOUNT was $401,386.51, and is now invested at Wells Fargo. The AMAFCA LGIP Reserve Contingency Fund amount is $384.19 and is set aside in the LGIP Reserve Contingency Fund. As further distributions are made by LGIP, the amount reserved in the LGIP Reserve Contingency Fund amount will be decreased accordingly, with the same amount then made available for PROJECT costs. Both PARTIES further recognize that the amounts reserved within the LGIP Reserve Contingency Fund may not be disbursed in a timely manner, or disbursed at all, by LGIP.

Add the following Paragraph 4.12

4.12 This agreement may be terminated by either party upon thirty (30) days written notice; however, the CITY will be responsible for any task order that a notice to proceed has been issued and the work will be completed and paid for at the agreed upon rates. In no event shall AMAFCA or the CITY be liable for any work undertaken after notice of termination has been given by either party.

The terms and conditions of the ORIGINAL AGREEMENT, FIRST AMENDMENT and SECOND AMENDMENT will remain unchanged and will continue in full force and effect unless there is a conflict between the terms and conditions of this THIRD AMENDMENT, and the terms and conditions of the ORIGINAL AGREEMENT and/or FIRST AMENDMENT and/or the SECOND AMENDMENT, in which case the terms and conditions of the THIRD AMENDMENT will control.

IN WITNESS WHEREOF, the undersigned have caused this THIRD AMENDMENT to be executed as of the day and year set forth above.

THIRD AMENDMENT TO
"AGREEMENT FOR DESIGN, CONSTRUCTION AND
CONSTRUCTION ENGINEERING SERVICES FORAGENCY
AND AREA-WIDE FLOOD CONTROL MAINTENANCE CONTRACT"

Albuquerque Metropolitan Arroyo Flood Control Authority

By: Ronald D. Brown, Chair
Board of Directors

Attest:

Bruce M. Thomson, P.E., Secretary-Treasurer
Board of Directors

Date: 6/26/14

THIRD AMENDMENT TO
"AGREEMENT FOR DESIGN, CONSTRUCTION AND
CONSTRUCTION ENGINEERING SERVICES FORAGENCY
AND AREA-WIDE FLOOD CONTROL MAINTENANCE CONTRACT"

City of Albuquerque

Robert J. Perry
Chief Administrative Officer

6/25/14
Date

Michael Riordan, P.E.
Director, Department of Municipal Development

6.20.14
Date

Reviewed as to Form:

City Attorney

6/24/14
Date

Attest:
City Clerk

7/1/14
Date

APPENDIX E – GREEN INFRASTRUCTURE IMPLEMENTATION IN NEW MEXICO – FREQUENTLY ASKED QUESTIONS AND GUIDANCE FROM NMED AND OSE (NMED, 2017)

2017

Green Infrastructure Implementation in New Mexico

FREQUENTLY ASKED QUESTIONS AND GUIDANCE FROM NMED AND OSE

SARAH HOLCOMB (NMED), JOHN ROMERO (OSE), STEVE HUDDLESON (GWQB) AND NELLY SMITH (USEPA)

NEW MEXICO ENVIRONMENT DEPARTMENT |

Frequently Asked Questions (FAQs)
Green Infrastructure Implementation in New Mexico
March 2017

Background

Green Infrastructure, as defined by the U.S. Environmental Protection Agency (USEPA), is a cost-effective, resilient approach to managing wet weather impacts that provides many community benefits. Because uncontrolled stormwater discharge contributes to many negative water quality impacts, Congress amended the Clean Water Act in 1987 to add stormwater point source discharges to the National Pollutant Discharge Elimination System (NPDES) permitting universe.

In 2006, the U.S. Environmental Protection Agency (USEPA) commissioned the National Research Council to provide an overall review of the NPDES Stormwater Program. The NRC published the report titled "Urban Stormwater Management in the United States[1]" in 2009 to address their findings. The report addressed issues plaguing the stormwater program, and recommended ways to address dealing with stormwater discharges. One key suggestion the NRC made was to implement Green Infrastructure (GI) approaches in Municipal Separate Storm Sewer System (MS4) permits.

EPA decided to select three permitting pilots to implement several recommendations made in the Urban Stormwater Management report, including watershed-based permitting. One of those pilot permits was in the Middle Rio Grande (MRG)/Albuquerque area. During 2010-2014, EPA and NMED met regularly with potential permittees and other federal, state, regional and local agencies to provide input on the development of the permit.

On December 22, 2014, EPA announced issuance of the NPDES general permit for storm water discharges from MS4s located in the Middle Rio Grande watershed. The permit replaced both the individual NPDES permit NMS000101 issued on January 31, 2012, and the expired general permits NMR040000 and NMR04000I for discharges in this watershed area; combining coverage for regulated MS4s in the Albuquerque area into a single general permit. The permit was crafted to better address water quality and endangered species concerns within the watershed while accommodating and encouraging cooperative programs amongst permittees that could reduce compliance costs. The permit does not create a "new" permit obligation – it attempts to create a "better" option for a permit already required.

As the MRG entities began discussions about the new permit, it became apparent that water rights were going to be an important component of the implementation decisions surrounding GI approaches in New Mexico.

[1] http://www.nap.edu/catalog/12465.html

Frequently Asked Questions (FAQs)
Green Infrastructure Implementation in New Mexico
March 2017

Water in the desert is precious, from both a water quantity and a water quality perspective. The quantity side was recognized when the Rio Grande Compact was signed in 1938 between the states of Colorado, Texas and New Mexico, and the Country of Mexico, and approved by Congress. New Mexico is required to deliver a certain amount of water to the Texas state line each year, and depends on all sources of water to make those obligations.

New Mexico's water quantity law is based on prior appropriation – this is the legal principle that the first person in time to take a certain amount of water for beneficial use (agricultural, industrial or household) has the right to continue that same use of water for the same purpose. Users who would also like to use the water, may, if they do not negatively impair the rights of those first, or senior, users. First in time = first in right. Additionally, a user may not change the place or purpose of a Water Right such that it hinders another user's use.

USEPA's approach to Green Infrastructure was based on predevelopment hydrology – keeping the amount of water on site that historically would have infiltrated into the ground. This would prevent the resulting runoff from traveling over the ground to pick up pollutants on the way to the receiving waterbody. The technical details of this requirement are to require permittees to retain the 80th percentile storm event for redevelopment projects, and the 90th percentile event for new development projects. USEPA commissioned a contractor to determine the 80th and 90th percentile events for all urbanized areas across New Mexico, and the reports are available on the EPA website.[2]

The permit language contained in the Middle Rio Grande MS4 permit and the statewide small MS4 permit both contain references to compliance with New Mexico water quantity law, but through discussion, it was determined that further specific guidance was needed to address technical details of GI implementation to avoid violation of NM water quantity law. This guidance document intends to address those implementation issues to satisfy both water quantity and water quality obligations in the arid West. This is addressed in this document through Frequently Asked Questions (FAQs) and specific examples for ease of interpretation.

[2] https://www3.epa.gov/region6/water/npdes/sw/ms4/epa-nm_ms4_pre-development_hydrology_3-24-15_formatted_508.pdf (NM outside of the Albuquerque UA), https://www3.epa.gov/region6/water/npdes/sw/ms4/nfs_albuquerque_report_april2014_v2.pdf (Albuquerque UA)

Frequently Asked Questions (FAQs)
Green Infrastructure Implementation in New Mexico
March 2017

FAQs

1. **Does the MS4 permit require permittees to retain water?**

No, it does not. If the retention of water conflicts with applicable water quantity law, the permit does not specifically require permittees to retain or detain that water.

2. **Is rooftop harvesting of rain water permissible?**

Yes. The New Mexico Office of the State Engineer supports the wise and efficient use of the state's water resources; and, therefore, encourages the harvesting, collection and use of rainwater from residential and commercial roof surfaces for on-site landscape irrigation and other on-site domestic uses.

The collection of water harvested in this manner should not reduce the amount of runoff that would have occurred from the site in its natural, pre-development state. Harvested rainwater may not be appropriated for any other uses.

The OSE's Waterwise Guide to Rainwater Harvesting is included with this document as Appendix A.

3. **Is rain water harvesting (storage for future use) from parking lots allowed?**

Potentially. This would require a permit from the OSE to place this water to Beneficial Use.

4. **If a property lies within a basin that has no outfall to our river system, can rain water harvesting be allowed from all areas?**

In general, "Yes", but check with the local Water Rights District Office to be sure. A variance to the 96-hour Rule can be issued if the right circumstances exist and it can be proven that the water would not make it to a stream or river system. Rooftop harvesting of rain water is allowed statewide. Note: this water cannot be appropriated or put to any Beneficial Use without a permit from the OSE.

The "right circumstances" occur when water can be shown not to contribute to the local stream/river system. Ex: In the Las Cruces area where a Subdivision asked for a "Variance" to the 96-hour rule since the water would never make it to the Rio Grande anyway. We looked at it and determined that the water would not make it to the river so we granted the variance.

5. **If a property uses underground chambers for storm water control and infiltration, does the 96-hour rule apply?**

No, since the water is directly being infiltrated into the subsurface. Note: this water cannot be appropriated or put to any Beneficial Use without a permit from the OSE. Infiltration is not a beneficial use of water.

6. **What types of BMPs are acceptable to OSE for controlling water flow or infiltration?**

BMPs that retain water in ponds or impoundments should be minimized. The OSE cannot condone the use of practices that will promote evaporation because that is a water loss to the system.

Regarding flood control impoundments, water must be released within 96 hours, or a water right must be obtained to offset the effects to the stream or river system.

7. **If a permittee decides to infiltrate stormwater, what are the parameters that infiltration must be conducted within?**

Infiltration of stormwater in a manner that encourages the water to recharge underground aquifers is strongly encouraged by OSE. For example, if a regional facility managed by a flood control authority is used to infiltrate stormwater in an arroyo or other waterbody, these are areas that have a direct hydrological connection to underground resources. Infiltration in other areas will need to be evaluated by OSE. Typically, all such water must infiltrate within the 96-hour time frame.

Additionally, any other entity (not a flood control authority) that constructs a pond for flood control purposes also infiltrates water within 96 hours that has a direct hydrological connection to an aquifer or river. If infiltration is conducted within a pond or other structure that is not adjacent to an arroyo, OSE will need to evaluate the scenario.

   a. Is groundwater modeling required? Typically, no but some modeling could be required.

8. **How does Dam Safety play into this discussion?**

OSE has quoted regulations dealing with dam safety in this discussion for just that purpose – safety. If impoundments are being evaluated for flood control purposes (and this is unavoidable), any such structures also must follow the Dam Safety regulations.

9. **What are acceptable BMPs for water rights compliance?**

Basically, BMP's that don't retain or impound water for more than 96 hours and that are considered de-minimus in nature.

10. **If I cannot avoid installing a pond or other impoundment, what must I do?**

The New Mexico State Engineer must be included in the coordination if the proposed plan includes ponds and/or impoundments that will not drain in 96 hours. Individuals can ask the OSE for a variance or acquire water rights to offset the effects of the impoundment on the river. A variance to the 96-hour requirement altogether can be requested or a variance to increase the time allowed for infiltration can be requested. If a variance is requested either completely exempted or increasing the time frame for infiltration, we will require that the applicant submit proof to OSE in writing, making their case. OSE has issued several "Variance" requests in the past.

11. **How does pre-development hydrology factor in to water rights?**

OSE does not recognize pre-development hydrology in water rights allocation and appropriation. OSE depends on all water received to meet compact obligations across the state (both federal and interstate compacts). As stated above, rooftop capture and use of rainwater is permissible within pre-development hydrology limits.

12. **How does EPA envision compliance with the following statement in the MRG MS4 and sMS4 permits?**

    Where applicable New Mexico water law limits the ability to fully manage the design standard volume on site, measures to minimize increased discharge consistent with requirements under New Mexico water law must still be implemented.

Compliance with NM Water Law may require some form of Permit from the OSE. It is best if those individuals considering any impoundment of water contact the local Water Rights District Office to check what regulatory options they might have to be consistent with NM Water Law. Even if it is anticipated to release water within 96 hours, it should be a best practice to discuss options with the local OSE field office.

Examples:

Detention pond that drains within 96 hours**.**

Infiltration gallery that needs maintenance and thus backs up with water.

13. **It seems that municipalities should be able to keep the difference between historic (pre-development) runoff and developed runoff volumes. Why is it that they cannot?**

This would be considered an Appropriation of water in an already fully appropriated system.

Green Infrastructure Examples

This next page provides links to other agencies who have put together green infrastructure toolkits or documentation. The purpose of including these materials is to start a targeted discussion of BMP appropriateness and applicability in the arid Southwest, and specifically in New Mexico. NMED is forming a workgroup to compile information on specific efforts in New Mexico and plans to compile this data for a comprehensive update to this document soon.

Frequently Asked Questions (FAQs)
Green Infrastructure Implementation in New Mexico
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EPA's Toolkits and Information:

Region 9: https://www3.epa.gov/region9/water/lid/
Region 8: https://www.epa.gov/region8/green-infrastructure
EPA: https://www.epa.gov/npdes/stormwater-planning

New Mexico:

http://xeriscapenm.com/xeriscape/

http://xeriscapenm.com/wp-content/uploads/2016/11/2016-Arid-Lid-small.pdf

http://nmwatercollaborative.org/projects-2/parkinglotretrofit/

Arizona:

https://wrrc.arizona.edu/publications/water-harvesting/low-impact-development-toolkit

https://sustainability.asu.edu/sustainablecities/wp-content/.../Mesa-LID-Report.pdf

Virginia Tech:

https://vtechworks.lib.vt.edu/handle/10919/5534/browse (search for LID Fact Sheets)

Minnesota PCR:

https://www.pca.state.mn.us/water/stormwater-management-low-impact-development-and-green-infrastructure

Massachusetts:

http://www.mass.gov/envir/smart_growth_toolkit/pages/mod-lid.html

Texas:

http://www.texaslid.org/

Colorado:

http://www.casfm.org/stormwater_committee/LID-00.htm

www.law.du.edu/images/.../rmlui-sustainable-RMLUILowImpactDevelopment.pdf

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Example Scenarios for Implementation

Frequently Asked Questions (FAQs)
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Examples

1. Developer A is building a new commercial development. The MS4 permit states that the developer must manage water generated by the 90th percentile storm on site. Is this permissible under State Water Law?
    a. Yes, if it drains in 96 hours or a valid Water Right is attained and used to offset the effects to the river.
2. Developer B is planning to install an infiltration gallery at their new big box development in Albuquerque. They plan to collect rainwater from rooftops (up to the 90th percentile event – 0.61 inches), and route it to the infiltration gallery, underneath the parking lot. This development is not near an arroyo or the Rio Grande and it is uncertain how long the infiltrated water would take to reach an aquifer or a surface water body – is this infiltration practice ok?
    a. Yes
3. Developer C is building a set of buildings in the Farmington and Las Cruces areas, taking advantage of the ability to redevelop lots that were recently acquired by their company. What are the specific compact obligations that the developer must keep in mind in each area?
    a. The Compact obligation for the Farmington area is the Colorado River Compact on the San Juan and Animas/La Plata Rivers and the Rio Grande Compact for the Las Cruces area. If in both these areas the retention of water will take place and the time for this will exceed 96 hours they should contact the local District Office to discuss options.
4. Developer D in Santa Fe is planning to install pervious pavement in their parking lot to comply with the small MS4 general permit to manage the 80th percentile storm event on site. The engineer has looked at groundwater models and determined that infiltrated water would eventually make its way to one of the arroyos tributary to the Santa Fe River. Is this permissible in accordance with state water quantity law?
    a. Yes

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Guidance to Implement Post- Construction Requirements under the 2014 EPA MRG MS4 Permit

Frequently Asked Questions (FAQs)
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Menu of Some GI/LID Practices Suitable in Arid and Semi-Arid Conditions

Note: It is recommended that anyone wishing to implement the below examples contact the local OSE/Water Rights District Office to check with them before any decisions are made.

Table 1. Examples of BMPs for Traditional MS4s (e.g., cities and counties)

Menu of BMPs (GI/LID)	Benefits	Water Law Evaluation - OSE Permit Evaluation
Rainwater Harvesting Systems that collect and store rainfall for later use, slowing and reducing the volume of runoff. NM Site – Example: SSCAFCA Office Building.	This can be especially important in arid regions to reduce demands on increasingly limited water supplies.	None
Rain Gardens and Bioswales (bioretention or bioinfiltration cells.) Shallow, vegetated areas that collect and absorb runoff from rooftops, sidewalks, and streets using plants and soil. NM Site - Example: Bear Canyon Senior Center	Versatile, attractive features that can be installed in almost any unpaved space. In arid and semi-arid regions like NM, native plants are drought resistant and hearty. Thus they require little to no maintenance once they are installed. When used in public areas they can provide shade and aesthetic benefits. Rain gardens can meet public landscaping requirements as well as provide stormwater benefits.	None
Living roofs or Eco-roofs Roofs covered with plants that soak up and use rainwater.	They cool and insulate buildings, reducing energy use They are particularly cost effective where land values	None

NM Site – Example: UNM Pearl Hall roof	and traditional stormwater management costs are high.	
<u>Planter Boxes</u> Rain gardens that collect and absorb runoff from rooftops, sidewalks, parking lots, and streets. NM Site – Example:	They have vertical walls that are ideal for space-limited sites in dense urban areas and can be used to provide seating and attractive plantings.	None
<u>Permeable Pavements</u> Paved surfaces that let water soak into the ground, including pervious concrete, porous asphalt, and permeable interlocking pavers. NM Site Example: Open Space Visitor Center	They are particularly cost effective where land values are high and where flooding or icing is a problem.	None
<u>Green Streets</u> Permeable pavement, bioswales, planter boxes, and trees integrated into street designs to soak up and store stormwater. Green streets combine more than one feature to capture and treat stormwater. NM Site Example: NM 47 Peralta	In addition to provide stormwater management, it provides heat reduction and energy conservation.	None
<u>Green Parking</u> Permeable pavement, rain gardens, and bioswales	Besides collecting and absorbing stormwater, green parking can provide more	None

incorporated into parking lot stalls, lanes, and landscaping. NM Site Example: Fidelity Investments	shade and reduce the heat emitted by pavements	
<u>Land Conservation</u> Protecting open spaces and sensitive natural areas NM Site Example: Various SSCAFCA projects	Protecting open spaces and sensitive natural areas within and adjacent to a city can reduce stormwater while providing recreational opportunities for city residents. Natural areas that should be a focus of this effort include riparian areas, wetlands, and steep hillsides	None
<u>Urban Tree Canopy</u> NM Site Example:	Provide shade and help to slow traffic.	None
<u>Downspout Disconnection</u> Rerouting rooftop drain pipes to direct rainwater to permeable areas NM Site - Example:	Redirecting downspouts to a landscaped area is a way to help reduce demands on landscape irrigation.	None

Table 2. Example BMPs for non-traditional MS4s including flood Control Authorities and DOTs (linear MS4s)

Note: It is recommended that anyone wishing to implement the below examples contact the local OSE/Water Rights District Office to check with them before any decisions are made.

Menu of BMPs (GI/LID)	Benefits	Water Law Evaluation - OSE Permit Evaluation
Bioswales (bioretention or bioinfiltration cells.)	Since bioswales are long and often run alongside of the road they do not take up large amounts of space and	None

	can be used in urban, suburban, or rural settings. The vegetation in a bioswale filters the stormwater runoff and provides an attractive vegetated area	
<u>Land Conservation</u> Protecting open spaces and sensitive natural areas NM Site Example:	Protecting open spaces and sensitive natural areas within and adjacent to a city can reduce stormwater while providing recreational opportunities for city residents. Natural areas that should be a focus of this effort include riparian areas, wetlands, and steep hillsides	None
<u>Urban Tree Canopy</u> NM Site Example:	Provide shade and help to slow traffic.	None
Other: AMAFCA Strategy: Regional water quality facility to capture and treat stormwater runoff from projects. They can be combined and enhanced with GI/LID components.	Regional water quality structures can be used to collect trash and debris before discharging to receiving waters. They can provide an excellent opportunity to efficiently collect and subsequently remove collected sediment and trash.	

Notes:

- When LID and GI are implemented in a semi-arid climate, attention must be paid to that unique environment. With a dry climate and large temperature differences between summer and winter, native plants that are drought tolerant and low maintenance must be chosen that can withstand the harshness of the dry region.
- Green infrastructure in the semi-arid West can be specifically designed to address rapid freeze/thaw cycles, semi-arid conditions, and intermittent and unpredictable rainfall patterns.

Frequently Asked Questions (FAQs)
Green Infrastructure Implementation in New Mexico
March 2017

Potential Scenarios and Considerations to Implement the Stormwater Quality Design Standard Required in the Permit

1. Evaluation of Potential Scenarios: Using Table 1 and Table 2, permittees may evaluate potential scenarios by selecting individual BMPs or combinations of BMPs to meet the performance standard in Part I.D.5.b.(ii)(b). The following are some considerations to be included in this analysis:

    a. Permittees can use EPA predevelopment hydrology analysis (on site or neighborhood/sub-watershed scale) or may carry out their own analysis to mimic natural conditions (Options A or B in Part I.D.5.b.(ii)(b)).

    b. Passive rainwater management has been successfully implemented in arid and semi-arid conditions. Passive rainwater management refers to the design of developed sites to collect runoff generated by impervious areas and direct it to nearby landscaped areas. It has three components:
        - ✓ a catchment area that collects rainwater (e.g., roof, street, or parking lot)
        - ✓ a distribution system that connects the catchment to the receiving landscape area (e.g., gutters and downspouts
        - ✓ a receiving landscape area that can retain and infiltrate rainwater

    Permittees may evaluate passive rainwater management as an option to implement post-construction requirements.

    c. Evaluate all option:
        - ✓ Treat and release analysis.
        - ✓ Rain harvesting
        - ✓ Avoidance of creating impervious surfaces

    d. For the selected scenarios, calculate the volume of runoff that will be managed to mimic natural conditions (include site constrain and conditions).

        - ✓ New Development Sites
        - ✓ Redevelopment Sites

2. Evaluate “Alternative Compliance for Infeasibility due to Site Constrains” under Part I.D.5.b.(v).

"When a Permittee determines a project applicant has demonstrated infeasibility due to site constraints specified in Part I.D.5.b.(v) to manage the design standard volume specified in Part I.D.5.b.(ii).(b) or a portion of the design standard volume on-site, the permitee may evaluate mitigation options in Part I.D.5.b.(v) (f).

3. Evaluation of mitigation options in Part I.D.5.b.(v) (f).

    A. Off-site mitigation: Installation of green infrastructure features at another location.
    B. Ground Water Replenishment Project: Implementation of a project that has been determined to provide an opportunity to replenish regional ground water supplies at an offsite location.
    C. Payment in lieu: Contribute to a fund that is used for stormwater management projects elsewhere in the watershed.
    D. Other: In a situation where alternative options A through C above are not feasible and the permittee wants to establish another alternative option for projects, the permittee may submit to the EPA for approval, the alternative option that meets the standard. e.g. AMAFCA Strategy

Appendix A

Municipality	80th Percentile Event (in inches)	90th Percentile Event (in inches)
Farmington UA	0.4	0.53
Santa Fe UA	0.5	0.68
Los Alamos UA	0.53	0.69
Albuquerque UA	0.48	0.65
Los Lunas UA	0.48	0.71
Las Cruces UA	0.55	0.78
El Paso UA (in New Mexico)	0.54	0.82

Appendix A: OSE's Waterwise Rooftop Harvesting Guide

Rainwater Harvesting

SUPPLY FROM THE SKY



A PUBLICATION OF THE CITY OF ALBUQUERQUE

LETTER FROM THE MA YOR

Dear Neighbor,

On behalf of the City of Albuquerque, I am pleased and excited to present *Rainwater Harvesting: Supply from the Sky* . This guide was developed by the City's Water Conservation Office to assist city residents and businesses in the campaign to save water.

Achieving our community's ambitious water conservation goals will not come easily. Doing so will require that we as a community adopt a "water ethic," and that all of us make conservation part of our daily lives. I believe this guide can help in that regard because rainwater harvesting, by its very nature, reconnects people to the environment they live in. It teaches natural limits while showing that human ingenuity can stretch those limits through improvements in efficiency and overall water management. Indeed, rainwater harvesting is the perfect combination of supply-side and demand-side management techniques, increasing the supply of water while simultaneously promoting demand-side reductions. Perhaps most importantly, rainwater harvesting fosters an awareness of one's personal water use and of the amount of water available from rainfall alone. And, it's something anyone can do.

So read this guide, share it with your friends and neighbors, and let us know what you think about it. But above all, use it to take advantage of the "supply from the sky." If each of us does just a little to act on the advice contained within these pages, we will have taken a big step toward ensuring an adequate water supply for our community today and in the future.

Sincerely,



Jim Baca, Mayor
City of Albuquerque



"Achieving the higher savings will require that the City effectively reach out and engage large segments of the public in a shared mission to save water. In that regard, Albuquerque will need to establish a water ethic that ripples throughout the entire community, one that can fuel the program to go above and beyond what has been done elsewhere."

From:
Water Conservation Rates and Strategy Analysis, March 1995

ACKNOWLEDGEMENTS

In large part this publication duplicates a rainwater harvesting guide published by the Arizona Department of Water Resources (ADWR) in September, 1998. Titled *Harvesting Rainwater for Landscape Use*, it was prepared by Patricia H. Waterfall, Extension Agent with the Pima County Cooperative Extension Low 4 Program, with editorial assistance from Joe Gell, Editor, Water Resources Research Center, University of Arizona; Dale Devitt, Professor, Soil and Water, University of Nevada/Reno; and Christina Bickelmann, Water Conservation Specialist, Arizona Department of Water Resources, Tucson Active Management Area. Silvia Rayces prepared the art-work. We are grateful to ADWR for allowing us to borrow freely from their publication.

This guide was revised to incorporate New Mexico-specific data and reformatted to accommodate the needs of the City of Albuquerque. Draft production was handled by Kevin Bean, of K.M. Bean Environmental Consulting; Doug Bennett, Albuquerque's Irrigation Conservation Manager; and Eva Khoury, an Intern with the Water Resources Division of the Albuquerque Public Works Department. Technical assistance was provided by Andrew Selby of the Mayor's Office, and by Kay Lang of the Albuquerque Environmental Health Department. Cooney, Watson & Associates handled final production. Final design was provided by Ken Wilson Design.

TO ORDER:

Albuquerque residents may order this document from the City's Water Conservation Office, P.O. Box 1293, Albuquerque, NM 87103. 505-768-3655 (phone), 505-768-3629 (fax), 768-2477 (TTY) or Relay NM 1-800-659-8331. (www address: http://www.cabq.gov/resources.)

If you live outside of Albuquerque, please contact the Office of the State Engineer, Water Use and Conservation Bureau, P.O. Box 25102, Santa Fe, N.M. 87504-5102. Orders may also be placed by phone at 1-800-WATERNM.

CITY OF ALBUQUERQUE
Jim Baca, *Mayor*

PUBLIC WORKS DEPARTMENT
Larry Blair, *Director*

WATER RESOURCES DIVISION
John Stomp, *Manager*
Jean Witherspoon, *Water Conservation Officer*

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Mike McEntee, *District 7*
Greg Payne, *District 8*
Michael Brasher, *District 9*



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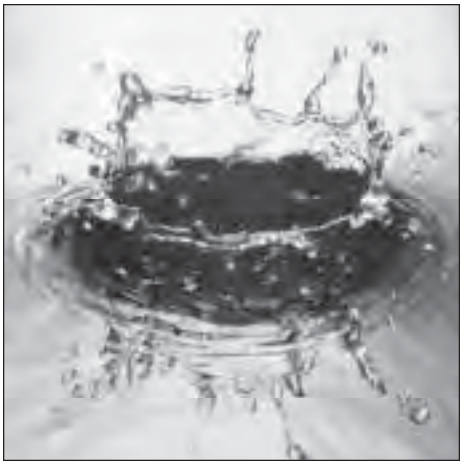
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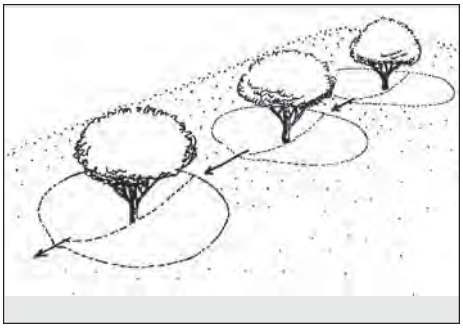
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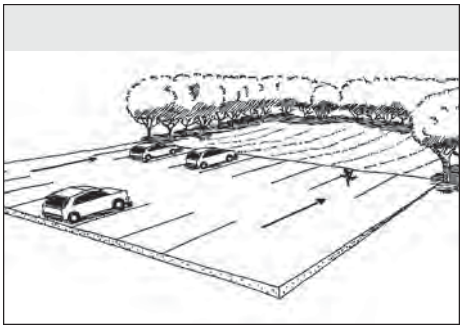
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INTRODUCTION



Series of water harvesting basins on a slope.



Parking lot draining into concave lawn area.

IMPOR TANT NOTES

1. This Guide applies to landscape uses of harvested water only. The use of rainwater for drinking is beyond the scope of this publication.

2. Before you start, check with your local building, zoning and environment departments to determine what plumbing requirements, height and local restrictions, neighborhood covenants, or other regulations or guidelines might apply to your project.

In the arid Southwest rainfall is scarce and frequently erratic. These conditions require that water be used as efficiently as possible, and that we take full advantage of what little rain we do receive to help meet our water needs.

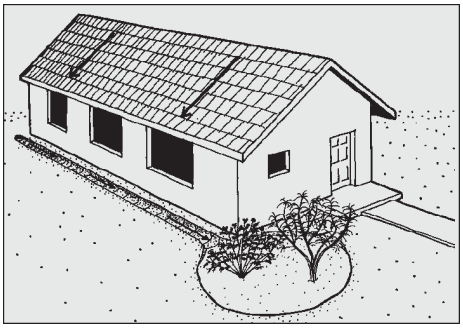
Rainwater harvesting is the capture, diversion, and storage of rainwater for landscape irrigation and other uses. Although rainwater can serve as a source of potable water, this guide focuses on landscape uses because they: 1) account for a significant percentage of total water demand; 2) are less essential and therefore more easily reduced than water used for other purposes; and 3) need not meet stringent drinking water standards. In many communities landscaping accounts for 30 to 50 percent of total water use. In Albuquerque, about 15 billion gallons of water a year are used for landscape irrigation.

Rainwater harvesting can reduce the use of drinking water for landscape irrigation. Coupled with the use of native and desert-adapted plants, rainwater harvesting is an effective water conservation tool because it provides "free" water that is not from the municipal supply. Water harvesting not only reduces dependence on groundwater and the amount of money spent on water, but it can reduce off-site flooding and erosion as well. If large amounts of water are held in highly permeable areas (areas where water penetrates the soil quickly and easily), some water may percolate to the water table.

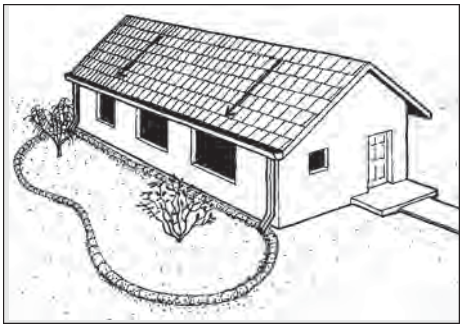
Rainwater is the best source of water for plants because it is free of salts and other minerals that can be harmful to root growth. When collected, rainwater percolates into the soil, forcing salts down and away from the root zone. This allows for greater root growth, which increases the drought tolerance of plants.

Rainwater harvesting can be incorporated into large-scale landscapes, such as parks, schools, commercial sites, parking lots, and apartment complexes, as well as small-scale residential landscapes. The limitations of water harvesting systems are few and are easily met by good planning and design. There are many water harvesting opportunities on developed sites, and even small yards can benefit from water harvesting. And, water harvesting can easily be planned into a new landscape during the design phase. So whether your landscape is large or small, the principles outlined in this manual apply.

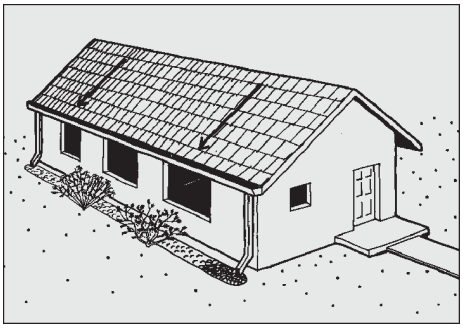
RAINWATER HARVESTING SYSTEM COMPONENTS



Simple system—roof catchment, channel, and planted landscape holding area.



Simple system—roof catchment, gutters, and bermed landscape holding area.



Simple system—roof catchment, gutters, downspouts, and french drain.

All rainwater harvesting systems have three main components: the supply (Rainfall), the demand (Plant Water Requirement), and the system that moves water to the plants (Water Collection and Distribution System). Water harvesting systems can be divided into Simple and Complex systems. In general, simple systems immediately distribute rainwater to planted areas, whereas complex systems store some or all of the rainwater in a container for later use.

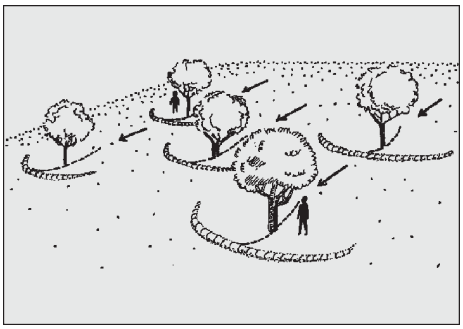
Rainfall. Rainwater "runoff" refers to rainwater that flows off a surface. If the surface is impermeable, runoff occurs immediately. If the surface is permeable, runoff will not occur until the surface is saturated. Runoff can be harvested (captured) and used immediately to water plants or stored for later use. The amount of rain received, its duration and intensity all affect how much water is available for harvesting. The timing of the rainfall is also important. If only one rainfall occurs, water percolates into the dry soil until it becomes saturated. If a second rainfall occurs soon after the first, more water may run off because the soil is already wet.

Plant Water Requirements. The type of plants selected, their age and size, and how closely together they are planted all affect how much water is required to maintain a healthy landscape. Because rainfall is scarce in arid regions, it is best to select plants with low water-use requirements and to limit planting densities to reduce overall water need. Native plants are well-adapted to seasonal, short-lived water supplies, and most desert-adapted plants can tolerate drought, making them good choices for landscape planting.

Water Collection and Distribution Systems. Most people can design a rainwater collection and distribution system to meet the needs of their existing site. Designing a system into new construction allows one to be more elaborate and thorough in capturing and routing rainwater. In the case of very simple collection and distribution systems, the payback period may be almost immediate.

SIMPLE RAINWATER HARVESTING SYSTEMS

A simple water harvesting system usually consists of a catchment, a distribution system, and a landscape holding area, which is a concave or planted area with an earthen berm or other border to retain water for immediate use by the plants. A good example of a simple water harvesting system is water dripping from the edge of a roof to a planted area or diversion channel located directly below the drip edge. Gravity moves the water to where it can be used. In some cases, small containers are used to hold water for later use.



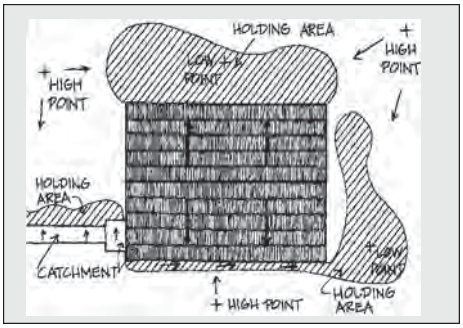
Crescent-shaped landscape holding areas on a slope.

Catchments. A catchment is any area from which water can be collected, which includes roofs, paved areas, and the soil surface. The best catchments have hard, smooth surfaces, such as concrete or metal roofing material. The amount of water harvested depends on the size, surface texture, and slope of the catchment area.

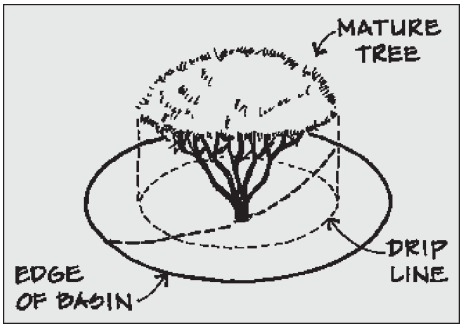
Distribution Systems. These systems connect catchments to the landscape holding areas. Distribution systems direct water flow, and can be simple or sophisticated. For example, gutters and downspouts direct roof water to a holding area, and gently sloped sidewalks distribute water to a planted area. Hillsides provide a perfect situation for moving water from a catchment to a holding area. Channels, ditches, and swales (shallow depressions) all can be used to direct water. (If desired, these features can be lined with plastic or some other impermeable material to increase their effectiveness and to eliminate infiltration in areas where it isn't wanted.) Elaborate open-channel distribution systems may require gates and diverters to direct water from one area to another. Standard or perforated pipes and drip irrigation systems can be designed to distribute water. Curb cutouts can channel street or parking lot water to planted areas. If gravity flow is not possible, a small pump may be required to move the water.

Landscape Holding Areas. These areas store water in the soil for direct use by the plants. Concave depressions planted with grass or plants serve as landscape holding areas. These areas contain water, increase water penetration into the soil, and reduce flooding and erosion. Depressed areas can be dug out, and the extra soil used to form a berm around the depression. With the addition of berms, moats, or soil terracing, flat areas also can hold water. One holding area or a series of holding areas can be designed to fill and then flow into adjacent holding areas through spillways (outlets for surplus water).

SIMPLE RAINW ATER HARVESTING SYSTEM DESIGN & CONSTRUCTION



Site plan showing drainage patterns and landscape holding areas (aerial view).



Tree dripline and basin edge.

FREE XERISCAPE GUIDE

The City of Albuquerque and the New Mexico Office of the State Engineer offer a free, full-color How-to Guide to Xeriscaping that contains many examples of low-water use, drought-tolerant plants. To request your copy, call 768-3655 (Albuquerque residents), or 1-800-WATERNM (all others).

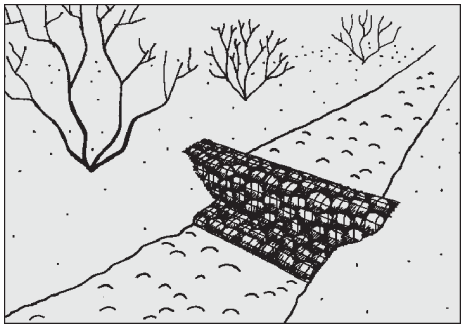
Step #1. Design the Collection and Distribution System.
By observing your landscape during a rain, you can locate the existing drainage patterns on your site. Use these drainage patterns and gravity flow to move water from catchments to planted areas.

If you are harvesting rainwater from a roof, extend downspouts to reach planted areas or provide a path, drainage, or hose to move the water where it is needed. Take advantage of existing sloped paving to catch water and redistribute it to planted areas. The placement and slope of new paving can be designed to increase runoff. If sidewalks, terraces, or driveways are not yet constructed, slope them 2 percent (1/4 inch per foot) toward planting areas and use the runoff for irrigation. Soil can also serve as a catchment by grading the surface to increase and direct runoff.

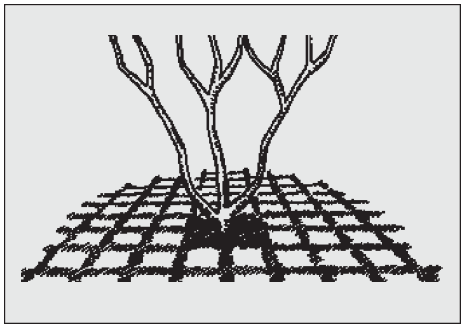
Step #2. Design Landscape Holding Areas.
Next, locate and size your landscape holding areas. Locate landscape depressions that can hold water or create new depressions where you want to locate plants. (To avoid structural or pest problems, locate holding areas at least 10 feet from any structures.) Rather than digging a basin around existing plants, construct level berms or moats on the surface to avoid damaging roots. Do not mound soil at the base of trees or other plants. Holding areas around existing plants should extend beyond the "drip line" to accommodate and encourage extensive root systems. Plants with a well-developed root system have a greater tolerance for drought because the roots have a larger area to find water. For new plantings, locate the plants at the upper edge of concave holding areas to encourage extensive rooting and to avoid extended flooding. For both existing and new landscapes you may want to connect several holding areas with spillways or channels to distribute water throughout the site.

Step #3. Select Plant Material.
Proper plant selection is a major factor in the success of a water harvesting project. Native and desert-adapted plants are usually the best choices. Some plants cannot survive in the actual water detention area if the soil is saturated for a long period of time, so careful plant selection for these low-lying areas is important. Select plants that can withstand prolonged drought and prolonged inundation, such as native or adapted plants. If you intend to plant in the bottom of large, deep basins, low-water use, native riparian trees may be the most appropriate plant choice.

SIMPLE RAINW ATER HARVESTING SYSTEM DESIGN AND CONSTRUCTION



Gabion in a stream bed.



Permeable paving blocks with grass.

STOP!

Call 1-800-321-ALERT (2537) before you dig to locate utility lines on your property. This will minimize the potential for line breaks, and could save your life.

To take advantage of water free falling from roof downspouts (canales), plant large rigid plants where the water falls or hang a large chain from the downspout to the ground to disperse and slow the water. Provide a basin to hold the water for the plants and also to slow it down. It may be necessary to place rocks or other hard material under the downspout to break the water's fall and prevent erosion. If you're working with a sloped site, large, connected, descending holding areas can be constructed for additional plants.

Seeding is another alternative for planting holding basins. Select seed mixes containing native or desert-adapted wildflowers, grasses, and herbaceous plants. Perennial grasses are particularly valuable for holding the soil and preventing erosion and soil loss.

Take care not to compact soils in landscape holding areas: this inhibits the movement of water through the soil. If the soil is compacted, loosen it by tilling. If the soil is too sandy and will not hold water for any length of time, you may wish to add composted organic matter to the soil to increase its moisture-holding potential. (This is not necessary with native or desert-adapted plants.) After planting, apply a 1.5 - 2 inch layer of mulch to reduce evaporation (but realize organic mulches may float).

HARVESTING WATER TO REDUCE FLOODING AND EROSION

Rain falling on impermeable surfaces generates runoff. In sufficient volumes runoff is a powerfully erosive force, scouring away bare soil and creating pockmarked roads. Because roofs, roads, and parking lots are impermeable surfaces, in urban areas even moderate rainfall produces large amounts of runoff. Controlling runoff to prevent flooding and erosion is a major public expense.

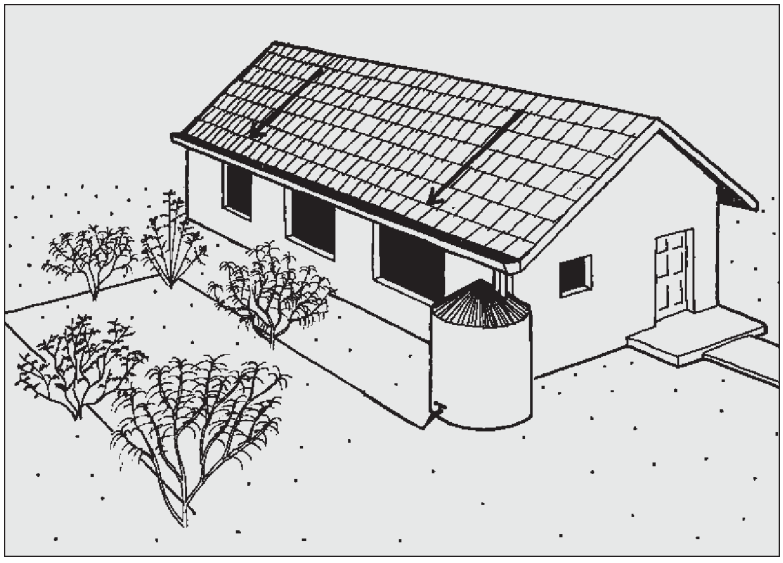
Water harvesting can reduce these problems. Crescent-shaped berms constructed around the base of a plant are useful for slowing and holding water on slopes. Gabions (a stationary grouping of large rocks encased in a wire mesh) are widely used to contain water and reduce erosion. French drains (holes or trenches filled with gravel) can also hold water for plant use. Permeable paving materials, such as gravel, crushed stone, and open or permeable paving blocks, stabilize soil on steep slopes and allow water to infiltrate into the soil to irrigate trees and other plants with large, extensive root systems. Another option on steep slopes is terrace grading to form stairstep-like shelves. By slowing runoff and allowing it to soak into the ground, rainwater harvesting can turn a problem into an asset.

COMPLEX RAINWATER HARVESTING SYSTEMS

Water harvesting cannot provide a completely reliable source of irrigation water because it depends on the weather, and the weather is not dependable. To maximize the benefits of rainwater harvesting, storage can be built into the system to provide water between rainfall events. New Mexico's rainy season, for example, usually begins in mid-summer and runs through the fall, with drier periods in between. During the summer "monsoons" a heavy rain may produce more water than is needed by a landscape. (Plants are well watered once their rootzones have been thoroughly wetted: at this point water may begin to run off or stand on the surface.) With a complex water harvesting system this excess water is stored for later use.

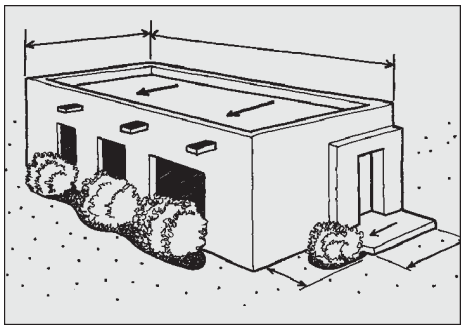
A frequently-asked question is whether a complex water harvesting system can collect and store enough water in an average year to provide sufficient irrigation for an entire landscape. The answer is yes, so long as the amount of water harvested (the supply) and the water needed for landscape irrigation (the demand) are in balance. Storage capacity plays a big role in this equation by making water available to plants in the dry seasons when rainfall alone is insufficient.

Rainwater harvesting systems that include storage result in both larger water savings and higher construction costs. These complex systems are more appropriate for larger facilities or for areas where municipal or other water supplies are not available, and they may require professional assistance to design and construct. With such a system, the cost of storage — which includes the storage container, excavation costs, pumps and wiring, as well as additional maintenance requirements — is a major consideration. The investment payback period may be several years, which means that one's personal commitment to a "water conservation ethic" may come into play in determining whether such an investment makes sense. For most people, the appropriate choice is to harvest less than the total landscape requirement. Another option is to reduce water demand by reducing planting areas or plant densities, or by replacing high-water use plants with medium or low-water use ones. This reduces the supply required and the space required to store it, and is, therefore, less expensive.

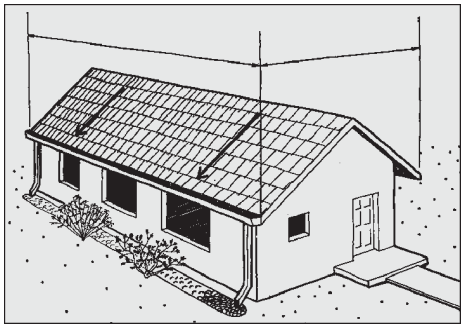


Complex water harvesting system with roof catchment, gutter, downspout, storage, and drip distribution system.

ELEMENTS OF A COMPLEX RAINWATER HARVESTING SYSTEM



Catchment area of flat roof = Length x width



Catchment area of sloped roof (both sides) = Length x width

Complex rainwater harvesting systems include catchments, conveyance systems (to connect catchments to storage containers), storage, and distribution systems (to direct water where it is needed). Each of these elements is discussed below.

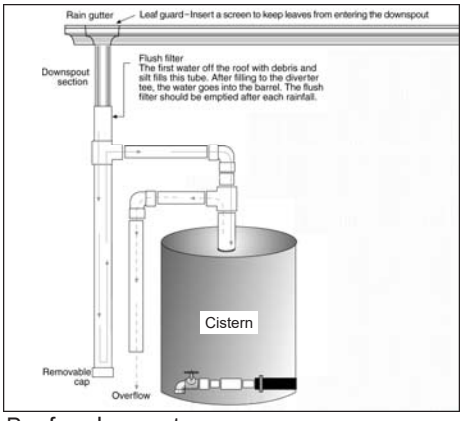
Catchments. The amount of water or "yield" that a catchment will provide depends on its size and surface texture. Concrete, asphalt, or brick paving and smooth-surfaced roofing materials provide high yields. Bare soil surfaces provide harvests of medium yield, with compacted clay soils yielding the most. Planted areas, such as grass or groundcover areas, offer the lowest yields because the plants hold the water longer, thereby allowing it to infiltrate into the soil. (This is not necessarily a problem, depending on whether you want to use the collected water directly or store it for later use.)

Conveyance Systems. These systems direct the water from the catchment area to the storage container. With a roof catchment system, either canales (from which water free-falls to a storage container) or gutters and downspouts are the means of conveyance. Gutters should be properly sized to collect as much rainfall as possible. **(See Appendix VI for guidelines on gutters and downspouts.)**

TABLE–1
ANNUAL APPROXIMATE SUPPLY FROM ROOF CATCHMENT

Inches/ Rainfall	Gallons/ Square Foot
0	0
1	0.6
2	1.3
3	1.9
4	2.5
5	3.1
6	3.7
7	4.4
8	5.0
9	5.6
10	6.2
11	6.8
12	7.5
13	8.1
14	8.7
15	9.3

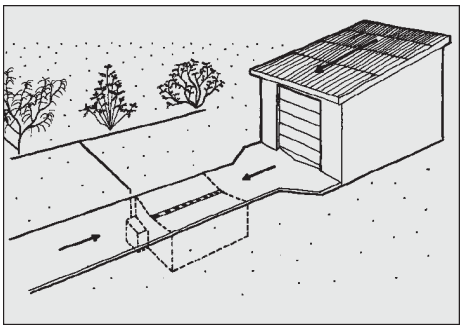
ELEMENTS OF A COMPLEX RAINWATER HARVESTING SYSTEM



Roofwasher system

TABLE–2
CALCULATING ROOFWASHER SYSTEM CAPACITY

Pipe Diameter
4 inches = 0.65 gallons/foot
6 inches = 1.47 gallons/foot
8 inches = 2.61 gallons/foot


Roof catchment with sloping driveway, french drain, and underground storage.

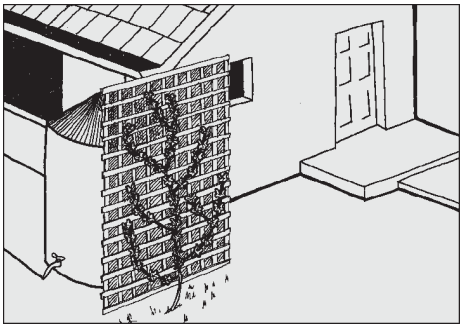
Storage. Storage allows full use of excess rainfall by making water available when it is needed. Before the water is stored, however, it should be filtered to remove particles and debris. The degree of filtration necessary depends on the size of the distribution tubing and emission devices (drip systems would require more and finer filtering than water distributed through a hose). Filters can be in-line or a leaf screen can be placed over the gutter at the top of the downspout. Always cover the storage container to prevent mosquito and algae growth and to keep out debris.

Many people divert the first part of the rainfall to eliminate debris from the harvested water. The initial rain "washes" debris off the roof; the later rainfall, which is free of debris and dust, is then collected and stored. The simplest roof-washing system consists of a standpipe and a gutter downspout located ahead of the cistern. The standpipe is usually 6 - 8 inch PVC equipped with a valve and cleanout at the bottom. Once the first part of the rainfall fills the standpipe, the rest flows to the downspout connected to the cistern. After the rainfall, the standpipe is drained in preparation for the next rain event. Roof-washing systems should be designed so that at least 10 gallons of water are diverted to the system for every 1,000 square feet of collection area. Several types of commercial roof washers are also available.

Storage containers can be located under or aboveground, and made of polyethylene, fiberglass, wood, concrete, or metal. Underground containers are more expensive due to the cost of soil excavation and removal. Pumping water out of these containers adds to their cost. Ease of maintenance should also be considered. Swimming pools, stock tanks, septic tanks, ferrocement culverts, concrete blocks, poured-in-place concrete, or building rocks can be used for underground storage.

Examples of aboveground containers include 55-gallon plastic or steel drums, barrels, tanks, cisterns, stock tanks, fiberglass fishponds, and swimming pools. Buildings or tanks made of concrete block, stone, plastic bags filled with sand, or rammed earth also can be used. Costs depend on the system, degree of filtration, and distance between the container and place of use. Look under "Tanks," "Feed Dealers," "Septic Tanks," or "Swimming Pools" in the Yellow Pages to locate storage containers. Salvaged 55-gallon drums may be available from local businesses, but should you choose to use them, take care to use only those drums that are free of any toxic residues.

ELEMENTS OF A COMPLEX RAINWATER HARVESTING SYSTEM



Vine used to screen storage tank.

STORAGE CONTAINER SAFETY

Storage units should be covered, secure from children, and clearly labeled as unfit for drinking. If containers are elevated, a strong foundation should be used. Containers should be opaque and, if possible, shielded from direct sunlight to discourage the growth of algae and bacteria. Regular inspection and maintenance (cleaning) are essential.

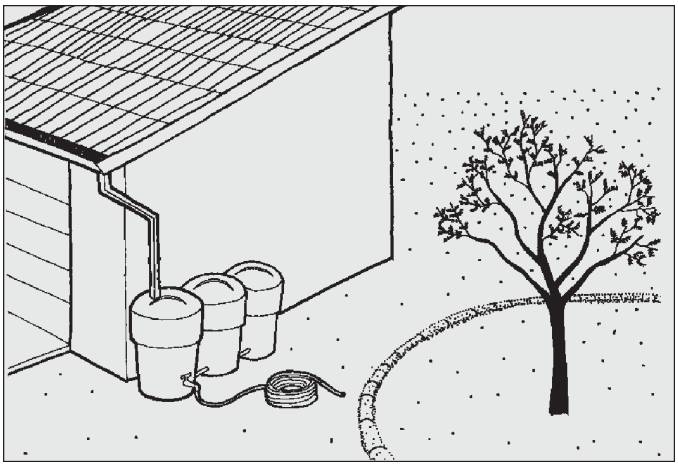
Locate storage near or at the end of downspouts. If storage is unsightly, it can be designed into the landscape in an unobtrusive place or hidden with a structure, screen, and/or plants. In all cases, storage should be located close to the area of use and placed at an elevated level to take advantage of gravity flow. Ideally, on a sloped lot the storage area is located at the high end of the property to facilitate gravity flow. Another option is to locate several smaller cisterns near where water is required, because they are easier to handle and camouflage. If the landscaped area is extensive, several tanks can be connected to increase storage capacity. In the event that rainfall exceeds storage capacity, alternative storage for the extra water must be found. A concave planted area is ideal because it allows rainwater to slowly percolate into the soil. Storage container inlets and overflow outlets should be the same size.

Distribution. The distribution system directs water from the storage container to landscaped areas. The distribution device can be a garden hose, constructed channels, pipes, perforated pipes, or a manual drip system. Gates and diverters can be used to control flow rate and direction. A manual or electric valve located near the bottom of the storage container can assist gravity-fed irrigation. In the absence of gravity flow, an electric pump hooked to a garden hose can be used. Distribution of water through an automatic drip irrigation system requires extra effort to work effectively. A pump will be required to provide enough pressure to operate a typical drip irrigation system.

To continue using a drip or other integrated distribution system in the event of a rainwater shortfall, and to avoid the need for dual systems, provisions should be made for adding water to your container or distribution system from an auxiliary source. Connection of the distribution system to a municipal or private water supply requires the use of an "air gap" or other approved backflow prevention device. If such a source is unavailable, ensure your pump will turn off automatically when there is no water in the tank. *These integrated distribution systems can be rather complex: check your local plumbing and building codes to ensure your system is in compliance.*

COMPLEX RAINWATER HARVESTING SYSTEM DESIGN & CONSTRUCTION

If you are designing a complex water harvesting system — one that includes storage to provide rainwater in between rainfall events — advance planning, coupled with a few simple calculations, will result in a more functional and efficient system. The steps involved in designing a complex water harvesting system include site analysis, calculation, design, and construction. If the project is a complicated one, either because of its size or because it includes numerous catchments and planting areas, divide the site into sub-drainage areas and repeat the following steps for each sub-area. As a final step, field-test the system.



Roof catchment with multiple storage cans connected to a hose adjacent to a landscape holding area.

Step #1: Site Analysis. Whether you are designing a new landscape or working with an existing one, draw your site and all the site elements to scale. Plot existing drainage flow patterns by observing your property during a rain. Show the direction of water flow with arrows, and indicate high and low areas on your plan. Look for catchments, such as paved areas, roof surfaces, and bare earth.

Next, identify areas that require irrigation and sites near those areas where above or underground storage can be located. Although the final design will depend on the outcome of your supply and demand calculations (see below), consider how you are going to move water from the catchment to the holding area or storage container. Rely on gravity to move water whenever you can. Consider too how you are going to move water through the site from one landscaped area to another. Again, if the site is too large or the system too complicated, divide the site into sub-drainage areas.

Step #2: Calculations. First, calculate the monthly Supply (rainfall harvest potential) and the monthly Demand (plant water requirement) for a year. Next, calculate the monthly Storage/Municipal Water Requirement.

Calculate Supply—The following equation for calculating supply will provide the amount of water (in gallons) that can be harvested from a catchment.

SUPPLY (in gallons) = Inches of Rainfall x .623 x Catchment Area (square feet) x Runoff Coefficient

CALCULATING SUPPLY

Multiply rainfall in inches **(see Appendix I)** by .623 to convert inches to gallons per square foot, and multiply the result by the area of catchment in square feet (ft^2). (For example, a 10' x 20' roof is 200 ft^2. For a sloped roof, measure the area covered by the entire roof, which is usually the length and width of the building.) Multiply this figure by the "runoff coefficient" **(see Appendix III)** to obtain the available supply. (The runoff coefficient is the percentage of total rainfall that can be harvested from a particular surface. The "High" number in the table corresponds to a less absorbent surface, and the "Low" number corresponds to a more absorbent surface.)

RAINFALL TABLES

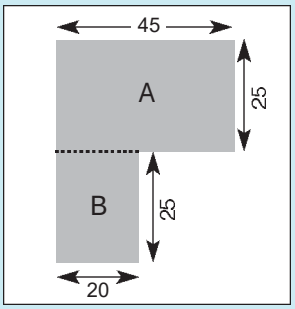
Monthly average rainfall amounts for 39 different locations in New Mexico are listed in Appendix I on page 18.

EXAMPLE 1: CALCULATING SUPPLY

Eva wants to build a rainwater harvesting system for her home in Albuquerque. From **Appendix I**, she enters the rainfall for each month on the Supply Worksheet (see sample on next page). Then she multiplies the inches of rainfall by 0.623 to convert inches to gallons per square foot.

Eva has an "L"-shaped house with asphalt shingle roofing that she plans to use as her primary catchment area. To simplify measurements, she divides the house into two rectangular sections, A and B. The eave-to-eave measurements for section A are 45' x 25', and for section B are 20' x 25':

Section A	45' x 25' =	1,125 ft^2
Section B	20' x 25' =	500 ft^2
Total		1,625 ft^2



Eva has 1,625 square feet of catchment area. She enters this value in Column C, then multiplies the gallons per SF in Column B by the square footage in Column C to determine the total gallons of rainfall each month. Since the asphalt shingle roof won't shed all of the rainfall, Eva finds the appropriate runoff coefficient (0.9) in **Appendix II** and enters it in Column E.

Multiplying Column D by Column E provides the net harvestable rainfall for the month.

SAMPLE SUPPLY WORKSHEET

	A	B	C	D	E	F
Follow the lettered instructions for each month.	From Appendix I enter the rainfall amount in inches for each month.	Multiply "A" by 0.623 to convert inches to gallons per square foot.	Enter the square footage of the catchment surface.	Multiply "B" by "C." This is the gross gallons of rainfall per month.	From Appendix II enter the runoff coefficient for your catchment surface.	Multiply "D" by "E." This is the total monthly yield of harvested water in gallons.
January	0.39	0.243	1,625	395	0.9	355
February	0.40	0.249	1,625	405	0.9	365
March	0.48	0.299	1,625	486	0.9	437
April	0.50	0.312	1,625	507	0.9	456
May	0.61	0.380	1,625	618	0.9	556
June	0.65	0.405	1,625	658	0.9	592
July	1.31	0.816	1,625	1,326	0.9	1,193
August	1.52	0.947	1,625	1,539	0.9	1,385
September	1.02	0.635	1,625	1,032	0.9	929
October	0.81	0.504	1,625	819	0.9	737
November	0.48	0.299	1,625	486	0.9	437
December	0.49	0.305	1,625	496	0.9	446
Annual Totals	8.66			8,767		7,888

SAMPLE DEMAND WORKSHEET (METHOD 1)

	A	B	C	D	E	F
Follow the lettered instructions for each month.	From Appendix III enter the ET amount in inches for each month.	From Appendix IV enter the plant demand according to its water needs.	Multiply "A" by "B" to obtain plant water needs in inches.	Multiply "C" by 0.623 to convert inches to gallons per square foot.	Enter the total square footage of landscaping.	Multiply "E" by "D." This is your total landscaping demand in gallons.
January	0.38	0.50	0.19	0.12	1,200	142
February	0.64	0.50	0.32	0.20	1,200	239
March	1.44	0.50	0.72	0.45	1,200	538
April	2.76	0.50	1.38	0.86	1,200	1,032
May	4.58	0.50	2.29	1.43	1,200	1,712
June	6.37	0.50	3.18	1.98	1,200	2,381
July	7.17	0.50	3.58	2.23	1,200	2,680
August	6.43	0.50	3.21	2.00	1,200	2,404
September	4.42	0.50	2.21	1.38	1,200	1,652
October	2.52	0.50	1.26	0.78	1,200	942
November	0.93	0.50	0.46	0.29	1,200	348
December	0.46	0.50	0.23	0.14	1,200	172
Annual Totals	38.1		23.75			14,242

SAMPLE

CALCULATING DEMAND

Calculate Demand – The demand equation tells how much water is required for a given landscaped area. Two methods are available for determining landscape demand: ***Method 1*** can be used for either new or established landscapes; ***Method 2*** can be used for established landscapes only. (HELPFUL HINT: When installing a new landscape, group plants with similar water requirements together. This makes it easier to calculate the amount of water needed to maintain those plants.)

CALCULATING DEMAND, METHOD 1 :
DEMAND = ET (in inches) x PLANT FACTOR x .623 x IRRIGATED AREA

This method for calculating demand is based on monthly evapotranspiration (ET) information. (**Appendix III** provides ET information for six different regions in New Mexico.) ET is multiplied by the "Plant Water Use Coefficient," which represents the percentage of ET needed by the plant. (**See Appendix IV** for information on plant coefficients. In the example that follows, the plants require approximately 50 percent of ET.) Irrigated area refers to how much area is planted. (Do not include unplanted portions of the landscape in your calculation of demand.)

EXAMPLE 2: CALCULATING DEMAND
New or Established Landscape (Method 1)

Eva's landscape has a small lawn area served by a sprinkler system and about 1,200 square feet of densely planted moderate water use trees, shrubs and flowers. To avoid the expense of installing an electric pump, Eva wants her rainwater project to operate by gravity flow. Since the sprinkler system cannot be operated by gravity flow, she decides to limit the use of her rainwater system to irrigation of her flowers, trees and shrubs.

1. Using the Demand Worksheet (see sample on previous page), Eva calculates the potential water needs (demand) for her rainwater-irrigated area. From **Appendix III**, she enters the evapotranspiration rate for the Albuquerque area into Column A.
2. Since Eva's landscape is primarily moderate water use plants, she uses a plant coefficient of 0.5 **(see Appendix IV)**. She enters this value in Column B.
3. She then multiplies A by B to get the estimated number of inches of water her plants will require. She enters the result in Column C.
4. She multiplies Column C by 0.623 to convert inches to gallons per square foot and enters the result in Column D.
5. In Column E, she enters the total square feet of landscaping she hopes to water with her rainwater system.
6. Lastly, she multiplies Column D by Column E to determine how much water her landscape will need for each month.

Now that the supply and demand have been calculated for each month, Eva can determine the maximum storage needs for her system. Although containers of any size will reduce Eva's dependence on municipal water, to fully capitalize on the available rainfall she should have enough storage to accommodate her cumulative water storage needs **(see Sample Worksheet on page 15 and sidebar on page 16).**

CALCULATING DEMAND

CALCULATING DEMAND, METHOD 2 :

This method estimates landscape water demand based on actual water use, as measured by your monthly water bills. With this method, we assume that most water used during the months of December through March is indoor use, and that very little landscape watering occurs. (If you irrigate your landscape more than occasionally during these months, use Method 1.) Most utilities measure water in ccf (1 ccf = 100 cubic feet. In Albuquerque, 1 unit of water = 1 ccf). To use this method, combine the water use amounts for December, January and February, and divide by 3 to determine your average indoor water use. In the worksheet that follows, the average winter monthly use is 9 ccf. Because we can assume that indoor use remains relatively stable throughout the year, simply subtract the average winter monthly use from each month's total use to obtain a rough estimate of monthly landscape water use. To convert ccf to gallons, multiply ccf by 748.

SAMPLE DEMAND WORKSHEET (METHOD 2)

Established Landscapes
Average Winter Consumption=9 CCF

Month	Monthly Use in CCF	Average Winter Use in CCF	Landscape Use in CCF	Convert CCF to Gallons	Landscape Use in Gallons
Jan	7	9	0	748	0
Feb	11	9	2	748	1,496
Mar	13	9	4	748	2,992
Apr	15	9	6	748	4,488
May	18	9	9	748	6,732
Jun	19	9	10	748	7,480
Jul	18	9	9	748	6,732
Aug	15	9	6	748	4,488
Sep	14	9	5	748	3,740
Oct	12	9	3	748	2,244
Nov	10	9	1	748	748
Dec	9	9	0	748	0

SAMPLE

Calculate Storage/Municipal Water Requirement. Once you've calculated the potential water supply from harvested water and your landscape water demand, use a "checkbook" method to determine your monthly harvested water balance and the amount of supplemental water (municipal or other source) needed to meet any shortfall in stored rainwater. The calculations in the sample worksheet that follows are based on the sample supply and demand calculations presented earlier (see the sample worksheets on page 12), which in turn are based on the supply and demand scenario presented in **Examples 1 and 2.** For the sake of simplicity, the calculations in this worksheet are performed on a monthly basis. In reality, the amount of water available fluctuates daily.

WHAT IS EVAPOTRANSPIRATION?

Evapotranspiration, usually referred to as "ET" for convenience, is the combined loss of water from the soil due to evaporation and plant transpiration. It is usually expressed in inches. To keep a plant healthy, water must be replenished in relation to the ET rate.

Weather and plant types are the primary factors that determine ET. On the weather side, temperature, wind, solar radiation, and humidity are the important variables.

ET usually is calculated for alfalfa, a heavy water use crop. Since most plants don't use as much water as alfalfa, the ET rate is multiplied by a plant coefficient that adjusts the ET rate for the types of plants you are growing.

CALCULATING CUMULATIVE STORAGE & MUNICIPAL USE

The "Storage" column in this completed worksheet is cumulative and refers to what is actually available in storage. A given month's storage is obtained by adding the previous month's storage to the current month's yield, minus the current month's demand. If the remainder is positive, it is placed in the Cumulative Storage column for the current month. This number is then added to the next month's yield to provide for the next month's demand. If the remainder is negative, that is, if the demand is greater than the supply of stored water, this number is placed in the Municipal Use column to indicate the amount of supplemental water needed to satisfy irrigation water demand for that month.

SAMPLE STORAGE/MUNICIPAL USE WORKSHEET

Month	Yield Gallons	Demand Storage	Cumulative Storage Gallons (yield-demand)	Municipal Use
Year 1				
Jan*	355	0	355	0
Feb*	365	0	720	0
Mar	437	538	619	0
Apr	456	1,032	43	0
May	556	1,712	0	1,113
Jun	592	2,381	0	1,789
Jul	1,193	2,680	0	1,487
Aug	1,385	2,404	0	1,019
Sep	929	1,652	0	723
Oct	737	942	0	205
Nov	437	348	89	0
Dec*	446	0	535	0
Year 2				
Jan*	355	0	890	0
Feb*	365	0	1,255	0
Mar	437	538	1,154	0
Apr	456	1,032	578	0
May	556	1,712	0	578
Jun	592	2,381	0	1,789
Jul	1,193	2,680	0	1,487
Aug	1,385	2,404	0	1,019
Sep	929	1,652	0	723
Oct	737	942	0	205
Nov	437	348	89	0
Dec*	446	0	535	0

SAMPLE

*No demand is shown for the months of December through February in this example because it assumes rain falling on the landscape will be sufficient to meet water demand for those months, and that all harvested water will be put into storage. (Though not reflected here, November and March should also experience less demand for the same reason.)

BALANCING SUPPLY AND DEMAND

As shown on the preceding page, Eva's landscape demand during the summer months will always require the use of a supplemental water supply. The supply of rainwater exceeds demand during the winter months when evapotranspiration rates are low, so this water can be saved for the "leaner" spring and early summer months.

Every site presents its own unique set of water supply and demand amounts. Some water harvesting systems may always provide enough harvested water to meet demand, while others may provide only part of the demand. Remember that the supply will fluctuate from year to year, depending on the weather and the month in which rainfall occurs. Demand may increase when the weather is warmer than normal, and will increase as the landscape ages and plants grow larger. Demand will also be greater during the period of time when new plants are getting established.

If, after determining the available supply and demand, it turns out that the supply of harvested water falls short of meeting irrigation demands, you can balance your water harvesting checkbook by either increasing the supply or by reducing the demand.

Options for increasing the supply include the following:

* Increase the catchment area or catchment (runoff) coefficient
* Use municipal or some other source of water

Options for reducing demand include the following:

* Reduce the amount of landscaped area
* Reduce the plant density
* Replace high-water use plants with lower-water use plants
* Use mulch to reduce surface evaporation

Step #3. Final design and construction—Use your site analysis information and your potential supply and demand calculations to size and locate catchment areas. If possible, size the catchment to accommodate the maximum landscape water requirement. If you cannot do this you may want to reduce plant water demand by either lowering planting density or by selecting lower water use plants. Roofs or shade structures can be designed or retrofitted to maximize the size of the catchment area. If you are planning a new landscape, create one that can live on the amount of water harvested from the existing roof catchment. This can be accomplished through careful plant selection and by controlling the number of plants used. For the most efficient use of harvested water, group plants with similar water requirements together. Remember that new plantings, even native plants, require special care and will need supplemental irrigation during the establishment period. This period can range from one to three years. (Use the supply and demand calculations to determine the amount of

CALCULATING YOUR MAXIMUM STORAGE REQUIREMENTS

To determine your maximum storage requirements, find the largest number in the cumulative storage column for year 2 on the preceeding page. In that example, February is the month with the most water in storage: 1,255 gallons. That figure represents the maximum amount of storage capacity required, which means that a container with approximately 1,300 gallons of storage capacity would suffice.

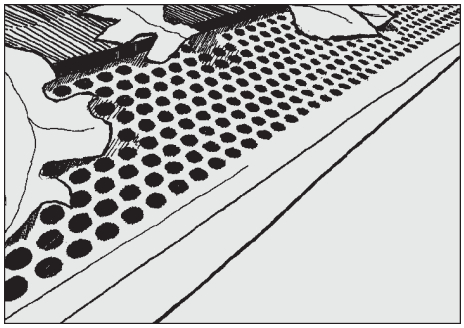
water needed for new plantings.) Use gutters and downspouts to convey the water from the roof to the storage area. (Consult **Appendix VI** for tips on selecting and installing gutters and downspouts.)

Size storage container(s) large enough to hold your calculated supply. Provide for distribution to all planted areas. Locate storage close to plants needing water and higher than the planted area to take advantage of gravity flow. Pipes, hoses, channels, and drip systems can distribute water where it is needed. If you do not have gravity flow or if you are distributing through a drip system, you will need to use a small pump to move the water through the lines. Select drip irrigation system filters with 200-mesh screens. The screens should be cleaned regularly.

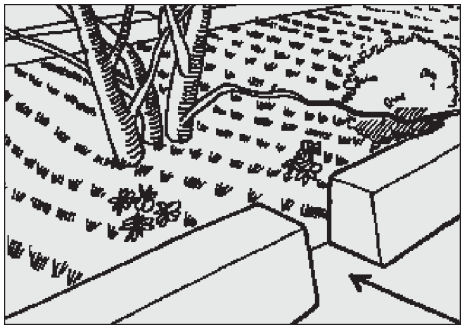
GRAVITY FLOW TIP BOX

GRAVITY FLOW EQUALS .433 POUNDS PER SQUARE INCH FOR EACH FOOT OF ELEVATION.

System Maintenance. Developing a water harvesting system is actually an ongoing process that can be improved and expanded over time. Once the initial construction is complete, it will be necessary to "field test" your system during rain events. Determine whether the water is moving where you want it, or whether you are losing water. Also determine if the holding areas are doing a good job of containing the water. Make changes to your system as required. As time goes on you may discover additional areas where water can be harvested or channeled. Water harvesting systems should be inspected before each rainy season — and ideally after every rain event — to keep the system operating at optimum performance.



Gutter leaf filter.



Parking lot curb cutout directing water into planted area.

TABLE–1
MAINTENANCE CHECKLIST

- Keep holding areas free of debris.
- Control and prevent erosion; block erosion trails.
- Clean and repair channels.
- Clean and repair dikes, berms, and moats.
- Keep gutters and downspouts free of debris.
- Flush debris from the bottom of storage containers.
- Clean and maintain filters, including drip filters.
- Expand watering basins as plants grow.
- **Monitor Water Use.**
  Once your system is operating, it's recommended that you monitor landscape water use so you'll know just how much water you're saving. If you've constructed water harvesting basins in an existing landscape, use last year's water bills to compare your pre-harvesting and post-harvesting water use. If you're adding new plants to a water harvesting area, the water savings begin as soon as they're in the ground, and the savings continue every time they're irrigated with harvested rainwater!

APPENDIX I

	*INCHES OF AVERAGE MONTHLY RAINFALL FOR NM TOWNS												
**NM Towns	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Abiquiu Dam	0.38	0.26	0.51	0.55	0.83	0.71	1.59	2.01	1.13	0.88	0.53	0.34	9.71
Alamogordo	0.73	0.52	0.46	0.32	0.50	0.83	2.13	2.13	1.68	1.05	0.54	0.81	11.68
Albuquerque	0.39	0.40	0.48	0.50	0.61	0.65	1.31	1.52	1.02	0.81	0.48	0.49	8.66
Animas	0.70	0.54	0.49	0.19	0.17	0.45	2.20	2.36	1.46	0.99	0.57	1.03	11.15
Belen	0.28	0.40	0.40	0.26	0.31	0.63	1.40	1.32	0.90	0.98	0.20	0.39	7.45
Bernalillo	0.43	0.49	0.56	0.43	0.58	0.55	1.47	1.50	0.83	0.95	0.44	0.47	8.68
Carlsbad	0.43	0.44	0.30	0.53	1.24	1.53	1.73	1.96	2.34	1.24	0.49	0.51	12.72
Clayton	0.27	0.40	0.65	1.21	2.39	1.91	2.64	2.31	1.68	1.09	0.50	0.38	15.44
Clines Corners	1.05	0.82	0.99	1.00	1.60	1.61	2.72	3.16	2.24	1.49	1.04	1.00	18.71
Clovis	0.43	0.43	0.59	1.04	2.10	2.60	2.62	2.96	2.16	1.61	0.56	0.60	17.71
Corrales	0.43	0.39	0.67	0.65	0.68	0.82	1.63	1.95	1.18	0.85	0.91	0.64	10.80
Crownpoint	0.52	0.51	0.49	0.50	0.36	0.67	2.06	1.89	0.85	0.85	0.46	0.61	9.75
Cuba	0.89	0.69	0.88	0.68	0.80	0.80	2.07	2.28	1.38	1.11	0.80	0.72	13.09
Deming	0.48	0.54	0.34	0.20	0.16	0.37	2.07	1.90	1.22	0.79	0.52	0.89	9.50
Española	0.47	0.43	0.59	0.58	0.89	0.75	1.50	1.94	1.00	0.90	0.57	0.50	10.12
Estancia	0.54	0.53	0.64	0.55	1.01	0.97	2.19	2.38	1.51	1.13	0.64	0.80	12.87
Farmington	0.58	0.50	0.55	0.51	0.36	0.46	0.80	1.07	0.83	1.11	0.49	0.62	7.89
Fort Sumner	0.39	0.40	0.44	0.59	1.16	1.47	2.42	2.81	1.80	1.37	0.55	0.49	13.90
Gallup	0.89	0.73	0.89	0.53	0.64	0.47	1.54	1.93	1.13	1.00	0.99	0.74	11.50
Grants	0.51	0.43	0.52	0.45	0.57	0.57	1.71	2.10	1.35	1.10	0.56	0.66	10.52
Hobbs	0.48	0.45	0.46	0.80	2.09	1.83	2.16	2.42	2.66	1.58	0.57	0.58	16.06
Jemez Springs	1.08	0.88	1.02	0.89	1.07	1.07	2.61	3.12	1.58	1.50	1.06	0.94	16.83
Las Cruces	0.52	0.33	0.23	0.21	0.33	0.66	1.46	2.27	1.31	0.82	0.46	0.76	9.17
Los Alamos	0.91	0.79	1.10	0.94	1.31	1.38	3.14	3.78	1.82	1.42	0.98	0.98	18.53
Los Lunas	0.35	0.42	0.46	0.44	0.49	0.57	1.23	1.76	1.21	1.06	0.46	0.53	8.98
Pecos	0.66	0.65	0.86	0.73	1.14	1.29	3.00	3.48	1.86	1.09	0.80	0.63	16.21
Raton	0.37	0.39	0.71	0.91	2.51	2.25	2.87	3.34	1.88	0.92	0.49	0.41	17.07
Roswell	0.42	0.46	0.29	0.60	1.33	1.63	2.01	2.48	2.16	1.06	0.51	0.59	13.52
Ruidoso	1.17	1.20	1.21	0.63	0.94	1.94	4.05	4.03	2.65	1.54	0.85	1.63	21.85
Sandia Park	3.10	1.24	1.44	0.93	1.14	1.12	3.00	3.00	1.83	1.40	1.31	1.20	20.44
Santa Fe	0.65	0.74	0.79	0.94	1.33	1.05	2.35	2.17	1.52	1.11	0.62	0.71	13.99
Shiprock	0.51	0.43	0.46	0.40	0.52	0.32	0.63	0.98	0.67	0.86	0.57	0.59	6.93
Silver City	1.25	0.85	0.84	0.55	0.21	0.58	2.78	2.48	1.91	1.21	0.49	1.07	14.17
Socorro	0.39	0.39	0.33	0.37	0.59	0.62	2.59	1.77	1.46	0.97	0.37	0.56	10.40
Taos	0.71	0.63	0.83	0.77	1.17	0.89	1.62	1.98	1.25	1.03	0.84	0.68	12.40
Tijeras	0.63	0.97	1.06	0.90	0.78	0.88	2.45	2.42	1.57	1.46	0.80	1.18	15.10
T or C	0.47	0.37	0.33	0.21	0.42	0.81	1.72	2.11	1.37	0.96	0.54	0.96	10.26
Tucumcari	0.26	0.47	0.39	0.87	1.49	1.78	3.30	2.40	1.46	0.94	0.50	0.27	14.11
Vaughn	0.44	0.44	0.35	0.51	0.92	1.60	1.99	2.56	1.41	0.87	0.41	0.38	11.87

* Data obtained from the Western Region Climate Center and the National Oceanic and Atmospheric Agency

** The average rainfall for more specific locations may vary from the averages shown here. In Albuquerque, for example, average rainfall ranges from 8.51 inches a year at the airport to 14.00 inches a year near the Sandia foothills.

APPENDIX II

RUNOFF COEFFICIENTS		
	HIGH	LOW
ROOF Metal, gravel, asphalt shingle, fiberglass, mineral paper	0.95	0.90
PAVING Concrete, asphalt	1.00	0.90
GRAVEL	0.70	0.25
SOIL Flat, bare Flat, with vegetation	0.75 0.60	0.20 0.10
LAWN Flat, sandy soil Flat, heavy soil	0.10 0.17	0.05 0.13

APPENDIX III

	*AVERAGE EVAPOTRANSPIR ATION FOR SELECTED AREAS IN NM												
Areas	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Northwestern Plateau (Gallup)	0	0.33	0.86	1.87	3.37	4.95	6.15	5.37	3.56	1.91	0.60	0	28.9
Northern Mtns. (Santa Fe)	0	0.30	0.68	1.56	2.82	4.26	5.05	4.51	3.02	1.63	0.52	0	24.3
Eastern Plains (Clovis)	0.35	0.55	1.27	2.53	4.31	6.23	7.00	6.30	4.26	2.42	0.91	0.45	36.5
Western Mtns. (Grants)	0.26	0.41	0.98	1.87	3.23	4.85	5.67	4.94	3.41	1.92	0.71	0.35	28.6
Central Valley (Albuquerque)	0.38	0.64	1.44	2.76	4.58	6.37	7.17	6.43	4.42	2.52	0.93	0.46	38.1
Central Highlands (Mountainair)	0.26	0.41	0.98	1.94	3.33	4.85	5.48	4.81	3.39	1.91	0.71	0.35	28.4
Southeastern Plains (Carlsbad)	0.52	0.78	1.68	3.10	4.95	6.79	7.33	6.66	4.69	2.84	1.17	0.66	41.1
Southern Desert (Las Cruces)	0.56	0.83	1.78	3.11	4.94	6.91	7.66	6.80	4.88	2.97	1.24	0.68	42.3

* Data obtained from the Toro Company, “Rainfall–Evapotranspiration Data,” Form #490-1358

APPENDIX IV

PLANT WATER USE COEFFICIENTS	
PLANT TYPE	PERCENTAGE
Low Water Use	0.20
Medium Water Use	0.50
High Water Use	0.75

The Plant Water Use Coefficient represents the water needs of a particular plant relative to the rate of evapotranspiration (ET). Thus a low-water use plant requires only 20 percent of ET, but a high-water use plant requires 75 percent of ET. New plantings of all types require additional water. Supplemental water must be supplied in areas where a plant's water use requirement (demand) exceeds the amount of water available from precipitation (supply). If you're unsure of a plant's water use requirements, consult the City of Albuquerque's Xeriscape Guide.

Low water use plants include grasses such as Blue Grama and trees such as Desert Willow.
Medium water use plants include grasses such as Buffalograss and trees such as Modesto Ash.
High water use plants include grasses such as Kentucky Bluegrass and trees such as Globe Willow.



Demonstration Garden photo courtesy of Santa Fe Greenhouses, Santa Fe, New Mexico

APPENDIX V

WORKSHEET #1: SUPPLY CALCULA TIONS

	A	B	C	D	E	F
Follow the lettered instructions for each month.	From Appendix I enter the rainfall amount in inches for each month.	Multiply "A" by 0.623 to convert inches to gallons per square foot.	Enter the square footage of the catchment surface.	Multiply "B" by "C." This is the gross gallons of rainfall per month.	Enter the runoff coefficient for your catchment surface.	Multiply "D" by "E." This is the total monthly yield of harvested water in gallons.
Januar y						
Februar y						
March						
April						
May						
June						
July						
August						
September						
October						
November						
December						
Totals						

WORKSHEET #2: DEMAND CALCULATIONS (METHOD 1)

	A	B	C	D	E	F
Follow the lettered instructions for each month.	From Appendix IV enter the ET amount in inches for each month.	From Appendix V enter the plant demand according to its water needs.	Multiply "A" by "B" to obtain plant water needs in inches.	Multiply "C" by 0.623 to convert inches to gallons per square foot.	Enter the total square footage of landscaping.	Multiply "E" by "D." This is your total landscaping demand in gallons.
Januar y						
Februar y						
March						
April						
May						
June						
July						
August						
September						
October						
November						
December						
Totals						

WORKSHEET #3:
DEMAND CALCULA TIONS
(METHOD 2)

Month	Monthly Use in CCF	Average Winter Use in CCF	Landscape Use in CCF	Convert CCF to Gallons	Landscape Use in Gallons
Jan					
Feb					
Mar					
Apr					
May					
Jun					
Jul					
Aug					
Sep					
Oct					
Nov					
Dec					

WORKSHEET #4:
STORAGE/MUNICIP AL USE
CALCUL ATIONS

Month	Yield Gallons	Demand Storage	Cumulative Storage Gallons (yield-demand)	Municipal Use
Year 1 Jan				
Feb				
Mar				
Apr				
May				
Jun				
Jul				
Aug				
Sep				
Oct				
Nov				
Dec				
Year 2 Jan				
Feb				
Mar				
Apr				
May				
Jun				
Jul				
Aug				
Sep				
Oct				
Nov				
Dec				

APPENDIX VI

GUIDELINES FOR GUTTERS AND DOWNSPOUTS

Gutters and downspouts are key components of the system for distributing rainwater to plants. They should be properly sized and durable, but they should also be attractive and well-suited to the building they're used on.

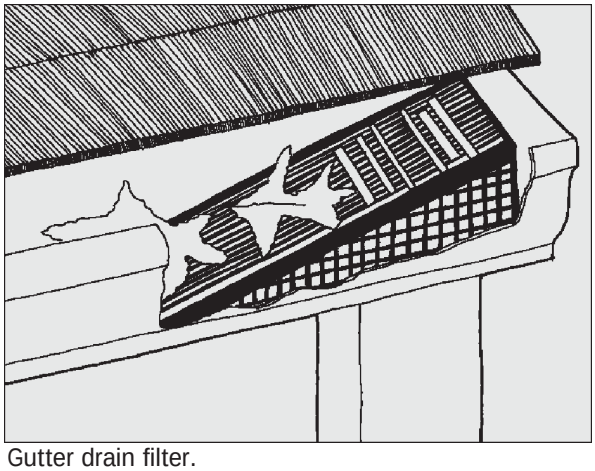
The following are general guidelines for the use of gutters and downspouts. Particular applications may vary, depending on the type of gutter selected and any special considerations, such as snow load or roof type. Consult a company that specializes in gutter design and installation for more information.

GUTTERS

- Select gutters that are at least 5 inches wide.
- Select galvanized steel (29-gauge minimum) or aluminum (.025-inch minimum) gutters.
- To enhance flow, slope sectional gutters 1/16 of an inch per 1 foot of gutter; slope seamless gutters 1/16 of an inch per 10 feet.
- If a straight run of gutter exceeds 40 feet, use an expansion joint at the connection.
- Keep the front of the gutter 1/2 inch lower than the back.
- Provide gutter hangers at least every 3 feet. Space hangers every 1 foot in areas of heavy snow load.
- Select elbows in 45, 60, 75, or 90-degree sizes.

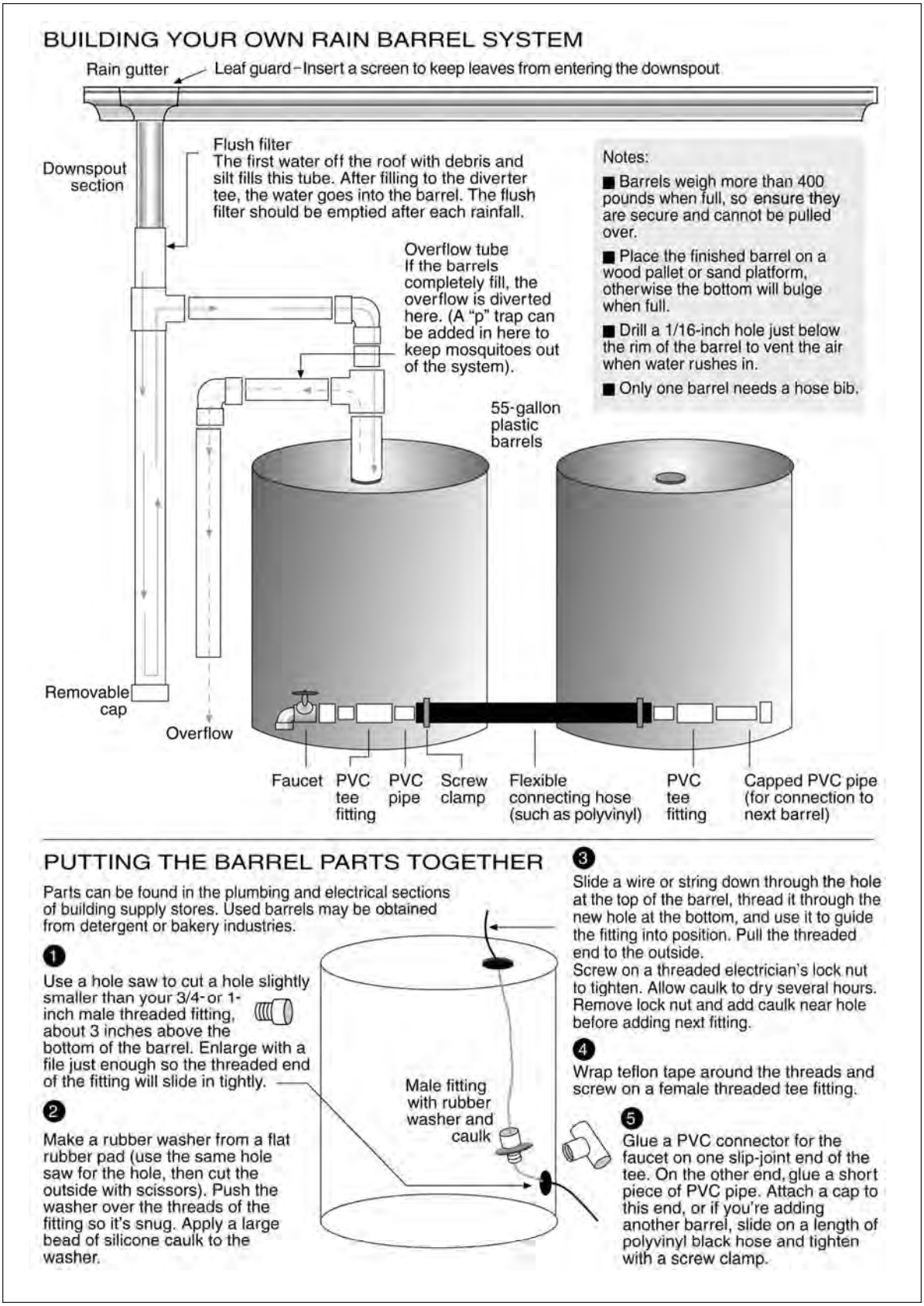
DOWNSPOUTS

- Space downspouts from 20 to 50 feet apart.
- Provide 1 square inch of downspout area for every 100 square feet of roof area. A 2-inch by 3-inch downspout will accommodate 600 to 700 square feet; a 3-inch by 4-inch downspout will accommodate up to 1,200 square feet.
- Do not exceed 45-degree angle bends.
- Select downspouts in configurations—square, round, and corrugated round, depending on your needs. Both gutters and downspouts come in a variety of maintenance-free finishes.
- Use 4-inch diameter pipe to convey water to the storage container or filter.



Gutter drain filter.

APPENDIX VII HOW TO BUILD A R AINBARREL



Source: Albuquerque Journal, June 26, 1999 Carol Cooperrider Used with Permission

APPENDIX VIII

WHERE TO GO FOR MORE INFORMATION

PUBLICATIONS

- *Introduction to Permaculture*, by Bill Mollison. Tagari Publications, 1988.
- *The Negev—The Challenge of a Desert, Second Edition*, by Michael Evenari, Leslie Shanan, and Naphtali Tadmor. Harvard Press, 1982.
- "Water Harvesting Traditions in the Desert Southwest," by Joel Glansburg, in the *Permaculture Drylands Journal*, #30, pp. 25-27. Permaculture Institute, USA, Summer 1998.
- "Water Conservation Through an Anasazi Gardening Technique," by Carleton S. White, David R. Dreesen, and Samual R. Loftin in the *New Mexico Journal of Science*, Volume 38, pp. 251-278. New Mexico Academy of Science, November 1998.
- *Ferrocement Water Tanks and Their Construction*, by S.B. Watt. Intermediate Technology Publications, 1978.
- "Constructing Quick and Inexpensive Water Cisterns for Zone One Use," by Dan Dorsey in the *Permaculture Drylands Journal* #24, pp. 8-10. Permaculture Institute, USA, December 1995.

OTHER RAINWATER HARVESTING GUIDES

- *Texas Guide to Rainwater Harvesting, Second Edition*, by Wendy Price Todd and Gail Vittori. Texas Water Development Board, 1997.
- *Harvesting Rainwater for Landscape Use*, by Patricia H. Waterfall. Arizona Department of Water Resources, 1998.

ORGANIZATIONS

American Rainwater Catchment Systems Association
P.O. Box 685283
Austin, TX 78768-5283

Center for Maximum Potential Building Systems
8604 F.M. 969
Austin, TX 78724
(512) 928-4786

Permaculture Institute, USA
Casa Las Barrancas Farm
P.O. Box 3702
Pojoaque, NM 87501

Green Builders Program, Home Builders Association of Central New Mexico
5931 Office Blvd. NE
Albuquerque, NM 87109
(505) 344-3294

NOTES

NOTES

City of Albuquerque
Jim Baca, Mayor

P.O. Box 1293
Albuquerque, NM 87103

Appendix B: NMED Ground Water Quality Bureau NOI Guidance for Green Infrastructure that may qualify as a Class V UIC Well

Appendix B – GWQB Permitting Requirements

There are three cases regarding stormwater runoff infiltration and determination of Class V well requirements.

1. NOT A CLASS V WELL, NO FORMS SUBMITTED
   a. Shallow surface infiltration such as a retention pond. This is an open water surface feature.
      i. Example: 15’ wide, 50’ long, 3’ deep pond with overtopping outlet
   b. Shallow trench backfilled with natural material. Note that the regulation states that if the infiltration trench is “deeper than its widest surface dimension” it may be considered a Class V well and fall under 2.a below. When in doubt check with NMED early on in the design.
      i. Example: 5’ wide, 40’ long, 5’ deep trench backfilled with pea gravel, with filter fabric between the soil and pea gravel.
2. A NON-PERMITTED CLASS V WELL - Two one-page forms to submit: Notice of Intent (NOI) *and* Underground Injection Control (UIC) Well Inventory. Once these forms are submitted and processed NMED will send a letter stating that no Permit is required.
   a. Relatively shallow infiltration systems that include man-made devices to distribute fluids below normal surface grade. There is no specific cutoff depth to define “relatively shallow”, but most infiltration trenches the DOT would design would likely be considered shallow. This category is appropriate for parking lots or highway/road drainage, as compared to 3.b below. Again, if in doubt, contact NMED.
      i. Example: a 5’ wide, 40’ long, 5’ deep gravel-filled infiltration trench which has either a vertical perforated pipe in the gravel layer, or horizontal distribution pipes in the gravel layer, or both.
   b. Are there any annual reports or other documents that need to be filed?
      i. Generally, for residential and light commercial (e.g., retail parking lots) NMED does not require any periodic monitoring. If the facility has a potential greater than the previously described to contain and discharge contaminant(s), NMED may require some sort of monitoring and reporting, perhaps tied to a rain event. Check with NMED when in doubt.
   c. Is a Notice of Termination required if the infiltration trench is destroyed, removed, or taken out of service?
      i. Yes, NMED requires notification if the system is “permanently abandoned” which can include its destruction or removal. If a system is just taken out of service for a period of time, even a year, but it is expected to be used again, then we do not need to be notified. If a system is taken out of service permanently (e.g., a building is raised or road is removed) then the system needs to be “closed” which usually entails filling in impoundments, plugging and abandoning vertical wells, plugging pipes, and removing or demolishing tanks as well as notifying NMED.
3. A PERMITTED CLASS V WELL - Two one-page forms as in 2.a above are submitted first, and when NMED responds (within 60 days of receipt) with a letter stating that a Discharge Permit is required, a Ground Water Discharge Permit Application (18 pages) must be submitted within the deadline in the letter. In some cases, if it is certain that a Discharge Permit is required based on discussion with NMED, the two one-page forms can be omitted to expedite the process for receiving a Discharge Permit.
   a. An injection or recharge system that is not shallow and uses man-made devices to distribute fluids
      i. Example: a 200’ deep injection well
   b. A relatively shallow infiltration system that otherwise could be considered as 2.a above, but which collects runoff from an area that is likely to contain a higher concentration of contaminants.
      i. Example: a patrol yard or maintenance facility that drains to a shallow infiltration trench.

Short version…

Current NMED requirements for stormwater infiltration permitting and documentation.

1. NOT A CLASS V WELL, NO FORMS SUBMITTED
   a. Shallow surface infiltration such as a retention pond. This is an open water surface feature.
   b. Shallow trench backfilled with natural material.
2. A NON-PERMITTED CLASS V WELL
   a. Two one-page forms to submit:
      i. Notice of Intent (NOI)
      ii. Underground Injection Control (UIC) Well Inventory.
      iii. Once these forms are submitted and processed NMED will send a letter stating that no Permit is required.
   b. Relatively shallow infiltration systems that include man-made devices to distribute fluids below normal surface grade. This category is appropriate for parking lots or highway/road drainage, as compared to 3.b below. Again, if in doubt, contact NMED.
   c. Generally, for residential and light commercial (e.g., retail parking lots) NMED does not require any periodic monitoring. If the facility has a potential greater than the previously described to contain and discharge contaminant(s), NMED may require some sort of monitoring and reporting, perhaps tied to a rain event. Check with NMED when in doubt.
   d. Notice of Termination required if the infiltration trench is destroyed, removed, or taken out of service.
3. A PERMITTED CLASS V WELL
   a. An injection or recharge system that is not shallow and uses man-made devices to distribute fluids
   b. Two one-page forms as in 2.a above are submitted first, and when NMED responds (within 60 days of receipt) with a letter stating that a Discharge Permit is required, a Ground Water Discharge Permit Application (18 pages) must be submitted within the deadline in the letter.