CITY OF ALBUQUERQUE

STORM WATER MANAGEMENT PROGRAM (SWMP)

DECEMBER 1, 2019

PREPARED FOR COVERAGE UNDER US EPA NPDES

GENERAL PERMIT NMR04A000

MIDDLE RIO GRANDE WATERSHED BASED MUNICIPAL

SEPARATE STORM SEWER SYSTEM (MS4) PERMIT

Revisions

SWMP Version	Date Submitted to EPA	Reason for Revision (e.g., Annual Report, Modification, etc.)	Notes
V.0, December 1, 2016	December 1, 2016	n/a	Initial submission of SWMP
V.0, December 1, 2019	December 1, 2019	Modification	Modified submission of SWMP

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Abbreviations

E. coli	*Escherichia coli*
mg/L	milligrams per liter
NM	New Mexico
N	North
U.S.	United States

Acronyms

ABCWUA	Albuquerque Bernalillo County Water Utility Authority
ACT	Advanced Chemical Transport
AMAFCA	Albuquerque Metropolitan Arroyo Flood Control Authority
BMP	Best Management Practice
BO	Biological Opinion
BOD_5	Biological Oxygen Demand
CFR	Code of Federal Regulations
CGP	Construction General Permit
CISEC	Certified Inspector of Sediment and Erosion Control
CMC	Compliance Monitoring Cooperative
COA	City of Albuquerque
COD	Chemical Oxygen Demand
CPESC	Certified Professional of Erosion and Sediment Control
CSI-MS4	Certified Stormwater Inspector - MS4
CWA	Clean Water Act
DCIA	Directly Connected Impervious Area
DPM	Development Process Manual
DO	Dissolved Oxygen
DMR	Discharge Monitoring Report
EPA	Environmental Protection Agency
ESC	Erosion and Sediment Control
FSP	Field Sampling Plan
GI/LID	Green Infrastructure/Low Impact Development
Haz-Mat	Hazardous Materials
HHWCC	Household Hazardous Waste Collection Center

IA	Impervious Area
IDDE	Illicit Discharge Detection and Elimination
IDO	Integrated Development Ordinance
KAFB	Kirtland Air Force Base
MEP	Maximum Extent Practicable
MQL	Minimum Quantification Levels
MRG	Middle Rio Grande
MRGSWQT	Middle Rio Grande Stormwater Quality Team
MS4	Municipal Separate Stormwater Sewer System
MSGP	Multi-Sector General Permit
NDC	North Diversion Channel
NMDA	New Mexico Department of Agriculture
NMDOT	New Mexico Department of Transportation
NMED	New Mexico Environment Department
NOI	Notice Of Intent
NOT	Notice Of Termination
NPDES	National Pollutant Discharge Elimination System
OSE	Office of the State Engineer (New Mexico)
P2/GH	Pollution Prevention/Good Housekeeping
PCB	Polychlorinated Biphenyls
PE	Professional Engineer
QAPP	Quality Assurance Project Plan
SAP	Sampling and Analysis Plan
SIC	Standard Industrial Classification
SIO	Significantly Identical Outfall

SJD	San Jose Drain
SNL	Sandia National Laboratories
SPCC	Spill Prevention, Control and Countermeasure Plan
SSCAFCA	Southern Sandoval County Arroyo Flood Control Authority
SWMP	Stormwater Management Program
SWPPP	Stormwater Pollution Prevention Plan
TAG	Technical Advisory Group
TDS	Total Dissolved Solids
TKN	Total Kjeldahl Nitrogen
TMDL	Total Maximum Daily Load
TSS	Total Suspended Solids
UA	Urbanized Area
UNM	University Of New Mexico
WLA	Waste Load Allocation
WQS	Water Quality Standard
WQCC	Water Quality Control Commission (New Mexico)
WWTP	Waste Water Treatment Plant

1. Introduction

This Stormwater Management Program (SWMP) was prepared by the City of Albuquerque (COA). The 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 Stormwater Sewer System (MS4) Permit NMR04A000 (herein MS4 Permit or Permit). The MS4 Permit was issued and became effective on December 22, 2014, and was subsequently modified by EPA on April 9, 2015 and February 10, 2016[1]. The MS4 Permit is included in Appendix A-1 of this SWMP, the April Notice of Modification from EPA is Appendix A-2, and the February Notice of Modification from EPA is Appendix A-3.

The SWMP serves to document proposals, implementation, and assessments associated with operation of the SWMP. The SWMP will be revised and modified as necessary and required over the course of the Permit term, and will include all applicable records.

The initial SWMP summarizes the applicable Permit requirements and describes how the COA intends to comply with the requirements to ensure that stormwater discharges from the COA MS4 do not contribute pollutants to waters of the United States (US), namely the Rio Grande. The initial SWMP provides as much information as is currently available with regard to elements of COA's Notice of Intent (NOI), description of best management practices (BMPs), measurable goals, and anticipated implementation dates as required by MS4 Part I.B.2. A complete SWMP was submitted with the first Annual Report (due December 1, 2016), as required in Part III.B. A complete SWMP will be submitted with the 4th annual report (due December 1, 2019), as required in Part III, Section B.

1.1. Purpose of the MS4 Permit

The MS4 Permit was developed for MS4 operators within the MRG Watershed that discharge stormwater to waters of the US.

EPA's MS4 program addresses pollution from stormwater runoff that is conveyed by MS4s and discharged into rivers and streams. The EPA defines a MS4 as a conveyance or system of conveyances that is:

- Owned by a state, city, town, village, or other public entity that discharges to waters of the U.S.;
- Designed or used to collect or convey stormwater (including storm drains, pipes, ditches, etc.);
- Not a combined sewer; and
- Not part of a Publicly Owned Treatment Works (sewage treatment plant).

In 1990, the EPA established Phase I of the NPDES program, requiring operators of "medium" and "large" MS4s, generally those serving populations greater than 100,000, to implement stormwater management programs to control the discharge of pollutants from their stormwater systems. In 1999, the Phase II NPDES program extended coverage of the MS4 stormwater permits to qualifying "small" MS4s.

The MRG Watershed MS4 Permit provides coverage to MS4 operators located fully or partially within the Albuquerque Urbanized Area (UA) (based on the 2000 and 2010 Decennial Census). In addition, the

[1] The version of the MS4 Permit referenced throughout this SWMP Plan (Appendix A-1) was issued on December 22, 2104 and modified by EPA on April 9, 2015, and February 10, 2016.

Permit attempts to regulate stormwater discharges on a watershed basis by providing incentives for collaboration and legally-binding cooperation among the various MS4s within the Middle Rio Grande; however, the option to independently meet Permit requirements is preserved. The COA will comply with all of the requirements of the MS4 Permit, and cooperates to the extent practicable for each program element.

1.2. Permittee Eligibility [MS4 Part I.A]

1.2.1. Permit Area [MS4 Part I.A.1]

This SWMP covers the COA MS4. The COA is located within Bernalillo County, New Mexico (NM). The majority of the COA's stormwater runoff is captured by channels under the jurisdiction of the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) MS4. Bernalillo County, New Mexico Department of Transportation (NMDOT), the University of New Mexico (UNM), Kirtland Air Force Base (KAFB), Sandia National Laboratory (SNL), Los Ranchos de Albuquerque, Sandoval County, Southern Sandoval County Arroyo and Flood Control Authority (SSCAFCA), Corrales, and the City of Rio Rancho, are all other MS4's under the MRG MS4 Permit that are adjacent to or within the COA. These separate MS4 are all working in cooperation with the COA in implementation of the MS4 Permit requirements. Only the State Fairgrounds/Expo NM (EXPO) have opted out of working cooperatively with other agencies.

1.2.2. National Historical Preservation Act [MS4 Part I.A.3.b]

The COA meets Criterion A of MS4 Part I.A.3.b(i): 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. The COA complies with the National Historical Preservation Act as follows:

1. There are no historic properties that are affected by stormwater or allowable non-stormwater discharges.
2. Per the current Phase I MS4 Permit, the COA is in compliance with NM State Historic Preservation Office (SHPO) requirements specified in Part IV, Section U (EPA, March 1, 2012). Language in the 2012 MS4 Permit was approved by SHPO during the 2008 reapplication.
3. The COA has an Archaeological Ordinance, approved in 2007, that establishes procedures to protect archaeological sites within the city. Land disturbances resulting in discovery of such sites must undergo review by qualified individuals.

1.2.3. Authorized Non-Stormwater Discharges [MS4 Part I.A.4]

Any such discharge that is identified as a significant contributor of pollutants to the COA MS4, or is causing or contributing to a water quality standard violation, will be addressed as an illicit discharge pursuant to Part I.D.5.e of the MS4 Permit.

Table 1-1 below lists authorized non-stormwater discharges and indicates those that are applicable to the COA MS4, and the reason these discharges are not expected to be significant contributors of pollutants to the MS4.

Table 1-1: Authorized Non-Stormwater Discharges

Allowable Non-Stormwater Discharges	Reason discharge is not expected to be a significant contributor of pollutants:
Potable water sources, including routine water line flushing and fire hydrant flushing	Line flushing discharges are directed to the storm drain system and are not expected to contribute pollutants. Chlorine dissipation occurs rapidly in the open flow channels.
Lawn, landscape, and other irrigation waters	The Albuquerque Bernalillo County Water Utility Authority (ABCWUA) has a water use ordinance controlling this discharge. Fertilizer, herbicide, and pesticides are applied to manufacturer recommendations.
Diverted stream flows	Not applicable to the COA.
Rising ground waters	Discharged directly through the storm drain system.
Uncontaminated groundwater infiltration and pumped groundwater	Discharged directly through the storm drain system.
Foundation and footing drains, or water from crawl space pumps	Not a large source of discharge.
Air conditioning or compressor condensate	Not expected to be contaminated.
Springs	Not applicable to the COA.
Individual residential car washing	Not a large source of discharge.
Flows from riparian habitats and wetlands	Not a large source of discharge.
Dechlorinated swimming pool discharges	When directed to the storm drain system and are not expected to contribute pollutants.
Street wash waters that do not contain detergents and where no un-remediated spills or leaks of toxic or hazardous materials have occurred	Streets are swept with vacuum and mechanical sweepers.
Discharges or flows from firefighting activities (excludes firefighting training activities)	Not a large source of discharge.
Other similar occasional incidental non-stormwater discharges	Not a large source of discharge.

1.2.4. Limitations of Coverage [MS4 Part I.A.5]

The COA does not authorize the mixing of stormwater discharges with sources of non-stormwater unless such non-stormwater discharges are in compliance with a separate NPDES permit; exempt from permitting under the NPDES program; or determined not to be a substantial contributor of pollutants to waters of the U.S. [I.A.4.a]

The COA discharges industrial stormwater within the COA in accordance with the provisions of the Multi-Sector General Permit (MSGP) see Table 1-2. These sites will remain compliant with the requirements of the MSGP and the associated Stormwater Pollution Prevention Plan (SWPPP). [I.A.5.f]

The COA discharges stormwater from construction activities within the COA in accordance with the provisions of the Construction General Permit (CGP). There are multiple sites with NOIs for coverage under the CGP. These sites will remain compliant with the requirements of the CGP and their associated SWPPPs. [I.A.5.c]

The COA will implement measures or controls that are consistent with the EPA-approved TMDL through the SWMP, as documented in the SWMP. [I.A.5.f]

1.3. Notice of Intent [MS4 Parts I.A.3.a, I.A.6.a, I.B, I.D.5.h(i) and Appendix E]

For coverage under the MS4 Permit as a Class A Permittee with cooperative programs, the COA filed an NOI to EPA on or before June 20, 2015 (no later than 180 days from the effective date of the Permit of December 22, 2014). The NOI is provided as Appendix C-1 of this SWMP.

1.3.1. Public Notice

This SWMP will be available for public review and comment. The MS4 Permit, NOIs and SWMP are available to the public and any interested party through the City of Albuquerque's homepage (http://www.cabq.gov/municipaldevelopment/our-department/engineering/storm-water-management/municipal-separate-storm-sewer-system-ms4-permit).

1.3.1.1 Copy of Public Notice

A copy of the public notices, including the legal newspaper publication is provided as Appendix C-2 of this SWMP.

1.3.1.2 Permittee's Notification of Coverage

The COA received notice from the EPA on December 17, 2015 that the NOI was found to be technically complete and granting authorization under NMR04A000. The assigned Permit tracking number for the COA is NMR04A014. A copy of the coverage notification letter is included in Appendix C-3 of this SWMP.

1.3.1.3 Permittee's Responses to Public Comments

Public comments received by the COA will be reviewed and considered for incorporation into a SWMP revision. The COA received no public comments on the December 1, 2016 SWMP version. Any comments and a summary of COA responses will be submitted to EPA with this SWMP update on or before December 1, 2019.

1.3.1.4 Continued Availability of Records to Public

Public participation in the review, modification, and implementation of this SWMP is encouraged and provided for as described in Section 11 of this SWMP. The MS4 Permit, NOI and SWMP are available to the public and any interested party through the COA website (http://www.cabq.gov/municipaldevelopment/our-department/engineering/storm-water-management/municipal-separate-storm-sewer-system-ms4-permit). Documents associated with the COA's MS4 Permit coverage have been and will continue to be posted to and maintained on this website throughout the Permit term.

1.3.2. Classification and Population

As prescribed by Appendix A of the MS4 Permit, the COA is classified as a Class A Permittee. This SWMP complies with the requirements set forth in the Permit for Class A Permittees.

The COA MS4 serves a total population of approximately 546,364 people based on the 2010 Census.

1.3.3. NOI Filed

The NOI form available at http://www.epa.gov/region6/water/npdes/sw/ms4/index.htm includes the information required by Part I.B.2 of the MS4 Permit. The NOI was submitted to EPA via e-mail at the R6_MS4Permits@epa.gov on or before June 20, 2015. The NOI was also submitted to the New Mexico Environment Department (NMED) and the Pueblo of Isleta on or before June 20, 2015.

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

Pueblo of Isleta
Attn: Ruben Lucero, Environmental Division Manager
P.O. Box 1270
Isleta, NM 87022

1.3.4. Duty to Reapply [MS4 Part IV.C]/Continuation of Expired Permit [MS4 Part IV.V]

According to the Permit Part IV.V, any permittee who was granted permit coverage prior to expiration date will automatically remain covered by the continued permit. The COA assumes automatic coverage of the continued Permit according to the conditions in this section. However, a letter will be prepared by the Technical Advisory Group representing participating permittees that discusses continued permit coverage and will be sent to the EPA prior to the Permit expiration date of December 19, 2019 to formalize acknowledgement of continued permit coverage. The COA will reapply for permit coverage following issuance of a new MS4 permit by EPA in the timeframes outlined in the new permit.

1.4. Site Description

1.4.1 MS4 Boundary

The COA MS4 boundary is the City limits.

1.4.2 Other NPDES Permit Coverage

Some COA sites that are covered under the MSGP and/or CGP are located within the boundary of the MS4. The COA MSGP facilities are listed in Table 1-2 below. The list of COA construction sites is a dynamic list that is available upon request. Stormwater discharges associated with industrial and/or construction activities at these sites will be addressed pursuant to the MSGP or CGP, as applicable. All other stormwater discharges associated with these sites will be addressed pursuant to the MS4 Permit. Note that the number and identification of construction sites is dynamic, and permit coverage is

terminated following stabilization. As the SWMP is revised, Table 1-2 has been and will continue to be updated if necessary.

Table 1-2: COA Sites Covered Under the MSGP within the COA MS4 Boundary as of October 10, 2016

Site Name	Drainage Basin	Permit	NOI Number	Status
Albuquerque International Sunport	Tijeras Arroyo	MSGP	NMR053023	Active
Double Eagle II Airport	South Boca Negra Arroyo	MSGP	NMR053025	Active
Yale Maintenance Facility	South Diversion Channel	MSGP	NMR053201	Active
Daytona Maintenance Facility	Tierra Bayita Channel	MSGP	NMR053200	Active
Montessa Park Convenience Center	Tijeras Arroyo	MSGP	NMR053423	Active
Edith Yards Maintenance Facility	Alameda Drain	MSGP	NMR053422	Active
Eagle Rock Convenience Center	South La Cueva Arroyo	MSGP	NMR053421	Active
Don Reservoir Convenience Center	Snow Vista Arroyo	MSGP	NMR053420	Active
Clean City Division at Pino Yards	South Domingo Baca Arroyo	MSGP	NMR053419	Active

1.5. Compliance with Other Laws and Regulatory Requirements [MS4 Parts I.D.1 and IV.N]

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 COA maintains compliance with state and federal regulations and laws that are related to (but do not conflict with) the requirements of the MS4 Permit. In some cases, compliance with the additional regulations and laws (as described below) meets or exceeds the requirements of the MS4 Permit, or demonstrates compliance with NPDES Permits (i.e., CGP, MSGP and MS4).

1.5.1 Endangered Species Act

COA meets Endangered Species Act eligibility Criterion C, which means that federally-listed threatened or endangered species or their designated critical habitat(s) are likely to occur in or near the site's action area[2], and the site's discharges and discharge-related activities are not likely to adversely affect listed threatened or endangered species or critical habitat.

[2] 50 CFR 402 defines "action area" as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.

There are are 2 current/proposed federally-listed species and/or federally-designated critical habitats within the COA boundary; the following are federally and State of New Mexico listed species and/or federally designated critical habitats located in Bernalillo County and the action area:

- Yellow-billed Cuckoo (Coccyzus americanus) (proposed critical habitat)
- Mexican Spotted Owl (Strix occidentalis lucida)
- Southwestern Willow Flycatcher (Empidonax traillii extimus)
- Rio Grande silvery minnow (Hybognathus amarus) (critical habitat)
- New Mexico meadow jumping mouse (Zapus hudsonius luteus)
- Gray Vireo (Vireo vicinior; State of New Mexico listed only) (breeding habitat)

Stormwater discharges and discharge-related activities are not likely to adversely affect the species and critical habitats listed above. Although several threatened and endangered species are recognized as having the potential for occurring in the vicinity of the COA MS4, it is not anticipated to impact any protected species. The surrounding area has been extensively developed and in use for more than 50 years. It is unlikely that habitat for any species of concern is present within the project area or surrounding vicinity. The conclusion of no impact is based on previous experience in the area with similar projects.

Based on the justification provided above, COA can verify that the installation of stormwater BMPs will not occur in or adversely affect currently listed endangered or threatened species critical habitat, in accordance with the requirements of Part I.C.3.b(vi). A current list of endangered or threatened species is available at the U.S. Fish and Wildlife service website http://criticalhabitat.fws.gov/crithab/. A current list of state endangered or threatened species is available at http://www.wildlife.state.nm.us/conservation/wildlife-species-information/threatened-and-endangered-species/.

The COA MS4 program is consistent with the USFWS Biological Opinion (BO) related to the MRG Watershed MS4 Permit dated August 21, 2014 - Cons. #22420-2011-F-0024-R001. There are two requirements associated with the BO: Dissolved Oxygen Strategy and Sediment Pollutant Load Reduction Strategy.

1.5.2 Office of the State Engineer

Section 19.26.2.15 NMAC, issued by the Office of the State Engineer, states, “A permit is required to capture or store surface water in an impoundment” and “A permit to appropriate water is required for an impoundment created by constructed works, sand and gravel operations, or mining operations, including excavations that fill with water.” Subsection B of 19.26.2.15 NMAC states, “No permit to appropriate water is required for an impoundment when the primary purpose of the impoundment is flood control, provided the outlet drains the impoundment (from the spillway crest) in 96 hours. The water shall not be detained in the impoundment in excess of 96 hours unless the state engineer has issued a waiver to the owner of the impoundment.”

In compliance with the MS4 Permit, the COA may be constructing detention basins and/or dams for post-construction stormwater management and may be constructing basins as sediment control BMPs.

The COA's stormwater management detention basins and sediment basins will not be constructed for the purpose of capturing, storing or appropriating waters of the state, but may be used for the primary purpose of flood control as follows:

- Stormwater management detention basins and dams will be designed to allow for the release of detained stormwater within 96 hours. Storm events that exceed the design volume of the impoundment will cause stormwater to discharge in a controlled manner from the impoundment.
- Sediment basins on active construction sites or other areas highly erosive areas of COA will be constructed for the purpose of retaining water long enough to allow for sediment drop-out. Sediment basins will be designed to allow for the infiltration of stormwater within 96 hours. Storm events that exceed the design volume of the impoundment will cause stormwater to discharge in a controlled manner from the impoundment.

1.6. Legal and Enforcement Authority [MS4 Part I.D.2]

The COA is a local city government located within Bernalillo County.

The COA has the legal authority to control discharges to and from the COA MS4, and therefore filed an NOI to obtain coverage under the MS4 Permit. A SWMP will be prepared by the COA. With cooperative elements of the MS4 Permit submittals, where possible, reports and other documentation filed in accordance with the requirements of the MS4 Permit will be jointly certified, or otherwise submitted in duplicate by each cooperative partner.

Several parts of the MS4 Permit require an enforcement plan. The COA has passed ordinances to allow for enforcement activities associated with MS4 Permit components.

1.7. MS4 Stormwater Team [MS4 Part I.D.3]

The MS4 stormwater team is responsible for developing, implementing, maintaining and revising this SWMP Plan. Implementation of the SWMP will involve multiple departments within the COA, in addition to the Storm Drainage Section. As responsibilities are identified for other departments, Table 1-3 will be updated.

Table 1-3. COA MS4 Stormwater Team

Permittee / Department	Roles and Responsibilities[3]	Primary Contacts
1. City of Albuquerque (COA)		
Department of Municipal Development - Engineering Division	• Files NOI for COA. • Prepares and Certifies SWMP • Certifications performed in accordance with Delegation of Authority letter • Oversees COA's compliance with MS4 Permit requirements. • Certifies SWMP revisions, Annual Reports, DMRs and all other necessary documentation. • Require compliance with conditions in ordinances, permits, contracts and/or orders. • Complies with MS4 Permit requirements to: o Control the discharge of stormwater and pollutants (construction and post-construction). o Prohibit illicit discharges and sanitary sewer overflows to the MS4 and require removal of such discharges. o Control the discharge of spills and prohibit the dumping or disposal of materials other than stormwater into the MS4. • Carry out all inspection, surveillance and monitoring procedures necessary to maintain compliance with the MS4 Permit.	Kathy Verhage, Senior Engineer (505) 768-3654 kverhage@cabq.gov Shellie Eaton, Senior Engineer (505) 768-2774 seaton@cabq.gov Stormwater Field Supervisor 3 – Stormwater Inspectors
Planning Department	• Control the discharge of stormwater and pollutants (construction)	Doug Hughes, Storm Water Quality Engineer (505) 924-3986 jhughes@cabq.gov

[3] All certifications are preformed per the Delegation of Authority Letter submitted to EPA.

2. Water Quality Standards [MS4 Part I.C]

The MS4 Permit includes provisions to ensure that Permittees do not cause or contribute to exceedances of applicable water quality standards, and to control discharges to the maximum extent practicable (MEP). This Section of the SWMP Plan presents the water quality standards applicable to the COA MS4. Measures taken to ensure compliance with those standards are contained throughout the remainder of this SWMP Plan.

2.1 Applicable Standards [MS4 Part I.C.1.b]

Water quality standards that apply to discharges from the COA MS4 include the State of New Mexico Water Quality Control Commission (WQCC) Standards for Interstate and Intrastate Surface Waters and the Pueblo of Isleta Surface Water Quality Standards (Appendix E of this SWMP Plan). While the MS4 Permit prohibits the discharge of stormwater from the COA MS4 that would cause or contribute to an exceedance of any regulated constituent, stormwater sampling is only required for key indicator water quality constituents. These include: temperature, total suspended solids (TSS), total dissolved solids (TDS), chemical oxygen demand (COD), biological oxygen demand (BOD_5), dissolved oxygen (DO), oil and grease, Escherichia coli (*E. coli*), pH, total Kjeldahl nitrogen (TKN), total phosphorus, polychlorinated biphenyls (PCBs), and gross alpha. The applicable water quality standard for each of these constituents is listed in Table 2-1 below. The most stringent of the applicable standards listed in the table apply to the COA MS4.

Table 2-1. Applicable Water Quality Standards for Monitored Constituents

Constituent	Unit	WQCC WQ Standard October 12, 2000	Isleta Pueblo WQ Standard March 18, 2002	Most Stringent Applicable WQ Standard
Temperature	°C	< 32.2	< 32.2	< 32.2
TSS	mg/L	--	--	--
TDS	mg/L	1,500[a]	--	1,500[a]
COD	mg/L	--	--	--
BOD_5	mg/L	--	--	--
DO	mg/L	>5	>5	>5
Oil and Grease	mg/L	--	10/15[b]	10/15[b]
E. coli	cfu/100mL	206/940[c]	47/88c	47/88[c]
pH	mg/L	6.6-9.0	6.0-9.0	6.6-9.0
TKN	mg/L	varies[d]	varies[d]	varies[d]
Total Phosphorus	mg/L	--	--	--
PCBs	µg/L	0.00064	0.00074	0.00064
Gross Alpha	pCi/L	15	15	15

--no established standard

[a]monthly average

[b]weekly average/single sample

[c]monthly geometric mean/single sample

[d]based on ammonia as nitrogen; no TKN listed; temperature and pH dependent; typical anticipated range is 2-6 mg/L, calculated as $N = ((0.0577/1+10^{7.688-pH}))+(2.487-(1+10^{pH-7.688})))*MIN(2.85, 1.45*10^{0.028*(25-T)})$

2.2 Notification of Exceedance [MS4 Part I.C.1.c]

In the event of an exceedance of any Pueblo of Isleta water quality standard at an in-stream sampling location, the COA will notify EPA and the Pueblo of Isleta in writing within 30 days of discovery of the exceedance. An "in-stream sampling location" is a sampling location in a Water of the U.S. The COA MS4 is participating in the Compliance Monitoring Cooperative (CMC) and has two in-stream sampling locations for compliance with the MS4 Permit. Exceedance reporting is conducted by AMAFCA on behalf of the CMC members.

The MS4 Permit holds no specific requirement for the COA to provide notice of an exceedance of the WQCC Standards for Interstate and Intrastate Surface Waters, except as part of the Annual Report. Reporting of exceedances in the Annual Report is addressed in Section 13 of this SWMP Plan.

2.3 Impaired Waters Status [MS4 Part I.C.2]

Impaired waters in New Mexico are those that have been identified by an EPA approved CWA §303(d) List as not meeting applicable New Mexico Surface Water Quality Standards. The MS4 Permit requirements for discharges to impaired waters also extend to controlling pollutants in MS4 discharges to receiving waters of the impaired waters.

The only impaired water in the MRG watershed is the Rio Grande. The Rio Grande has been segregated into several reaches, each with reach-specific impairments. There are three segments of the Rio Grande with a TMDL for E. coli. The Rio Grande from the Alameda Street Bridge to US 550 (ID: NM-2105.1_00), the Rio Grande from the Isleta Pueblo boundary to the Tijeras Arroyo (ID: NM-2105_50), and the Rio Grande from the Tijeras Arroyo to Alameda Bridge (NM-2105_51).

The Rio Grande has the following impairments in the MS4 area without TMDLs:

- Rio Grande (Alameda Bridge to US 550 – ID NM-2105.1_00) – PCBs in Fish Tissue, and Gross Alpha adjusted;
- Rio Grande (Isleta Pueblo to Tijeras Arroyo – ID NM-2105_50) – DO and PCBs in Fish Tissue;
- Rio Grande (Tijeras Arroyo to Alameda Bridge – ID NM-2105_51) – DO, PCBs in Fish Tissue, and Temperature.

The Tijeras Arroyo, upstream of the Four Hills Bridge, is impaired for nutrient/eutrophication.

Impairments are currently determined using the 2018-2020 State of New Mexico Clean Water Act 303(d)/305(b) Integrated Report, Appendix A – List of Assessed Surface Waters, November 1, 2018, State of New Mexico Water Quality Control Commission (https://www.env.nm.gov/wp-content/uploads/2018/03/Appendix-A-Integrated-List.pdf.)

2.4 Discharges to Impaired Waters with an Approved TMDL and their Receiving Waters [MS4 Part I.C.2.b(i)]

The COA MS4 discharges to the Rio Grande and the Rio Grande has a TMDL so the requirements of Part I.C.2.b(i) apply to COA.

A TMDL for bacteria within the Alameda Bridge to Isleta Pueblo reach of the Middle Rio Grande and Alameda Bridge to US 550 reach of the Middle Rio Grande were published by the WQCC on April 13, 2010, and approved by EPA on June 30, 2010 (US EPA, 2010). The 2010 TMDL specifies *E. coli* as the indicator parameter used to assess compliance (see the 2014-2016 State of New Mexico Clean Water Act §303(d)/§305(b) Integrated List in Appendix E of this SWMP Plan).

Discharges of pollutants to an impaired water body with an established TMDL are not permitted under the MS4 Permit unless they are consistent with the established TMDL. Each individual MS4 is allowed to discharge a predetermined proportion of the total TMDL, which is referred to as the waste load allocation (WLA). The Permit specifies that the "percent jurisdiction approach" be used to determine the maximum WLA for each MS4, or cooperating group of MS4s. A description of the percent jurisdictional approach and relevant TMDL data for the Middle Rio Grande watershed are provided in Appendix B of the Permit. Detailed discussions of the TMDLs and the percent jurisdictional approach can also be found in the document U.S. EPA Approved TMDL for the Middle Rio Grande Watershed, June 30, 2010 (U.S. EPA, 2010).

An aggregate WLA for the CMC was requested from NMED in September 2015, a copy of the letter is included in Appendix E. Confirmation of the approved aggregate WLA was received from NMED in November 2015. WLAs were determined for each of the monitoring locations described in Section 12.2 of this SWMP Plan. The combined WLA for CMC is provided in Table 2-2 below. Monitoring methods that will be used to determine waste loads for evaluating TMDL compliance are described in Section 2.4.2 below.

Table 2-2. COA MS4 Areas and Associated Waste Load Allocations (Angostura to Isleta Pueblo Reach of the MRG)

Alameda to Isleta	**High**	**Moist**	**Mid**	**Dry**	**Low**
	(>3360 cfs)	**(929-3360 cfs)**	**(664-929 cfs)**	**(319-664 cfs)**	**(0-319 cfs)**
Kirtland AFB	1.2E+11	3.01E+10	2.03E+10	7.46E+9	1.74E+9
Sandia Labs/DOE	2.08E+9	5.2E+8	3.5E+8	1.29E+8	2.99E+7
Combined WLA for Cooperative	2.51E+11	6.29E+10	4.22E+10	1.57E+10	3.42E+9
Total WLA	3.7308E+11	9.35E+10	6.285E+10	2.329E+10	5.19E+9
Angostura to Alameda	**High**	**Moist**	**Mid**	**Dry**	**Low**
	(>3360 cfs)	**(929-3360 cfs)**	**(664-929 cfs)**	**(319-664 cfs)**	**(0-319 cfs)**
EXPO NM	6.23E+08	1.56E+08	1.05E+08	3.86E+07	8.98E+06
Combined WLA for Cooperative	3.14E+11	9.09E+10	No Value	3.24E+10	1.68E+10
Total WLA	3.15E+11	9.11E+10		3.24E+10	1.68E+10

2.4.1 Bacteria-Specific BMPs

The COA's proposed plans for the targeted controls and measureable goals for bacteria include:

2.4.1.1 Sanitary Sewer Systems:

The COA has pre-treatment units that are used to meet acceptable discharge limits, but discharges all sanitary wastewater via underground sewer lines that are maintained and operated by the ABCWUA. The wastewater treatment plant for the ABCWUA is located outside of the COA MS4 within Bernalillo County MS4.

Measureable goals are N/A for COA.

2.4.1.2 On-site Sewage Facilities:

The COA maintains no on-site sewage treatment facilities within COA owned property. Bernalillo County handles all permitting for on-site sewage treatment systems.

Measureable goals are N/A for COA.

2.4.1.3 Illicit Discharges and Dumping:

The COA has a robust IDDE Program that addresses sources of bacteria. Refer to Section 9 of this SWMP.

The COA will address Illicit Discharges and Dumping in its IDDE program. The COA will continue to coordinate with the ABCWUA for correction of any cross-connections detected during the IDDE Program. The COA will continue coordination with the ABCWUA, who informs the COA of any sewer overflows that impact COA facilities.

2.4.1.4 Animal Sources:

The COA will continue its focus on pet waste through its Mutt Mitt Stations, "Scoop the Poop" campaign with the MRGSWQT, and a "There is no Poop Fairy" campaign. Proper pet waste disposal is addressed in the Storm Water Quality Ordinance. The Albuquerque BioPark has a robust program to handle animal waste from the Zoo. Exhibits at the Zoo are self-contained in respect to the discharge of stormwater. The animal shelters in the area have drains directing stormwater from any potential animal waste areas to the sanitary sewer.

The COA will continue to provide Mutt Mitt stations. The COA will contribute and participate in the MRGSWQT. The COA refers to the MRGSWQT Outcomes Report in each Annual Report that will summarize the activities where educational materials are distributed.

2.4.1.5 Residential Education:

The ABCWUA has an extensive fats, oils, and grease clogging campaign. Efforts at residential education are made though the MRGSWQT.

The COA will contribute and participate in the MRGSWQT. The COA refers to the MRGSWQT Outcomes Report in each Annual Report that will summarize the activities where educational materials are distributed.

2.4.2 Monitoring and Assessment

The Permit specifies that the TMDL applies only to areas within the Albuquerque UA. The COA participates in the CMC which is conducting sampling at the upstream and downstream MS4 extents of the MRG in accordance with Part III.A of this Permit. Calculations for the WLA had not been fully discussed and nor approved by NMED at the time of the original SWMP submittal.

The E-coli load is first calculated at two locations in the Rio Grande: (1) upstream of the Middle Rio Grande Watershed (North) and (2) downstream of the Middle Rio Grande Watershed (South) using E-coli concentration and mean daily flow velocity at each of the locations according to the following equation:

$E.\ Coli\ Concentration\ \left(\frac{CFU}{100mL}\right) x\ 28{,}316.85\ \left(\frac{mL}{ft3}\right) x$ Mean Daily Flow $\left(\frac{ft3}{sec}\right)$ x 3,600 $\left(\frac{sec}{hr}\right)$ x 24 $\left(\frac{hr}{day}\right)$ = E. coli Loading $\left(\frac{CFU}{day}\right)$

The resulting difference, or Delta in E.coli Loading, between the North and South locations are then used to determine the load contributed by CMC agencies to the Middle Rio Grande.

Because not all E.coli sampled Not all E. coli sampled in the Rio Grande is related to MS4 activities, the storm event E. coli loading must be reduced to only represent the MS4 E. coli loading so that a comparison can be made to the MS4 WLAs.

The NMED presented a Jurisdictional Area Approach in Appendix F of the US EPA Approved, Total Maximum Daily Load (TMDL) for the Middle Rio Grande Watershed, June 30, 2010. This approach in 2010 still had the MS4s divided into Phase I and Phase II permittees, which no longer applies.

The NMED report was used in this calculation to determine the percent that the MS4s contribute to each stream segment. These values for each stream segment for the Middle Rio Grande MS4s are based on NMED's Jurisdictional Area Approach:

Rio Grande - Alameda to Angostura - 6 %

Rio Grande - Isleta to Alameda - 10 %

The remaining percentages are designated for non-point sources and natural background occurrences of E. coil.

These WLA percentages already account for the drainage areas reaching each stream segment.

The CMC does not have an interim E. coli sample at the Alameda Bridge, which is the division of the two stream segments. Therefore, to determine the E. coli loading for the northern stream segment (Alameda to Angostura), a ratio needs to be applied to the E. coli loading. The areas used in NMED's Jurisdictional Area Approach in Appendix F of the US EPA Approved, Total Maximum Daily Load (TMDL) for the Middle Rio Grande Watershed, June 30, 2010 were used to determine this ratio. The total

contributing watershed area for the Alameda to Angostura segment = 1,612.72 sq. mi. with the total contributing watershed area = 2084.15 sq. mi.

$$\frac{1612.72\ sq.\ mi.}{2084.15\ sq.\ mi.} = 0.77 \quad \text{or } 77\%$$

Therefore, the load contributed by the northern segment is multiplied by 0.77 and added to that contributed by the southern segment to determine the total load.

2.5 Discharges Directly to Impaired Waters without an Approved TMDL [MS4 Part I.C.2.b(ii)]

The Rio Grande has the following impairments, without TMDLs:

- Rio Grande (Isleta Pueblo to Tijeras Arroyo) - DO and PCBs in fish tissue;
- Rio Grande (Alameda to US 550) - PCBs and Gross Alpha adjusted;
- Rio Grande (Tijeras Arroyo to Alameda) – DO, PCBs in fish tissue, and water temperature.

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 that crosses COA, Bernalillo County and NMDOT MS4s. The COA has worked with Bernalillo County and NMDOT on a study on nutrients in the Tijeras Arroyo, see Appendix D-1. The COA and Bernalillo County have also funded a proposal to prepare a Watershed Plan for the Upper Tijeras Arroyo (see Attachment 5 in the FY19 Annual Report)

The other impairments are discussed in other sections of this SWMP. Compliance monitoring (Part III.A) includes Gross Alpha testing. The testing will allow members of the Compliance Monitoring Cooperative to determine background level relative to stormwater discharges. Future assessment related to this impairment will be based on results of those samples.

2.6 PCBs [MS4 Part I.C.1.e]

The results from the 2012-2014 monitoring of the North Diversion Channel (NDC) watershed indicated the presence of PCBs at the Grantline and N. Camino Inlets. Based on the data, MS4 partners conclude 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 2014-2015, AMAFCA continued activities to identify and eliminate controllable sources of PCBs that cause or contribute to exceedances of applicable water quality standards in waters of the US in accordance with the MS4 Permit No. NMS000101 (Table IV.A.2 in the Permit). In particular, 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) 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 area will occur in 2015 based on the results of the 2014 study and using the developed FSP and QAPP.

Based on ownership responsibilities, COA will continue to take the lead regarding follow-up PCB permit activities on the SJD and AMAFCA will continue to take the lead on follow-up PCB permit activities on the NDC. In 2015, AMAFCA, with the assistance of a water quality consultant, completed reviewing and assessing all past PCB data for the NDC; identifying commercial and industrial properties that may have contribute PCBs to the North Camino and the Grantline Channel; researching past PCB releases in these areas; and providing additional PCB monitoring activity recommendations.

In addition, a Sampling and Analysis Plan (SAP), a Field Sampling Plan (FSP), and a Quality Assurance Project Plan (QAPP) for soil and sediment sampling were developed for the COA to address Special Conditions cited in the Watershed Based Permit. Additional sediment sampling and analysis for PCBs and other contaminants of concern was conducted by a consulting firm on behalf of the COA at various outfalls in the Albuquerque Metropolitan Area in 2015 and 2016 using the developed FSP, SAP, and QAPP. Results were included in the FY17 and FY18 Annual Reports under Attachment 1 (COA Sediment Sampling). Finally, AMAFCA continues to include in its Annual Reports a progress report of PCB permit activities on the NDC. However, AMAFCA does not have jurisdictional authority to create ordinances or enact enforcement if PCB sources are found on privately owned properties.

A cooperative strategy has been discussed with AMAFCA as needed, if PCBs are discovered in channels or arroyos.

2.7 Temperature [MS4 Part I.C.1.f]

AMAFCA and the original MS4 co-permittees (COA, NMDOT, and UNM) do not believe that MS4 discharges adversely affect temperature in the receiving waters of the Rio Grande. In order to prove this assertion, temperature data from 1982 to 2012 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 will continue assessing the potential effect of stormwater discharges in the Rio Grande by collecting and evaluating additional data. Details on AMAFCA's program are available in the AMAFCA SWMP.

Temperature data will continue to be collected in the Rio Grande using Sondes (Sondes are part of the Endangered Species Act, DO, and BO Permit program requirements). Temperature of stormwater has been shown to be consistently below standards. Sondes data is available upon request from AMAFCA.

2.8 Anticipated Program Development and Implementation Schedule [MS4 Table 1.a]

Table 2-3. Pre-TMDL Bacteria Program Development and Implementation Schedule

Activity	Required Implementation Date	Implementation Status
Identify potential significant sources of pollutants of concern entering the MS4	4/21/2016	Completed
Develop and implement a public education program to reduce the discharge of bacteria in municipal stormwater contributed by pets, recreational and exhibition livestock, and zoos.	4/21/2016	Completed
Develop and implement a program to reduce the discharge of bacteria in municipal stormwater contributed by areas within the MS4 served by on-site wastewater treatment systems.	6/21/2016	N/A
Review results to date from IDDE (see Part I.D.5.e) and modify as necessary to prioritize the detection and elimination of discharges contributing bacteria to the MS4.	6/21/2016	Ongoing
Develop and implement a program to reduce the discharge of bacteria in municipal stormwater contributed by other significant sources identified in the IDDE (see Part I.D.5.e).	8/22/2016	Completed under NMS000101, but ongoing revisions
Include in the Annual Reports progress on program implementation and reducing the bacteria and updates their measurable goals as necessary.	December 1 each year (first due 12/01/2016)	Ongoing

Table 2-4. Pre-TMDL Nutrient Program Development and Implementation Schedule

Activity	Required Implementation Date	Implementation Status
Identify potential significant sources of pollutants of concern entering the MS4	4/21/2016	Completed under NMS000101, but ongoing revisions
Develop and implement a public education program to reduce the discharge of the pollutant of concern in municipal stormwater contributed by residential and commercial use of fertilizer.	4/21/2016	Completed under NMS000101, but ongoing revisions
Develop and implement a program to reduce the discharge of pollutant of concern in municipal stormwater contributed by fertilizer use at municipal operations (e.g., parks, roadways, municipal facilities)	6/21/2016	Completed under NMS000101, but ongoing revisions
Develop 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	6/21/2016	Completed under NMS000101, but ongoing revisions
Develop and implement a program to reduce the discharge of the pollutant of concern in municipal stormwater contributed by other significant sources identified in the IDDE (see Part I.D.5.e).	6/21/2016	Completed under NMS000101, but ongoing revisions
Include in the Annual Reports progress on program implementation and reducing the nutrient pollutant of concern and updates their measurable goals as necessary.	December 1 each year (first due 12/01/2016)	Completed under NMS000101, but ongoing revisions

3. Endangered Species Act Requirements [MS4 Part I.C.3]

Permittees are required to meet the following requirements in order to ensure actions allowed by the MS4 Permit are not likely to jeopardize the continued existence of an endangered species or threatened species listed in the U.S. Fish and Wildlife Biological Opinion dated August 21, 2014, or adversely affect its critical habitat.

3.1 Dissolved Oxygen Strategy in Receiving Waters [MS4 Part I.C.3.a(i)]

The MS4 Permit requires the COA to identify structural elements, topographical and geographical formations, MS4 operations, or oxygen consuming pollutants contributing to reduced dissolved oxygen (DO) in the receiving waters of the Rio Grande. Permittees are required to submit a summary of investigations, findings, and activities undertaken with each Annual Report, and include a detailed description of controls implemented (or proposed) and the corresponding measurable goals in the first and fourth SWMP revisions.

AMAFCA takes the lead on DO data collection. The primary areas having shown reduced DO levels in the past are all maintained by AMAFCA. Following retrofits by AMAFCA in 2015 and 2016, the COA no longer believes that reduced DO will be an issue in the MRG. Please see the AMAFCA SWMP for more details. AMAFCA has the lead on the Annual Incidental Take Report, a copy of the report will be included with the Annual Report.

3.2 Sediment Pollutant Load Reduction Strategy [MS4 Part I.C.3.b]

The MS4 Permit requires the COA to develop, implement, and evaluate a Sediment Pollutant Load Reduction Strategy to assess and reduce sediment loads of discharges to receiving waters of the Rio Grande to include the elements outlined below.

3.2.1 Sediment Assessment [MS4 Part I.C.3.b(i)]

The COA has identified and investigated areas that may be contributing excessive levels of pollutants in sediments to receiving waters of the Rio Grande and will continue to do so as ongoing efforts under the current permit. To date, no structural elements, topographical and geographical formations, MS4 operations, nor areas indicated as potential sources of sediment pollutants located within the boundary of the COA MS4 have been identified. The COA MS4 sediment assessment report was included in the first Annual Report (due December 1, 2016), the FY17 Annual Report. A Phase II Sediment Report was included in the FY17 and FY18 Annual Report. A Sediment Pollutant Reduction Load Strategy was included with the FY19 Annual Report and is included in this SWMP Update (see Appendix D).

3.2.2 Estimate of Baseline Loading [MS4 Part I.C.3.b(ii)]

Based on the results of the Sediment Assessment, the baseline sediment loading and potential for contamination from those sediments to enter the Rio Grande were estimated for the COA MS4 drainage areas, impervious areas (IA), and directly connected impervious area (DCIA). Results of IA and DCIA were provided to EPA in the first Annual Report (due December 1, 2016) and have been provided in

subsequent reports. Sediment Assessment Studies and a Sediment Pollutant Load Reduction Strategy have also been provided in the FY17, FY18, and FY19 Annual Reports.

3.2.3 Targeted Controls {MS4 Part I.C.3.b.(iii)]

Using the results from the Sediment Assessment and Estimate of Baseline Loading, targeted controls and BMPs continue to be developed for the COA MS4 to decrease the sediment pollutant loads to the Rio Grande. The COA has an extensive network of ponds and dams that have dual purpose functions, sediment removal and flood control. An implementation schedule for each control/BMP will be developed as projects develop and funds become available.

3.2.4 Monitoring and Interim Reporting [MS4 Part I.C.3.b(iv)]

Monitoring and/or assessment is conducted annually, to evaluate the effectiveness of targeted controls and BMPs, and coordinated with the monitoring activities described in Part III of the MS4 Permit (Section 13 of this SWMP). Documentation of methods and any available monitoring results were provided in the SWMP submitted with the first Annual Report (due December 1, 2016), and will continue to be submitted in each subsequent SWMP and Annual Report, as available.

3.2.5 Progress Evaluation and Reporting [MS4 Part I.C.3.b(v)

The overall effectiveness of the Sediment Pollutant Load Reduction Strategy was evaluated and is included in a Progress Report submitted with the fifth Annual Report (due December 1, 2020). The Progress Report provides data and analysis in a manner that will facilitate the evaluation of BMP effectiveness and compliance with Endangered Species Act requirements specified in Part I.C.3.b(iii) of the MS4 Permit.

4. SWMP Components and Compliance

4.1 Purpose of SWMP [MS4 Part I.D.1]

The SWMP developed by the COA is designed to control and reduce discharges of pollutants from the COA MS4 to the MRG, and to protect water quality within and downstream of the COA MS4. The SWMP will meet the requirements of NPDES Permit NMR04A000, Section 402(p)(3)(B) of the Clean Water Act, and National Pollutant Discharge Elimination System regulations (40 CFR 122.26 through 122.34).

The SWMP Plan documents the COA's development, implementation and enforcement of the SWMP, as well as compliance with the MS4 Permit. The SWMP Plan is revised as necessary (annually at a minimum), and updates, if any, are submitted to EPA with the Annual Report due December 1st each year as required in the NPDES Permit NMR04A000.

4.2 Control Measure Programs [MS4 Parts I.D.4 and I.D.5]

In accordance with the MS4 Permit, the SWMP will include the control measure programs listed below. Each control measure program is addressed in a separate section of this SWMP Plan as listed.

- Section 5: Construction Site Runoff Control Program - Controls the discharge of stormwater and pollutants associated with land disturbance and development activities.
- Section 6: Post-Construction Stormwater Management Program - Controls the discharge of stormwater from new development and redevelopment projects after construction site stabilization has been achieved to minimize water quality impacts.
- Section 7: Pollution Prevention / Good Housekeeping Program – Prevents or reduces pollutant runoff from municipal operations through training, maintenance, and waste management.
- Section 8: Industrial and High Risk Program – Controls the discharge of stormwater and pollutants associated with industrial activities.
- Section 9: Illicit Discharge Detection and Elimination Program - Prohibits illicit dumping or disposal of materials other than stormwater into the MS4 and controls the discharge of spills.
- Section 10: Control of Floatable Discharges Program - Controls floatables in discharges to the MS4 through implementation of source controls and structural controls.
- Section 11: Public Education and Outreach Program - Provides education to the regulated community of the impact that illegal discharges and improper disposal of waste have on stormwater quality.
- Section 12: Public Involvement and Participation Program - Encourages public involvement and provides opportunities for participation in review, modification and implementation of the SWMP.

4.3 Organizational Structure of Programs [MS4 Part I.B.2.i]

For each control measure program, this SWMP Plan includes a description of the BMPs to be implemented; the measurable goals for each BMP; and the anticipated time frames (and interim

milestones as appropriate) for implementing each BMP. As the SWMP Plan evolves through annual revisions, each control measure program will include the following information:

1. Requirement Descriptions and Cooperative Status
2. Mechanisms Used to Comply with Permit Requirements (BMPs)
3. Measurable Goals
4. Anticipated Program Development and Implementation Schedule
5. Performance Assessment

4.4 Process for SWMP Reviews [MS4 Part I.D.6.a]

The SWMP undergoes an annual review in conjunction with preparation of the Annual Report and includes the following components:

- A discussion of progress made in SWMP implementation, including achievement of measureable goals and compliance with control measure program elements and other MS4 Permit conditions.
- An evaluation of the effectiveness of the SWMP in complying with the Permit with respect to controlling pollutant discharges, and complying with water quality standards and TMDLs.
- The necessity for SWMP modifications to comply with the Permit and control pollutant discharges, 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 Permit conditions.

The first and fourth Annual Reports will contain a complete SWMP revision.

4.5 Schedules of Implementation

The NOI submittal deadline is 180 days from the Permit effective date (i.e., June 20, 2015). While a complete SWMP Plan is not required to be submitted with the NOI, the NOI form requests submission of information that requires significant progress to have been made on the SWMP Plan. This initial SWMP Plan summarizes the applicable Permit requirements and describes how the COA intends to comply with the requirements to ensure that stormwater discharges from the COA MS4 do not contribute pollutants to waters of the United States, namely the Rio Grande. The initial SWMP Plan provides as much information as is currently available with regard to the elements of the COA's NOI, description of BMPs, measureable goals and anticipated implementation dates as required by MS4 Part I.B.2.

A complete SWMP Plan is required (by Part III.B) to be submitted with the first Annual Report (due December 1, 2016); however, the Permit requires implementation of several SWMP elements prior to December 1, 2016. There are separate implementation schedules for the monitoring program and each control measure, which are presented in Sections 5 through 12 of this SWMP Plan.

The SWMP Plan serves to document proposals, implementations, and assessments associated with operation of the SWMP. It will be revised and modified as necessary and required over the course of the Permit term, and will include all applicable records.

4.6 SWMP Modifications

The SWMP may be modified under the conditions described below. Any modifications pursuant to Part IV.A of the MS4 Permit will be done in accordance with Part V.B [MS4 Part VI.D].

4.6.1 Permittee-Initiated Modifications [MS4 Part I.D.6.b]

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

4.6.2 EPA-Required Modifications [MS4 Part I.D.6.c]

Modifications may be requested by EPA to address impacts to receiving water quality, include requirements to comply with new or revised regulations, add measures needed to comply with the Clean Water Act, or add measures needed to comply with the MS4 Permit.

If modifications are requested by EPA, the Permittee will be provided with an opportunity to propose alternative program modifications to meet the objective of the requested modification.

4.6.3 Due to Modifications of the MS4 Permit [MS4 Part V]

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

5. Construction Site Runoff Control Program [MS4 Part I.D.5.a]

5.1 Requirement Descriptions and Cooperative Status

Permittees are required to 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 or are part of a larger common plan of development (consistent with the permitting requirements of the NPDES CGP).

The COA will comply with all of the requirements of the MS4 Permit, and cooperates to the extent practicable for each program element.

5.2 Mechanisms Used to Comply with Permit Requirements (BMPs)

5.2.1 Development of Municipal Ordinance [MS4 Part I.D.5.a(ii)(a)]

The COA has a flood control and drainage ordinance that addresses the requirements for erosion and sediment controls and allows for sanctions for failure to comply. The Drainage Ordinance meets all of the MS4 permit requirements for construction. The ordinance contains policies, procedures, criteria, and requirements for stormwater drainage and quality.

The COA enacted a stormwater quality ordinance that reduces the potential for the introduction of contaminants into stormwater runoff thereby enhancing the water quality in the Rio Grande. The Stormwater Quality Ordinance includes policies, procedures, criteria, and requirements regarding discharges from industrial, commercial, and residential properties into the COA's MS4. It prohibits all but a few allowable discharges (see Table 1-1) into the COA's MS4.

The COA has a Development Process Manual (DPM) that compiles city processes and procedures in one document. The DPM has elements that address the MS4 Permit requirements. Chapter 22, "Drainage, Flood Control, and Erosion Control" provides COA regulatory guidance for public and private construction activities with regards to control of storm water runoff.

5.2.2 Development of Requirements/Procedures [MS4 Parts I.D.5.a(ii)(b) through (h)]

5.2.2.1 Existing Construction Program (SWPPPs, Inspections and Records Management)

The COA currently complies with the requirements of Parts I.D.5.a(ii)(b) through (h) of the MS4 Permit. Per the DPM, requests for approvals of development and/or platting proposals to the City Engineer must be accompanied by drainage control, flood control, stormwater quality control, and erosion control information and/or commitments. The particular nature, location and scope of the proposed development define the degree of detail. One or more of the following levels of submittal are generally required based on the following: Conceptual Grading and Drainage Plan, Drainage Plan, Drainage Report, Erosion and Sediment Control Plan (ESC Plan), all which address stormwater quality control. An

Erosion and Sediment Control Permit (ESC Permit) will continue to be required for all construction, demolition clearing and grading operations within the COA that disturbs the soil on sites one acre or greater or that are a larger common plan of development. Per the DPM, the COA has encouraged and will continue to encourage active construction sites to implement structural and non-structural controls, such as phased construction, dust control, good housekeeping practices, proper waste disposal, and spill prevention and response.

Per the DPM, every Stormwater Control Permittee shall comply with the following. At a minimum a routine compliance self-inspection is required to review vegetation, erosion and sediment control measures, and other protective measures identified in the Erosion and Sediment Control Plan and the associated Stormwater Permit for Erosion and Sediment Control, if any. Until the site construction has been completed and the Notice of Termination approved under the General Construction Permit, the owner or his/her agent shall make a thorough inspection of the stormwater management system as established by the Erosion and Sediment Control Plan. These inspections' frequency shall be based on site conditions and project circumstances as noted in the site's Erosion and Sediment Control Plan. Regardless of the planned frequency, inspections shall occur after each precipitation event of 0.25 inch or greater. Reports of these inspections shall be kept by the person or entity authorized to direct the construction activities conducted during progress of the work, during work suspensions, and until the permit is closed. Inspectors with Construction Services Division (CSD) inspect City construction projects and provide NPDES support.

5.2.2.2 Existing Training Program

The COA, co-permittees, and other local agencies have provided and will continue to provide training sessions for permittee personnel, developers, construction site operators, contractors and supporting personnel on SWPPP preparation, processes, and consequences for lack of implementation of BMPs.

5.2.2.3 Planned Improvements to the Program

In addition to maintaining the CGP process discussed above, the COA has been updating the DPM to include relevant changes that have resulted from the MS4 Permit.

Pursuant to Part I.D.5.a(ii)(e) of the Permit, the COA plans to use the public notice process associated with the MS4 NOI, SWMP and Annual Reports to consider input from the public regarding the development and implementation of this program.

5.2.3 Annual Inspection of 100 Percent of Construction Sites [MS4 Part I.D.5.a(iii)]

As described above, construction site inspections are routinely performed by the Planning Stormwater Quality Engineer and CSD Team members in accordance with the CGP and SWPPP requirements; therefore, 100 percent of all construction projects cumulatively disturbing one or more acres or part of a larger common plan of development within the MS4 jurisdiction will be inspected throughout the year. When site inspections reveal necessary maintenance, repair or other problems with the site, corrective action reports are created and follow-up inspections are performed to document completion of corrective actions. Sites in Priority areas are inspected two times minimum.

5.2.4 Coordination with Departments Involved in Construction Projects/Activities [MS4 Part I.D.5.a(iv)]

As the SMWP evolves, the Stormwater Team identified in Section 1.7 of this SWMP Plan will expand to include subject matter experts and points of contacts in multiple organizations including the Planning Department, CSD, Engineering Division, and Parks. Currently, the Planning Department and Engineering Division promote coordination with many departments that have responsibilities associated with the planning, review, permitting, or approval of construction projects/activities, to ensure that stormwater runoff controls prevent erosion and maintain sediment on site.

5.2.5 Evaluation of Green Infrastructure/Low Impact Development (GI/LID)/Sustainable Practices [MS4 Part I.D.5.a(v)

Permittees are required to include an evaluation of opportunities for use of GI/LID/Sustainable Practices and encourage project proponents to incorporate such practices into the site design to mimic the pre-development hydrology of the previously undeveloped site during the site plan review required in Part I.D.5.a.(ii)(d).

The COA's compliance with GI/LID/Sustainable Practices is discussed in detail in Section 6.2.7 of this SWMP Plan. A review already occurs in the construction planning stages of each project to demonstrate compliance with GI/LID/Sustainable Practices. A tally of the annual construction projects with approved plans will be included in the Annual Report.

5.2.6 Additional Proposed Activities to Address Construction Site Runoff

The COA recognizes the potential and severity of stormwater pollution from construction projects/activities. The Stormwater Quality Ordinance encourages the installation/use of the following stormwater controls and pollution prevention measures for the duration of the project:

- Install sediment controls for any storm drains or drop inlets within the boundary of the project area. The drain/inlet controls should be designed, installed and maintained to limit or prevent the discharge of debris, chemicals, sediment or other pollutants in stormwater runoff generated by the construction project. Controls should be installed such that sediment is prevented from entering the drain/inlet while allowing stormwater to pass through, avoiding flooding.
- Chemicals stored outdoors must be covered/containerized to prevent contact with precipitation and on secondary containment to prevent contact with stormwater.
- Secure portable toilets to prevent tipping (e.g., stake with rebar or bolt to trailer).
- Containers and trucks containing paint, concrete or other building products must be washed into an appropriate waste container. Discharges to the sanitary sewer, storm drain or ground surface are prohibited.

The COA is working towards implementation of these controls on smaller sized City projects.

5.3 Measureable Goals

The COA has developed the following measureable goals and/or information to be provided in the Annual Report to correspond with the existing and/or proposed BMPs discussed above:

- A current list of active construction projects including applicable permit details have been and will continue to be maintained by the Planning Department and CSD at all times.
- For active construction sites located within the boundary of the COA MS4, a summary of the number and frequency of inspections, required corrective actions (discovery during site inspections) and associated compliance history have been and will continue to be maintained.
- A log will be maintained of any issued stop work orders for work within the boundary of the COA MS4 [I.D.5.a(ii)(h)].
- A count of the approved construction projects (one acre or more) that met the COA's Drainage Ordinance criteria have been and will continue to be maintained.

5.4 Anticipated Program Development and Implementation Schedule [MS4 Table 2]

Table 5-1. Construction Site Runoff Control Program Implementation Schedule

Activity	Required Implementation Date	Implementation Status
Develop Ordinance [I.D.5.a.(ii)(a)]	6/21/2016	Completed
Include Requirements in Procedure [I.D.5.a.(ii)(b) through (h)]	6/21/2016	Completed
Inspect 100 percent of Construction Sites [I.D.5.a.(iii)]	12/22/2016	Completed
Coordinate with Other Departments [I.D.5.a.(iv)]	2/20/2016	Completed
Evaluate Projects for GI/LID/Sustainable Practices [I.D.5.a.(v)]	2/20/2016	Completed
Update the SWMP and Submit Annual Report [I.D.5.a.(vi) and (vii)]	December 1 each year (first due 12/01/2016)	Ongoing
Enhance the program to include program elements of Parts I.D.5.a(viii) through (x).	update as necessary / applicable	Ongoing

5.5 Performance Assessment Performance Assessment

The COA has completed the required program elements and continues to make improvements to the Construction Program.

6. Post-Construction Stormwater Management Program [MS4 Part I.D.5.b]

6.1 Requirement Descriptions and Cooperative Status

Permittees are required to 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 stormwater quality impacts.

The COA will comply with all of the requirements of the MS4 Permit, and cooperates to the extent practicable for each program element.

6.2 Mechanisms Used to Comply with Permit Requirements (BMPs)

6.2.1 Development of Strategies [MS4 Part I.D.5.b(ii)(a)]

A combination of structural and/or non-structural BMPs will be implemented to control pollutants in stormwater runoff on new development and redevelopment projects within the COA MS4. Details of these strategies are discussed below.

6.2.2 Development of Municipal Ordinance [MS4 Part I.D.5.b(ii)(b)]

The COA has a flood control and drainage ordinance that addresses the requirements for post-construction runoff from new development and redevelopment projects, as discussed below. The Drainage Ordinance was revised to meet the MS4 Permit definition of the 90% storm event. The ordinance contains policies, procedures, criteria, and requirements for stormwater drainage and quality.

The COA enacted a stormwater quality ordinance to reduce contaminants in stormwater runoff thereby enhancing the water quality in the Rio Grande. This ordinance prohibits the introduction of any pollutants into the municipal separate storm sewer system (MS4) other than designated allowable discharges. It contains policies and procedures regarding discharges associated with industrial, commercial, construction, and residential activities that may affect the quality of stormwater runoff.

The DPM has elements that address the MS4 Permit post-construction requirements. Chapter 22, “Drainage, Flood Control, and Erosion Control” provides COA regulatory guidance for redevelopment projects with regards to control of storm water runoff. Additional revisions to the DPM to incorporate MS4 Permit requirements are underway. A draft updated DPM is undergoing administrative review.

6.2.3 Implementation and Enforcement of Design Standards [MS4 Part I.D.5.b(ii)(b)]

The MS4 Permit requires Permittees to 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. 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".

Management of stormwater on-site can be achieved through measures such as infiltration, evapotranspiration, detention, and other means. Any impoundments used for flood control will comply with New Mexico Office of the State Engineer (OSE) requirements (19.26.2.15 NMAC) and drain within 96 hours unless OSE has issued a waiver.

Additionally, as discussed in detail in Section 1.5.2 of this SWMP Plan, detention basins will be constructed within the COA for post-construction stormwater management (pursuant to the MS4 Permit) and basins may also be constructed as sediment control BMPs. Stormwater management detention basins and sediment basins will be designed to allow for the release or infiltration of detained stormwater within 96 hours. Storm events that exceed the design volume of the impoundment will cause stormwater to discharge in a controlled manner from the impoundment.

The Drainage Ordinance and DPM discuss the implementation and enforcement of post-construction control measures.

6.2.4 Implementation of Structural Controls [MS4 Parts I.D.5.b(ii)(c) and (d)]

The COA will perform the following actions for privately maintained facilities:

- Pre-construction reviews of BMP designs will be completed during review of Erosion and Sediment Control Plans, and prior to issuance of Building, Grading or Paving Permits as described in Section 5.2.2 of this SWMP Plan.
- Inspections will be performed prior to approval for Occupancy to verify post-construction stormwater management BMPs are being built as designed.

In accordance with Chapter 22 of the DPM, all public stormwater facilities shall be maintained by the city or other public body. The maintenance of multiple use facilities to which the general public is denied access shall be the responsibility of the owners and shall be performed to City Engineer standards. The City Engineer may allow private maintenance within public right-of-way or easement provided that adequate guarantees and indemnifications are supplied. Private stormwater facilities shall be maintained by the facilities' owner to standards established by the City Engineer and published in the DPM. The COA has decided to self-perform inspections of private stormwater facilities to minimize paperwork and reporting obligations for the land and facility owners. Ongoing Stormwater Control Permit obligations may be required as to Stormwater Control Measures.

Non-compliance with pre-construction BMP design, failure to construct BMPs in accordance with the design, and ineffective post-construction operation and maintenance of BMPs will be addressed through the enforcement protocol discussed in Section 1.6 of this SWMP Plan.

The COA will continue to review and revise the post-construction program requirements as appropriate to incorporate improvements in control techniques and technologies. Chapter 22 Section 11 of the DPM covering Stormwater Quality and LID has been drafted and is in the administrative review process.

6.2.5 Development of Procedures [MS4 Parts I.D.5.b(ii)(e) through (h)]

The COA works with the MRGSWQT to provide funding for a local arid LID workshop. The development community is encouraged to attend the workshops in the Albuquerque Metropolitan area.

In accordance with Chapter 22 of the DPM, private stormwater facilities shall be maintained by the facilities' owner to standards established by the City Engineer and published in the DPM. Periodic inspections are completed by the COA.

Pesticide, herbicide and fertilizer applicators are trained and certified by the New Mexico Department of Agriculture (NMDA).

Revisions to the DPM to incorporate MS4 Permit requirements are currently underway.

6.2.6 Coordination with Departments Involved In Construction Projects/Activities [MS4 Part I.D.5.b(iii)]

As the SMWP evolves, the Stormwater Team identified in Section 1.7 of this SWMP Plan will expand to include subject matter experts and points of contacts in multiple organizations including the Planning Department, CSD, Engineering Division, and Parks. Currently, the Planning Department and Engineering Division promote coordination with many departments that have responsibilities associated with the planning, review, permitting, or approval of new development and redevelopment projects/activities within the COA MS4.

6.2.7 Assessment of Existing Policies and Procedures for Potential Impediments to GI/LID/Sustainable Practices [MS4 Part I.D.5.b(iv)]

Permittees are required to assess all existing codes, ordinances, planning documents and other applicable regulations, for impediments to the use of GI/LID/Sustainable Practices and develop a report of the assessment findings to be used to provide information to promote necessary changes and allow implementation of GI/LID/Sustainable Practices.

The COA has previously completed an assessment of the impediments to GI/LID/Sustainable Practices under the previous MS4 permit NMS000101. The COA offered to resubmit the assessment on the scheduled due date or could resubmit it at a future date if necessary.

6.2.8 Number of Impervious Area (IA) and Directly Connected Impervious Area (DCIA) Acres [MS4 Part I.D.5.b(vi)]

An estimation of the number of acres of IA (including conventional pavements, sidewalks, driveways, roadways, parking lots, and rooftops) and DCIA (the portion of IA with a direct hydraulic connection to the MS4 via continuous paved surfaces, gutters, pipes, and other impervious features) will be provided in the Annual Report for the COA MS4.

6.2.9 Inventory and Priority Ranking of Infrastructure for Potential GI/LID/Sustainable Practice Retrofits [MS4 Part I.D.5.b(vii)]

The COA has previously submitted a letter report that discusses the priority ranking of the property within the COA MS4 that may have the potential to be retrofitted with control measures designed to control the frequency, volume, and peak intensity of stormwater discharges within and from the MS4. If necessary, the COA can resubmit this letter report.

6.2.10 Incorporation of Watershed Protection Elements [MS4 Part I.D.5.b(viii)]

The DPM (or others as applicable), as appropriate, will be revised to include the following watershed protection elements:

- A description of master planning and project planning procedures to control the discharge of pollutants to and from the MS4 [I.D.5.b(viii)(a)].
- Recommendations to minimize the amount of impervious surfaces (roads, parking lots, roofs, etc.) within the COA MS4 watershed, by controlling the unnecessary creation, extension and widening of impervious parking lots, roads and associated development. This may be evaluated on a case-by-case basis to identify alternatives that will meet the need without creating the impervious surface [I.D.5.b(viii)(b)].
- Recommendations to identify environmentally and ecologically sensitive areas that serve critical watershed functions within the MS4 (as applicable) during the plan and design phases of project, and to preserve, protect, create and/or restore these areas during and after construction [I.D.5.b(viii)(c)].
- Recommendations for disconnecting direct discharges to surface waters from impervious surfaces such as parking lots [I.D.5.b(viii)(d)].
- Recommendations for implementing stormwater management practices that protect groundwater quality [I.D.5.b(viii)(e)].
- Recommendations to avoid or prevent hydromodification of streams and other water bodies caused by development, including roads, highways, and bridges [I.D.5.b(viii)(f)]. Such hydromodification may require additional permitting under Section 404 of the CWA.
- Requirements to protect native soils, prevent topsoil stripping, and prevent compaction of soils [I.D.5.b(viii)(g)].
- Requirements to reduce water quality impacts and recommendations to maintain redevelopment runoff conditions [I.D.5.b(viii)(h)].

6.3 Measurable Goals

The COA has developed the following measureable goals and/or information to be provided in the Annual Report to correspond with the existing and/or proposed BMPs discussed above:

- Notable GI/LID/Sustainable Practices have been and will continue to be summarized in the Annual Report.
- A log has been and will continue to be maintained to summarize any additional measures that have been implemented to decrease impervious areas, decrease stormwater discharges, and/or

improve water quality. If no measureable improvements are noted, master planning and project planning procedures will be reviewed and a plan to encourage the use of such measures will be developed. The log has been and will continue to be updated annually.

6.4 Anticipated Program Development and Implementation Schedule [MS4 Table 3]

Table 0-1. Post-Construction Stormwater Management Program Implementation Schedule

Activity	Required Implementation Date	Implementation Status
Develop Strategies [I.D.5.b(ii)(a)]	2/20/2016	Completed and ongoing revisions
Develop Procedure [I.D.5.b(ii)(b)]	12/22/2017	Completed and ongoing revisions
Implement Site Design Standards [I.D.5.b(ii)(b)]	12/22/2018	Completed and ongoing revisions
Ensure Implementation of Structural Controls [I.D.5.b(ii)(c) and (d)]	6/21/2017	Completed and ongoing revisions
Develop Procedures [I.D.5.b(ii)(e) through (h)]	6/21/2016	Completed and ongoing revisions
Coordinate with Other Departments [I.D.5.b(iii)]	12/23/2015	Completed and ongoing revisions
Perform GI/LID/Sustainable Practices Assessment of Procedures, Plans and Other Documents [I.D.5.b(iv)]	12/22/2016	Completed and ongoing revisions
Develop and Submit Assessment Report [I.D.5.b(iv)]	3/22/2017	Completed and ongoing revisions
Estimate IA and DCIA Acres [I.D.5.b(vi)]	6/21/2017	Completed; Annual tracking occurs
Retrofit Inventory and Priority Ranking [I.D.5.b(vii)]	6/21/2018	Completed
Incorporate Watershed Protection Elements into Procedure [I.D.5.b(viii)]	6/21/2017	Ongoing
Update the SWMP and Submit Annual Report [I.D.5.b(ix) and (x)]	December 1 each year (first due 12/01/2016)	Ongoing
Enhance Program to include elements of Parts I.D.5.b(xi) through (xiii).	update as necessary / applicable	Ongoing

6.5 Performance Assessment

The COA has completed required program elements and continues to make improvements to the Post-Construction Program.

7. Pollution Prevention / Good Housekeeping Program [MS4 Part I.D.5.c]

7.1 Requirement Descriptions and Cooperative Status

Permittees are required to develop, revise, and implement an operation and maintenance program that includes a training component with the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

The COA will comply with all of the requirements of the MS4 Permit, and cooperates to the extent practicable for each program element.

7.2 Mechanisms Used to Comply with Permit Requirements (BMPs)

7.2.1 Development of Pollution Prevention / Good Housekeeping Program [MS4 Parts I.D.5.c(i) and (ii)]

The COA will include documentation of the COA MS4 Pollution Prevention/Good Housekeeping Program in the SWMP Plan. The majority of the requirements of these Parts are already effective at the COA; however, some program elements need additional refinement to align with the MS4 Permit. A description of activities and programs already in place, and additional measures planned are provided below.

7.2.1.1 Employee Training Program [MS4 Part I.D.5.c(i)(a)]

As discussed in Section 5.2.2.2 of this SWMP Plan, the COA requires City employees with job duties that have the potential to impact stormwater quality to take Good Housekeeping/ Pollution Prevention Training. While the training is most commonly administered to people with construction-related jobs, the curriculum is comprehensive including stormwater protection, allowable non-stormwater discharges, prohibited discharges, training, spill prevention and response, good housekeeping, and pollution prevention measures, as well as the requirements of all three NPDES Permits (i.e., CGP, MSGP and MS4) applicable to the COA.

The annual training is required for City Employees with the following specific job duties:

- Design, install, maintain, or repair stormwater controls, conduct inspections, or implement corrective actions at construction sites;
- Plan, review, permit or approve construction site plans, inspections and corrective actions;
- Construction site operators, contractors or provide support;
- Work in permitted areas where industrial materials or activities are exposed to stormwater, or are responsible for implementing stormwater pollution prevention controls/activities necessary to meet the conditions of the industrial stormwater permit;

- Operate or maintain COA grounds or landscaping, fleet, buildings (outside), roads, stormwater inlets or drainage system, or work on projects with any ground disturbance;
- Design projects that control the effects of water quality from stormwater runoff; or
- Plan or review projects with regard to stormwater quality standards and pollution prevention controls.

A sample copy of the training is included in Appendix H of the SWMP, since each training is facility specific.

7.2.1.2 Maintenance and Inspections [MS4 Part I.D.5.c(i)(b)]

Permittees are required to include maintenance activities, maintenance schedules, and long term inspection procedures for structural and non-structural stormwater controls to reduce floatables, trash, and other pollutants discharged from the MS4.

Executed by other Departments within the COA, maintenance activities and schedules (e.g., stormwater drainage system maintenance and street sweeping) exist and are available upon request.

The frequency of inspections for facilities covered by the MSGP or Good Housekeeping SWPPPs is facility specific and specified in each SWPPP. These inspections cover structural and non-structural stormwater controls for MS4 owned facilities. All City Employees conducting inspections will have a minimum credential as a "qualified inspector." The COA consider a "qualified inspector" to be knowledgeable in the principles and practices of erosion and sediment controls and pollution prevention, and to possess the skills to assess: conditions within the MS4 that could impact stormwater quality; and the effectiveness of any stormwater controls selected and installed to meet the requirements of the Permit. Members of the Stormwater Team (see Section 1.7 of this SWMP Plan) that conduct inspections are qualified inspectors. Types of licenses and certifications held by qualified inspectors may include Professional Engineer (PE), Certified Professional of Erosion and Sediment Control (CPESC), Certified Inspector of Sediment and Erosion Control (CISEC), and Certified Stormwater Inspector - MS4 (CSI-MS4). Stormwater Team training documentation and certificates are available upon request.

7.2.1.3 Controls for Reducing Pollutants from Roads, Parking Lots, and Storage Areas [MS4 Part I.D.5.c(i)(c)]

The COA MS4 uses diversion ditches and detention basins to collect runoff from roads and parking lots. By increasing the time of concentration, floatables and sediment are able to be captured as opposed to transported directly into the stormwater drainage system.

Salt or deicing products are sparingly used on roadways and sidewalks when necessary. Salt/deicer is stored at several maintenance yards throughout the COA in covered areas to minimize exposure to precipitation. Additional stormwater controls implemented include good housekeeping, and adhering to manufacturer recommended application rates. Maintenance and fleet yards, including those with outside vehicle or materials storage include the following stormwater controls, to the extent possible: maintenance areas are covered; liquids are stored on secondary containment; solid building products

are stored on lifts (e.g., pallets above the ground surface) such that they will not come into contact with stormwater runoff; and spills or equipment leaks are reported and cleaned up immediately.

Due to the arid nature of the COA, there are no dedicated snow disposal areas operated by the COA.

The COA operates four waste convenience centers that are covered by the MSGP. Three of these facilities are located within the COA MS4 and one is located within the Bernalillo County MS4. All four facilities drain to detention ponds where floatables and trash are captured before release into the storm drain system. The COA Cerro Colorado landfill is located in Bernalillo County but outside of the MS4 Permit boundary as it drains to the Rio Puerco. Dumpster and curbside trash pick-up is currently hauled directly by truck to the landfill for disposal. Recycling pickup within the COA is taken directly to a commercial recycle facility operated by a non-COA entity.

Additionally, the fleet or maintenance shops, salt/sand storage locations, and convenience centers, adhere to the stormwater control requirements of the MSGP (as applicable) or Good Housekeeping Program and are inspected at least quarterly for compliance. Inspectors review the history of spills and leaks, any exceedances of benchmarks, results of visual inspections, and corrective actions prior to conducting the inspection. While on-site, inspectors look for evidence of the following: clean orderly site operations and maintenance; spills or equipment leaks; industrial material, residues, or trash that could be exposed to stormwater; soil disturbance; ponds in good condition and free of debris; offsite tracking of industrial waste materials; and storm clean drain inlets/grates.

Additional information applicable to Permit Part I.D.5.c(i)(c) will be provided in future SWMP revisions.

7.2.1.4 Cleaning and Disposing of Waste from the Stormwater Drainage System [MS4 Part I.D.5.c(i)(d)]

The COA has an active program for the removal of and cleaning of debris, floatables, and sediment from dams, basins, ditches, and other conveyance infrastructure. The removal will be conducted in a manner to ensure that any accumulated sources of materials that may contribute to water quality degradation are not discharged from the MS4 during a storm event. Removed material is disposed of at the Cerro Colorado landfill.

The COA maintains equipment and qualified operators who currently conduct this work. Details of the operation and the maintenance schedule are available upon request.

7.2.1.5 Flood Management [MS4 Parts I.D.5.c(i)(e) and I.D.5.c(ii)(m)]

The COA will review existing 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, by June 21, 2017. Additionally, an assessment of technical guidance documents will be performed to determine water quality impacts and the potential for incorporation of water quality controls into new flood control projects. The assessment (due June 21, 2017) is required to include the following elements:

- Methods for determining water quality impacts;

- Citations and descriptions of design standards that ensure water quality controls are incorporated;
- A summary of master planning and project planning procedures and design review procedures; and
- A schedule for future review and revision to update standards with new or innovative practices.

7.2.1.6 Enhanced Pollution Control/Good Housekeeping Measures [MS4 Part I.D.5.c(ii)]

In addition to maintaining the primary Pollution Prevention/Good Housekeeping elements described above and the construction pollution prevention measures discussed in Section 5.2.2 of this SWMP Plan, The COA will evaluate the successfulness of the program and revise the SWMP to include the following, as appropriate:

- A list of all stormwater quality facilities (by drainage area), including location and description [I.D.5.c(ii)(a)];
- An operational manual for de-icing activities, including methods to protect water quality [I.D.5.c(ii)(b)];
- A plan to control stormwater quality associated with vehicle related pollutants from storage and maintenance yards [I.D.5.c(ii)(c)];
- A review and revision of the existing street sweeping plan and schedule to optimize benefit to stormwater quality [I.D.5.c(ii)(d)];
- A list of the roadways most likely contributing to pollution in runoff to target for pollution prevention and good housekeeping [I.D.5.c(ii)(e)];
- A review and revision of existing plan for collecting used motor vehicle fluids, toxics, and hazardous materials [I.D.5.c(ii)(f)];
- A review and revision of the existing procedures and schedule for cleaning debris and sediment from the stormwater drainage system [I.D.5.c(ii)(g)];
- A review and revision of the existing litter control program, including public awareness campaigns [I.D.5.c(ii)(h)];
- Procedures and a schedule to evaluate existing flood control devices, structures and drainage ways to assess the potential for retrofitting to improve pollutant removal [I.D.5.c(ii)(i)];
- A review and revision of the existing inspection procedure for stormwater drainage structures [I.D.5.c(ii)(j)];
- MS4 Part I.D.5.c(ii)(k), that requires control of floatables and trash discharged from the MS4 for industrial and commercial areas, is addressed in Section 9 of this SWMP Plan.
- MS4 Part I.D.5.c(ii)(m), that requires review of flood control projects for impacts or benefits to water quality, is addressed in Section 7.2.1.5 of this SWMP Plan (above).
- MS4 Part I.D.5.c(ii)(n), that requires procedures to control the discharge of pollutants related to the storage and application of pesticides, herbicides, and fertilizers applied by the Permittee or contractors, is addressed in Section 6.2.5 of this SWMP Plan.

7.2.1.7 Compliance with EPA MGSP to Control Runoff from Industrial Facilities [MS4 Part I.D.5.c(iii)]

The COA discharges industrial stormwater at the COA in accordance with the provisions of the MSGP as discussed in Sections 1.2.4 and 1.4.6 of this SWMP Plan. Any measures required by the MS4 Permit will be applied to MSGP sites located within boundaries of the COA MS4 to augment measures already in place under the MSGP.

Table 1-2 of Section 1.4.6 of this SWMP Plan includes a list of sites within the COA MS4 boundary that are currently covered under the MSGP, and their associated drainage basin. A map of these sites is included in Appendix B of the SWMP Plan.

7.3 Measureable Goals

The COA has developed the following measureable goals and/or information to be provided in the Annual Report to correspond with the existing and/or proposed BMPs discussed above:

- Maintain current list of stormwater quality facilities by drainage basin, including location and description.
- The chemicals and application methods associated with deicing operations and storage at the COA will be reviewed and procedures revised (as necessary) by June 21, 2017.
- The COA will prepare a cumulative summary of retrofit evaluations conducted during the Permit term on existing flood control devices, structures and drainage ways to benefit water quality. The SWMP Plan will be updated to include a schedule (with priorities) for identified retrofit projects [I.D.5.c(ii)(l)].

7.4 Anticipated Program Development and Implementation Schedule [MS4 Table 4]

Table 0-1. Pollution Prevention / Good Housekeeping Program Implementation Schedule

Activity	Required Implementation Date	Implementation Status
Develop Pollution Prevention Program [I.D.5.c.(i)]	6/21/2016	Completed
Enhance P2/GH Program [I.D.5.c.(ii)]	6/21/2017	Ongoing
Produce Map of Industrial Facilities [I.D.5.c.(iii)]	6/21/2016	Completed
Update the SWMP and Annual Report [I.D.5.c.(iv) and (v)]	December 1 each year (first due 12/01/2016)	Ongoing

7.5 Performance Assessment

The COA has completed required program elements and continues to make improvements to the Pollution Prevention and Good Housekeeping Program.

8. Industrial and High Risk Runoff [MS4 Part I.D.5.d]

8.1 Requirement Descriptions and Cooperative Status

Permittees are required to develop, revise, implement and enforce a program to control industrial and high risk discharges into the MS4.

The COA will comply with all of the requirements of the MS4 Permit, and cooperates to the extent practicable for each program element.

8.2 Mechanisms Used to Comply with Permit Requirements (BMPs)

8.2.1 Development of Municipal Ordinance [MS4 Part I.D.5.d(i)]

The COA has developed a Storm Water Quality Ordinance (O-16-16) that controls the contribution of pollutants to the MS4 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).

8.2.2 Industrial and High Risk Program [MS4 Part I.D.5.d(ii)]

The COA has 20 facilities subject to EPCRA Title II, Section 313 requirements located within the COA MS4. These facilities are all also covered by the MSGP inspection program as these facilities all operate SIC codes that are covered by the MSGP. The COA does have an inspection program in place for commercial and industrial facilities that are covered under the MSGP.

These facilities have been prioritized by:

- Initial ranking of facilities as high, medium or low risk based on perceived risk implied based on the business type (SIC Code)
- Ranking where updated based on:
    - Review of aerial coverage of selected facilities
        - Reviewed 100% of high risk facilities
        - Randomly selected 25% of medium risk facilities
        - Randomly selected 5% of low risk facilities
    - Site inspections and interviews at selected facilities

Inspections of the industrial facilities are on-going. 100% of facilities that the COA is aware of have been inspected. The COA is in the process obtaining further business data from the NM Department of Workforce Solutions on potentially applicable businesses. A mobile application has been developed to utilize in completing the field inspections. The mobile application is tied to GIS to allow for a visual representation of facilities throughout the COA.

8.2.3 Monitoring [MS4 Parts I.D.5.d(iii)]

Industrial and commercial facilities are permitted to discharge only the allowable discharges listed in Section 1.2.3. Upon discovery, any other unauthorized discharges will be sampled and analyzed for the following parameters:

- 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.

In lieu, of the above parameter list, the COA may alter the monitoring requirement for any individual facility:

- To coincide with the corresponding industrial sector-specific monitoring requirements of the 2015 MSGP or any applicable general permit issued after June 2015.
- To coincide with the monitoring requirements of any individual permit for the stormwater discharges from that facility, and
- Any optional monitoring list must be supplemented by pollutants of concern identified by the COA for that facility.

Upon inspection of facilities covered by the MSGP, the COA will review the on-site SWPPP and monitoring records, if required.

The COA will accept a copy of a "no exposure" certification from a facility made to EPA under 40 CFR §122.26(g), in lieu of a requirement for a SWPPP and analytical monitoring.

8.2.4 Program modifications [MS4 Part I.D.5.d(iv)]

The list of facilities included in the program, by drainage basin is included in Appendix I.

The COA has prioritized a list of 41 facilities for the next round of inspections. As these facilities are inspected using the mobile application for documentation, the list of facilities for future inspection will be expanded. The inspection form includes evaluation of the facility SWPPP, DMRs, site map, and a through facility inspection. The facilities monitoring history will be reviewed during the inspection.

8.3 Measureable Goals

The COA has developed the following measureable goals and/or information to be provided in the Annual Report to correspond with the existing and/or proposed BMPs discussed above:

- The COA will report the number of inspections preformed under this program in each annual report.
- The COA will maintain a GIS map of facilities that have been inspected.

8.4 Anticipated Program Development and Implementation Schedule [MS4 Table 5]

Table 0-1. Industrial and High Risk Runoff Program Implementation Schedule

Activity	Required Implementation Date	Implementation Status
Ordinance [I.D.5.d.(i)]	12/23/2015	Passed 06/20/2016
Program implementation [I.D.5.d.(ii)]	12/23/2015	Completed
Meet Monitoring requirements [I.D.5.d.(iii)]	12/23/2015	Ongoing
Include requirements [I.D.5.d.(vi)]	12/23/2015	Ongoing
Update the SWMP and Annual Report [I.D.5.d.(v) and (vi)]	December 1 each year (first due 12/01/2016)	Ongoing
Enhance the program [I.D.5.d.(vii)]	Update as necessary / applicable	Ongoing

8.5 Performance Assessment

The COA has met the requirements laid out under the Industrial and High Risk program and continues program improvements.

9. Illicit Discharge Detection and Elimination Program ([MS4 Part I.D.5.e]

9.1 Requirement Descriptions and Cooperative Status

Permittees are required to develop, revise, implement, and enforce a program to detect and eliminate illicit discharges entering the MS4.

The COA will comply with all of the requirements of the MS4 Permit, and cooperates to the extent practicable for each program element.

9.2 Mechanisms Used to Comply with Permit Requirements (BMPs)

9.2.1 Development of a Stormwater Drainage System Map [MS4 Part I.D.5.e(i)(a)]

A map of the COA MS4 stormwater drainage system, indicating all outfalls and the names and locations of all waters of the U.S. that receive discharges from those outfalls is provided in Appendix B of this SWMP Plan.

9.2.2 Development of Municipal Ordinance [MS4 Part I.D.5.e(i)(b)]

The COA has a Stormwater Quality Ordinance (O-16-16) that was passed June 20, 2016 that prohibits illicit discharges into the COA MS4 and meets the requirements of the MS4 Permit. The ordinance includes enforcement procedures and activities.

9.2.3 Development of a Plan to Detect and Address Illicit Discharges [MS4 Part I.D.5.e(i)(c)]

The MS4 Permit requires development of an Illicit Discharge Detection and Elimination (IDDE) Program to detect and address illicit discharges to the MS4, to contain the following elements:

9.2.3.1 Procedures for Locating Priority Areas [MS4 Part I.D.5.e(i)(c)A]

In the arid climate of Albuquerque, NM, illicit discharges are relatively easy to visually detect. The COA has an IDDE Plan that is attached in Appendix J. There are thirty-seven outfall locations that are visually screened during dry weather and field tested for the selected pollutant indicators (ammonia, boron, chlorine, color, conductivity, detergents, E. coli, enterococci, total coliform, fluoride, hardness, pH, potassium, conductivity, surfactants).

9.2.3.2 Procedures for Enforcement [MS4 Part I.D.5.e(i)(c)B]

Enforcement of the IDDE Program will be addressed through the protocol discussed in Section 1.6 of this SWMP Plan. Enforcement is also discussed in the IDDE Plan in Appendix J.

9.2.3.3 Procedures for Removing the Source of the Discharge [MS4 Part I.D.5.e(i)(c)C]

Illicit discharges reported via 311 or discovered during field investigations are and will continue to be investigated by the appropriate personnel depending upon the nature of the release. The Stormwater Team (see Section 1.7 of the SWMP) and/or contractors will assist in the investigation of illicit discharges within the jurisdiction of the COA MS4.

Upon identification of illicit discharge sources or source areas, all responsible parties will be notified. Investigations into the exact cause of the illicit discharge will be conducted to determine how operations or controls can be modified to prevent future illicit discharges.

9.2.3.4 Procedures for Program Evaluation and Assessment [MS4 Part I.D.5.e(i)(c)D]

The COA will continue to evaluate and assess the effectiveness of the COA MS4 IDDE Program annually, and revise the SWMP accordingly for submission with the Annual Report due by December 1st each year. The number and type of sites inspected will be summarized on a map.

9.2.3.5 Procedures for Coordination with Adjacent MS4s [MS4 Part I.D.5.e(i)(c)E]

MS4s adjacent to COA include AMAFCA, Bernalillo County, NMDOT, UNM, KAFB, SNL, Los Ranchos de Albuquerque, Sandoval County, SSCAFCA, Corrales, and the City of Rio Rancho. The COA will investigate suspected illicit discharges and if appropriate will notify adjacent MS4s that the source of the discharge is originating from within their MS4. The COA is also notified by adjacent MS4s if a suspected illicit discharge is originating from within the COA MS4. Following notification from an adjacent MS4, the COA completes the investigation of the suspected illicit discharge.

The COA maintains a database for illicit discharges which includes the location of the illicit discharge, parties responsible, address, date, known contaminants, and previous violations, if any.

9.2.4 Development of an IDDE Program Education Plan [MS4 Part I.D.5.e(i)(d)]

The COA continues to participate in the MRGSWQT and collaborates 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.

Information brochures are provided to parties responsible for illicit discharges. The COA is sending information letters to the business community notifying them about the stormwater quality ordinance, and allowable discharges.

9.2.5 Establishment of a Hotline [MS4 Parts I.D.5.e(i)(e) and I.D.5.g(iii)]

The MS4 Permit requires establishment of a hotline to address complaints from "the public" and a program to promote, publicize, and facilitate public reporting of the presence of illicit discharges or water quality concerns associated with discharges from municipal separate stormwater drainage systems. The COA has instituted a 311 Citizen Contact Center centralized call center. The 311 service is a single telephone number for all non-emergency COA inquiries and services. This program includes citizen calls regarding illicit discharges and notifies adjacent MS4s of such calls within their jurisdiction.

Updated Information during the permit term, the City of Albuquerque has added an ABQ 311 mobile application for reporting permit violations.

9.2.6 Investigation of Suspected Significant Illicit Discharges [MS4 Part I.D.5.e(i)(f)]

All illicit discharges within the COA are taken seriously by the COA. Should an illicit discharge be detected, it will be investigated within 48 hours of the notification of the discharge during normal work day operations, and the sources identified as soon as possible. Should calls occur over weekends or holidays, investigation will occur within 2 business days. Cessation of discharge, should one exist, will be required.

9.2.7 Review compliant records [MS4 Part I.D.5.e(i)(g)]

The COA has reviewed complaint records for the last permit term and developed a targeted source reduction program for those illicit discharges/improper disposal incidents that have occurred more than twice in two or more years from different locations. The COA targeted the landscaping businesses in the fall of 2016 with letters providing information about the stormwater quality ordinance and allowable non-stormwater discharges. Potential future targets include mobile pet grooming services and carpet cleaners. The COA will continue to review complaint records and revise the targeted source reduction program as needed.

9.2.8 Addressing Specific Sources of Non-Stormwater Discharges [MS4 Part I.D.5.e(ii)]

The Permit requires that the non-stormwater discharges listed in Section 1.2.3 of this SWMP Plan be addressed if they have been determined to be a significant source of pollutants to the MS4. The COA has not identified any illicit discharges within these categories (or any other category) thought to be contributors of pollutants to the COA MS4. Any illicit discharges detected will be sampled and investigated in accordance with Section 8. If sources of illicit discharges containing significant pollutants are identified in the future, the SWMP Plan will be updated to include specific measures to address those discharges.

9.2.9 System Screening Plan [MS4 Part I.D.5.e(iii)]

The MS4 Permit requires screening of the entire MS4 jurisdiction at least once every five years, and high priority areas at least once every year. High priority areas include those areas where known illicit discharges are occurring (as identified by the methods described in Section 8.2.3 of this SWMP Plan), or where there have been five or more complaints from the public in the past year.

The COA MS4 has no identified high priority areas at this time. However, if high priority areas are identified in the future at least one high priority area will be screened per year. Screening of the COA MS4 is informally conducted on an on-going basis by field personnel trained to monitor for leaks, spills, and other discharges. A formal screening program has been developed and is in the process of implementation. The IDDE Plan is included in Appendix J which includes discussion of the means, methods, quality assurance and control protocols, field monitoring, laboratory analysis, investigations, and analysis of data collected. The dry weather screening inspections cover 37 outfalls for the presence of illicit discharge and required sampling if discharges are present. The locations inspected, observations and findings will be documented on an inspection form. Any illicit discharge encountered will be sampled, tracked to its source, and corrected through administrative or engineered control measures.

9.2.10 Development of a Waste Collection Program [MS4 Part I.D.5.e(iv)]

The COA's solid waste management department mission statement is to "Commitment and dedication of ensuring a sustainable, vibrant, and a beautiful Albuquerque, delivers premier solid waste collection,

recycling service, anti-graffiti efforts, weed and litter clean up, and related community outreach programs. These services are united, comprehensive and available to City residents, business, and other government agencies. In continuing to meet the needs of a growing community the Department is ever expanding its role for a cleaner environment and researching ways to convert waste to a sustainable resource for the benefit of the public."

9.2.10.1 Used Motor Vehicle Fluids

There are approximately 49 businesses within the COA MS4 that will accept used oil and antifreeze from "do-it-yourselfers". The businesses voluntarily provide the service at no charge to the COA. For COA facilities, the individual departments responsible for the facilities contract with used oil collection companies to remove used oil from the COA facilities.

9.2.10.2 Household Hazardous Waste

Residents of the COA can take any household hazardous wastes to the Household Hazardous Waste Collection Center (HHWCC) at no charge. The COA contracts with Advanced Chemical Transport (ACT) who operates the HHWCC. Common examples of household hazardous waste include, but are not limited to: solvents, paints, fertilizers, pesticides, herbicides, and any liquid not specifically allowed in stormwater drainage systems or sanitary sewers. The COA aims to host HHW collection events in addition to the normal ACT business hours.

9.2.11 Development of a Spill Prevention and Response Plan [MS4 Part I.D.5.e(v)

Permittees are required to develop, update and implement a program to prevent, contain, and respond to spills that may discharge into the MS4, while taking all reasonable steps to control or prevent any adverse effects to human health or the environment.

The COA has a detailed SPCC Plan that includes prevention measures including inspections, testing, records, security, operational procedures, best management practices, and personnel for facilities with oil storage volumes in excess of 1,320 gallons. In the event of a release, the COA maintains a sophisticated system of containment facilities, trained response staff, and emergency equipment to prevent pollutants from entering the stormwater drainage system.

Spill prevention is stressed in the Good Housekeeping/MSGP facility SWPPP training and SPCC Training. Spill kits are required to be kept on all applicable industrial and good housekeeping sites, and equipped to respond to the types and quantities of chemicals stored on-site. Personnel are required to be familiar with spill kit locations.

Spill response can be initiated via a 911 call. The fire department hazardous material (Haz-Mat) response team will respond, stop, and clean-up spills of hazardous materials. There are two Haz-Mat task force stations manned by 22 firefighters who have volunteered to receive specialized training in the prevention and mitigation of incidents involving hazardous materials.

Information such as the location, date, time, duration, source, cause, quality/volume, description and corrective action is recorded, and immediate verbal notifications (federal and state, as applicable) are initiated. Coordination with various applicable subject matter experts (e.g., stormwater, wastewater, groundwater, etc.) occurs to ensure compliance with all laws and regulations. All required written notifications and reporting to federal, state and local authorities is completed by the COA.

9.3 Measureable Goals

The COA has developed the following measureable goals and/or information to be provided in the Annual Report to correspond with the existing and/or proposed BMPs discussed above:

- Good Housekeeping/MSGP SWPPP training and SPCC training will be reviewed and updated annually, at a minimum, to ensure regulatory and contact information is current, and to respond to the educational and training needs of City employees.
- A log will be maintained of illicit discharges reported within the COA MS4 boundary. The log will include the method of reporting, pertinent details about the illicit discharge, and a summary of the findings and corrective actions.
- Measureable goals associated with the education plan are discussed in Section 11 of this SWMP Plan.
- The entire COA MS4 jurisdiction will be screened for illicit discharges at least once every five years, and recorded. High priority areas within the COA MS4 jurisdiction (to be identified) will be screened for illicit discharges at least once every year, and recorded.

9.4 Anticipated Program Development and Implementation Schedule [MS4 Table 6]

Table 0-1. Illicit Discharge Detection and Elimination Program Implementation Schedule

Activity	Required Implementation Date	Implementation Status
Develop Stormwater Drainage System Map [I.D.5.e(i)(a)]	2/20/2016	Completed
Develop Ordinance [I.D.5.e(i)(b)]	6/21/2017	Completed
Develop IDDE Plan [I.D.5.e(i)(c)]	6/21/2017	Completed
Develop Education Plan [I.D.5.e(i)(d)]	6/21/2016	Completed
Establish Hotline [I.D.5.e(i)(e)]	6/21/2016	Completed
Investigate IDDE [I.D.5.e(i)(f)]	6/21/2016	On-going
Review Complaints [I.D.5.e(i)(g)]	6/21/2016	Completed
Screen High Priority Areas [I.D.5.e(iii)]	12/23/2015	N/A
Screen Entire System [I.D.5.e(iii)]	12/23/2019	On-going
Develop Waste Collection Program [I.D.5.e(iv)]	6/21/2017	Completed
Develop Spill Prevention Program [I.D.5.e(v)]	6/21/2016	Completed
Update SWMP and Annual Report [I.D.5.e(vi) and (vii)]	December 1 each year (first due 12/01/2016)	On-going
Enhance Program to include elements of Part I.D.5.e(ix)(f)	Update as necessary / applicable	On-going

9.5 Performance Assessment

The COA has completed program elements for the IDDE program and continues to make program improvements.

10. Control of Floatable Discharges Program [MS4 Parts I.D.5.f and III.A.3]

10.1 Requirement Descriptions and Cooperative Status

The MS4 Permit requires permittees to develop, revise and implement a program to control floatables in discharges into the MS4. The floatables program is required to include source controls and structural controls, where needed. This section of the SWMP Plan also satisfies that requirements of MS4 Permit Part III.A.3 regarding floatables monitoring.

The COA will comply with all of the requirements of the MS4 Permit, and cooperates to the extent practicable for each program element.

10.2 Mechanisms Used to Comply with Permit Requirements (BMPs)

10.2.1 Development of a Program Implementation Plan [MS4 Part I.D.5.f(i)(a)]

The COA will continue to implement a program to address and control floatables in discharges to the MS4.

10.2.2 Plan for Source or Structural Controls to Control Floatable Discharges [MS4 Part I.D.5.f(i)(a) and (b)]

The COA will continue to install stormwater quality features to control floatables, such as inverted ported risers, trash racks, and screened inlets in both new construction and retrofits where appropriate. The COA will continue to coordinate with AMAFCA relative to structural BMPs within AMAFCA right-of-ways.

The COA 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 COA maintenance crews track the volume of floatables, sediment, trash, and debris removed from COA facilities.

10.2.3 Program Enhancement [MS4 Part I.D.5.c(ii)(k)

The Floatables Program established in compliance with the MS4 Permit will be enhanced to control the discharge of floatables and trash from the COA MS4 by implementing source control of floatables specifically in industrial and commercial areas.

10.3 Measureable Goals

The COA has developed the following measureable goals and/or information to be provided in the Annual Report to correspond with the existing and/or proposed BMPs discussed above:

- An annual assessment of the Floatables Program will be conducted to evaluate the need for structural controls. The assessment will include a review of all documents and procedures associated with waste management and stormwater, a review of the findings of quarterly inspection reports, and a recommendation whether or not to propose structural controls as a corrective action (if necessary).
- A reporting of the volume of material collected from the streets and arroyos.

10.4 Anticipated Program Development and Implementation Schedule [MS4 Table 7]

Table 0-1. Control of Floatable Discharges Program Implementation Schedule

Activity	Required Implementation Date	Implementation Status
Develop Implementation Schedule [I.D.5.f(i)(a)]	6/21/2016	Completed
Estimate Annual Floatables Volume [I.D.5.f(i)(b)]	6/21/2017	Ongoing
Update the SMWP and Submit Annual Report [I.D.5.f(ii) and (iii)]	December 1 each year (first due 1201/2016)	Ongoing

10.5 Performance Assessment

The COA has completed required program elements under the Floatable Program and continues to make program improvements.

11. Public Education and Outreach Program [MS4 Part I.D.5.g]

11.1 Requirement Descriptions and Cooperative Status

Permittees are required to develop, revise, implement, and maintain a comprehensive stormwater program to educate the community, employees, businesses, and the general public about: the hazards associated with the illegal discharges and improper disposal of waste; the impact that stormwater discharges have on local waterways; and the actions the public can take to reduce pollutants in stormwater.

The COA will comply with all of the requirements of the MS4 Permit, cooperates to the extent practicable for each program element, and is a member of the Middle Rio Grande Storm Water Quality Team (MRGSWQT).

11.2 Mechanisms Used to Comply with Permit Requirements (BMPs)

11.2.1 Development of an Education and Outreach Program [MS4 Parts I.D.5.g(i) and (ii)]

The COA will implement an education and training program with the following objectives [I.D.5.g(i)(a)]:

- To teach City employees about the impacts of stormwater discharges on surface water bodies.
- To train City employees how to reduce pollutants in stormwater runoff while performing their job duties, as well as at home.
- To educate school children about the impacts of stormwater discharges on surface water bodies and teach them how to reduce pollutants in stormwater runoff at home.

Parts I.D.5.g(i)(b) and (e) of the MS4 Permit require development of educational materials. The COA already uses (and will continue to use) the following materials:

- The Department of Municipal Development has a website for access by COA employees and the public that contains basic regulatory requirements pertaining to the protection of stormwater quality, training information, and a contact from the Storm Drainage Department.
- The COA distributes informational letters and brochures to local businesses and community members to address new ordinances, illicit discharges, or other issues of concern.
- Parks and Open Space staff host community clean-up days in the spring of each year in an effort to promote the importance of reducing floatables and debris.
- Parks and Open Space staff work with schools to engage youth in restoration efforts in the Bosque and along trails.
- In addition, the COA is a member of the MRGSWQT, a group formed in 2003 to address county-wide stormwater quality issues. This group has expanded to encompass issues facing the Middle Rio Grande watershed.
- The MRGSWQT funds classroom and field education programs, media campaigns, printed materials including brochures, public presentations/events, giveaways, display booth/kiosk, signage at select locations, website (www.KeeptheRioGrand.org), and Facebook page.

The following educational elements are a part the COA's educational program:

- The COA is an active participant with the MRGSWQT cooperative. The COA will continue to collaborate with the MS4 permittees to improve upon the existing public education and outreach program.
- The MRGSWQT has a local Public Relations consulting firm under contract to provide public education and outreach on stormwater impacts. Included in their scope is to provide an Outcomes Report to summarize the yearly outreach activities through different media and methods, target audiences and an estimate of people reached.
- Target pollutants include pet waste and trash/debris. These pollutants were chosen on the basis of studies conducted in the previous permit cycle.
- The COA has participated and hosted presentations and trainings on construction and the CGP.
- The COA has participated in presentations on GI/LID.
- The COA has participated and given presentations at the EPA Region 6 Stormwater conferences on IDDE, Industrial inspection, and good housekeeping programs.
- Information about proper septic system maintenance, proper use and disposal of fertilizers and pesticides, protection and restoration of riparian vegetation, and proper disposal of motor oil and household hazardous wastes is available on the MRGSWQT website and COA website [I.D.5.g(i)(c) and I.D.5.g(viii)(i)].
- Information on how to become involved in local stream restoration and watershed cleanup activities [I.D.5.g(i)(d)].
- Information about litter reduction, recycling, reduction of pesticide/herbicide use, xeriscaping and reduced water consumption is available from the ABCWUA and COA websites [I.D.5.g(v)(b)].
- Information about pet waste and solid waste management [I.D.5.g(viii)(h) and I.D.5.g(viii)(k)].

Educational materials targeted towards City employees will focus on how job duties can impact stormwater quality. Outreach activities (and associated materials), such as the stormwater/watershed model demonstration, will be age-appropriate for grade-school children, and focus on how residential activities can impact stormwater quality [I.D.5.g(i)(f)].

11.3 Measureable Goals

The COA has developed the following measureable goals and/or information to be provided in the Annual Report to correspond with the existing and/or proposed BMPs discussed above:

- The informational brochures and website will be reviewed and updated annually to ensure regulatory and contact information is current, and to respond to the educational and training needs of the targeted audiences.
- The COA will contribute and participate in the MRGSWQT.
- The COA will continue to conduct education and outreach presentations to the community specific to water quality.
- A reporting of the activities carried out will be summarized in the Annual Report.

11.4 Anticipated Program Development and Implementation Schedule [MS4 Table 8]

Table 0-1. Public Education and Outreach Program Implementation Schedule

Activity	Required Implementation Date	Implementation Status
Develop Program [I.D.5.g(i) and (ii)]	2/20/2016	Completed
Update the SWMP and Submit Annual Report [I.D.5.g(iii) and (iv)]	December 1 each year (first due 12/01/2016)	Ongoing
Enhance Program to include applicable elements of Parts I.D.5.g(v) through (viii)	update as necessary / applicable	Ongoing

11.5 Performance Assessment

The COA has completed program elements and continues to develop the Public Education and Outreach Program.

12. Public Involvement and Participation Program [MS4 Part I.D.5.h]

12.1 Requirement Descriptions and Cooperative Status

Permittees are required to develop, revise, implement and maintain a program to encourage public involvement and provide opportunities for participation in the review, modification and implementation of the SWMP Plan. Permittees are required to make the SWMP Plan available to the public and to other MS4 operators or Tribal authorities receiving discharges from the MS4, and develop and implement a process by which public comments are received and reviewed by the entities responsible for the SWMP.

The COA will comply with all of the requirements of the MS4 Permit, and cooperates to the extent practicable for each program element, and is a member of the MRGSWQT.

12.2 Mechanisms Used to Comply with Permit Requirements (BMPs)

12.2.1 Development of a Public Involvement and Participation Program [MS4 Parts I.D.5.h(ii), (iii) and (viii)]

The Public Involvement and Participation Program will 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 other such provisions as appropriate.

The COA will notify the public via legal notice in the Albuquerque Journal for a period of 30 days, prior to the submission of the NOI. The SWMP Plan and each Annual Report (and associated SWMP Plan revision) are all posted on the COA website for public comment.

In accordance with Part I.D.5.h(viii), a copy of each public notice, a copy of the MS4 Permit and the applicable documents (i.e., NOI, Annual Report, SWMP Plan, etc.) will be maintained up-to-date at on the COA website and at www.KeeptheRioGrand.org website. Current documents associated with the COA's MS4 Permit coverage will be posted to and maintained on this website throughout the Permit term.

Comments received by COA in response to any public comment period will be reviewed and considered for incorporation into the applicable document (NOI, Annual Report, SWMP Plan, etc.). The comments and a summary of COA responses will be submitted to EPA.

Part I.D.5.h(iii)(b) of the Permit requires the COA to perform "one assessment of public behavioral change following a public education and/or participation event". In compliance with this requirement, the COA will continue to distribute and collect surveys filled out by the public at community events that have been designed to gauge their involvement in issues regarding watershed health.

As necessary, pursuant to Part I.D.5.h(iii)(c) of the Permit, the COA will solicit involvement from the Technical Advisory Group (TAG) for the Middle Rio Grande Watershed MS4 Permit. The TAG is comprised of MS4 Permittees and meets on a routine basis to discuss technical and regulatory aspects

of compliance with the MS4 Permit (see Memorandum of Agreement included in Appendix P of this SWMP Plan).

Various departments of the COA retain volunteers for stormwater pollution prevention activities and awareness throughout the area, as required by Part I.D.5.h(iii)(d). The COA makes presentations at the Watershed Protection Advisory Board about the MS4 Permit and COA compliance activities.

12.2.2 Plan to Comply with State, Tribal and Local Notice Requirements [MS4 Part I.D.5.h(iv)]

The COA will comply with State, Tribal, and local public notice requirements when implementing a public involvement/ participation program.

12.2.3 Open Public Process [I.D.5.h(v)]

The Public Involvement and Participation Program is not intended to be limited to any specific economic or ethnic groups. Public notices will be printed in a newspaper of general circulation in the Albuquerque area (i.e., The Albuquerque Journal) and be available online.

12.3 Measureable Goals

The COA has developed the following measureable goals and/or information to be provided in the Annual Report to correspond with the existing and/or proposed BMPs discussed above:

- Comments received by the public in response to any and all public notices will be considered and maintained with the SWMP Plan for the duration of the Permit term.
- The COA will continue to conduct surveys of the public at community events.

12.4 Anticipated Program Development and Implementation Schedule [MS4 Table 9]

Table 12-1. Public Involvement and Participation Program Implementation Schedule

Activity	Required Implementation Date	Implementation Status
Develop Program [I.D.5.h(ii) and (iii)]	12/23/2015	Completed
Comply with State, Tribal, and Local Public Notice Requirements [I.D.5.h(iv)]	2/20/2016	Completed
Include elements of Part I.D.5.h(v)	6/21/2016	Completed
Update the SWMP and Submit Annual Report [I.D.5.h(vi), (vii) and (viii)]	December 1 each year (first due 12/01/2016)	Ongoing
Enhance Program to include elements of Part I.D.5.h(ix)	Update as necessary/applicable	Ongoing

12.5 Performance Assessment

The COA has completed program elements and continues to expand Public Participation Program elements.

13. Comprehensive Monitoring and Assessment Program [MS4 Part III.A]

13.1 Program Objectives [MS4 Part III.A]

This monitoring and assessment program is designed to meet the following objectives related to the COA MS4:

- Assess compliance with the MS4 Permit.
- Assess the effectiveness of the COA's SWMP.
- 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 COA MS4.
- Assess the overall health and evaluate long-term trends in receiving water quality.

The COA is a member of the Compliance Monitoring Cooperative (CMC) program along with 12 other agencies in the Middle Rio Grande. The COA will comply with all of the requirements of the MS4 Permit. Monitoring data may be shared with other MS4s to help understand impacts on receiving waters. The sharing of data shall not be construed as evidence of the existence of a cooperative program or a shared responsibility for meeting Permit requirements.

For the purposes of this SWMP Plan and to be consistent with the intent of the MS4 Permit, "monitoring" and "sampling" are synonymous terms that mean the sampling and visual observation of stormwater discharges, including the related preparation and documentation tasks.

13.2 Monitoring Locations [MS4 Part III.A.1.a(ii)]

Rio Grande (NORTH)- In stream sampling within the Rio Grande will be performed upstream of the Angostura Diversion Dam at the north end of the water shed (upstream or background).

Rio Grande (Central) – In stream sampling within the Rio Grande will be performed at Central Ave for *E. coli*.

Rio Grande (SOUTH) – In stream sampling within the Rio Grande will be performed at the Isleta Diversion Dam at the south end of the watershed and downstream of all inputs from the Urban Area to the river to provide the downstream water conditions.

These locations have been identified and are proposed to meet the permit requirements as identified in Part III.A. These up and down stream sample locations capture all inputs to the river within the Urbanized Area.

Locations along the ephemeral channels entering the urbanized area were not selected for sampling locations due to logistical issues with responding to storm events in a timely fashion upstream of the urbanized area. Due to the nature of the storms in the Middle Rio Grande, the time frame needed to identify a storm event, mobilize manpower to an upstream location would prove logistically challenging. The typical storm event is of high intensity and short duration, making it challenging to obtain the needed samples. The usage of automated sampling on ephemeral, natural channels is also logistically

challenging. Due to the nature of the channels, the flow path of the runoff varies along the floor of the channel. Placement of automated sampling equipment within this type of environment is extremely challenging and can lead to loss of equipment due to the variations in flow paths.

13.2.1 Changes to Monitoring Locations [MS4 Part III.A.1.g]

Alternate monitoring locations may be substituted for just cause during the term of the MS4 Permit. Requests for approval of an alternate monitoring location(s) will 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(s) may commence thirty days from the date of the request. At least six samples are required to be collected during the first year of monitoring at the substitute monitoring location(s). In the event that there are less than six events where a sample was able to be collected, it will be documented for reporting purposes.

13.3 Wet Weather Monitoring [MS4 Parts III.A.1 and III.A.5.a]

Wet weather monitoring will be conducted during both the wet season and dry season at the sampling locations identified in Section 13.2 of this SWMP Plan. The wet season occurs between July 1 and October 31, and the dry season occurs between November 1 and May 31. Wet weather monitoring is required to be conducted for a minimum of seven events during the Permit term (December 22, 2014 through December 19, 2019) of which at least three events occur during the wet season and two events occur during the dry season. Wet weather monitoring will be performed when the magnitude of a storm event is greater than 0.25 inches with no antecedent dry period occurs anywhere in the watershed that creates a discharge to the Rio Grande.

Typical precipitation events in the Middle Rio Grande Basin are brief, intense, and highly localized. Stormwater flow may occur far from an actual rain event, and the water quality of the flow may have little to do with pollutants originating within the MS4.

The CMC maintain a network of rain gauges at within the MS4, specifically at stormwater sampling points. Sources for determining a qualifying storm event may include, CoCoRahs, wundermap.com data, calibrated National Weather Service radar, and/or USGS weather data based on rainfall measurements taken within the watershed. If the sources register 0.25 inches of precipitation (i.e., a qualifying event), wet weather sampling at the points detailed in the Sampling Plan attached in Appendix N will be performed. The CMC MS4 sampling points are identified on maps in Appendix B of this SWMP Plan.

Samples will be collected using the grab sample option described in Part III.A.1.c of the Permit by field crews. The grab samples will be collected in equal volumes and composited in equal portions in the field. Field measurements of temperature, pH, conductivity, and DO will be measured in each subsample container and in the composited sample. The composited sample will be preserved (as appropriate) and processed before shipment to the appropriate laboratory. Wet weather monitoring constituents required in the Permit, along with acceptable analytical methods (from 40 CFR Part 136) and their associated hold times are listed in Table 13-1 below. Limitations that may affect the retrieval time of the auto-collected samples, compositing methods, and laboratory analysis are discussed below in Section 13.3.1.

Wet weather monitoring will also consist of determining flow rates during the discharge event so that the total daily discharge can be determined. Daily discharge volumes will be used to calculate the *E. coli* waste load for evaluation of TMDL compliance. A discussion of flow measurements, waste loads, and TMDLs is provided in Section 2.4 and Appendix E of this SWMP Plan.

Table 13-1. Wet Weather Monitoring Parameters, Analytical Methods, MQLs, and Hold Times

Parameter	Analytical Method	MQL (mg/L)	Hold Time
pH	field meter	--	15 minutes
Temperature	field meter	--	15 minutes
Conductivity	field meter	--	15 minutes
DO	field meter	5.0[a]	15 minutes
TSS	SM 2540 D	100[a]	7 days
TDS	SM 2540 C	1500[a]	7 days
COD	EPA 410.4	120[b]	28 days
BOD_5	SM 5210 B	30[b]	48 hours
Oil and Grease	SM 1664 A	15[b]	28 days
E. coli	SM 9223 B	47[a] cfu/100mL	6 hours
TKN (Total Ammonia + Organic Nitrogen)	SM 4500	2[a]	28 days
Nitrate + Nitrite	EPA 300.0	132[a]	28 days
Dissolved Phosphorous	SM 4500	2.0[b]	14 days
Total Phosphorous	SM 4500	2.0[b]	14 days
PCBs	EPA 1668	0.00064[a] µg/L	1 year
Gross Alpha	SM 7110 B	15[a] pCi/L	6 months

[a]No established MQL for the analytical method has been established. The values in this table reflects the water quality standards listed in Section 2.1

[b]No established MQL for the analytical method listed has been established. There are no water quality standards for this constituent either. The value listed is an EPA "benchmark" value indicating levels EPA considers having the potential to impair water quality.

13.3.1 Sampling Limitations

13.3.1.1 Safety

The CMC adheres to strict safety procedures when performing work. Wet season storm events in Albuquerque are typically accompanied by lightning and flash flooding of stormwater drainage areas (e.g, conveyance channels, arroyos, etc.). Safety procedures prohibit worker exposure to such situations; therefore it may not be possible to retrieve grab samples at perfect ideal times, but will be collected as soon as it is safe to do so or during the next qualifying storm event.

13.3.1.2 Business Hours

Samples will be collected during normal business hours – Monday through Friday, 7:30 am to 5:00 pm. Additionally, workers that conduct stormwater monitoring are not required to work on the following observed holidays: Memorial Day; Independence Day; Labor Day; Thanksgiving Day; Christmas Day and New Year's Day.

The field team is staffed with multiple technicians; however, the inability to collect samples during normal business hours due to unexpected circumstances (e.g., sick/personal leave, inclement weather, tribal access restrictions) is possible. Should this occur, grab samples will be retrieved during the next qualifying storm event.

13.3.1.3 Stormwater Flow Duration and Sample Volume

Stormwater from wet season storm events has a tendency to flow with high velocity at high volumes for a short period of time. It is anticipated that the collection of four grab samples collected a minimum of 15 minutes apart (as required by the Permit) will be a challenge. Should fewer than four grab samples be collected, subsamples of equal volumes will be composited in equal portions in the field while achieving the minimum volume for laboratory analysis of all parameters. In the event that the volume of a subsample is inadequate to achieve the minimum volume for laboratory analysis, it will be discarded and not incorporated as part of the composite sample. In the event that the volume of a composite sample is inadequate to achieve the minimum volume for laboratory analysis, the list of required parameters may be divided over multiple storm events.

13.3.1.4 E. coli

E. coli has a holding time of six hours. Laboratories contracted to conduct *E. coli* analysis operate on standard business hours of Monday through Friday, 8:00 am to 5:00 pm. Should a storm event create a stormwater discharge at a period when timely sample retrieval is not possible or on a Friday afternoon, the retrieval, processing and delivery of the collected sample to the laboratory may not occur within the maximum hold time. However, the sample may be submitted to the laboratory for analysis, or *E. coli* may be analyzed in stormwater from another storm event.

13.3.1.5 Documentation

In the event any of the above limitations occur, the COA will document such occurrences on a Discharge Monitoring Report (DMR), Annual Report or SWMP Plan revision, as applicable.

13.3.2 Anticipated Program Development and Implementation Schedule [MS4 Table 10]

Table 13-2. Wet Weather Monitoring Implementation Schedule

Activity	Required Implementation Date	Status or Anticipated Completion Date
Submit Wet Weather Monitoring Preference	06/22/2015	Completed
Submit Detailed Description of Monitoring Scheme	12/23/2015	Completed
Submit Certification that Sampling Sites are Operational; Begin Sampling	6/21/2016	Completed
Update SWMP and Submit Annual Report	December 1 each year (first due 12/01/2016)	Ongoing

13.3.3 Contingency Plan [MS4 Parts III.A.1.h]

If the results from wet weather monitoring indicate that the COA MS4 is contributing to instream Water Quality Standard (WQS) exceedances, then additional monitoring locations will be established to determine the potential source(s) of contamination. The locations of the additional wet weather monitoring stations will be submitted to EPA and NMED for approval, and the SWMP updated to reflect their addition.

13.4 Dry Weather Discharge Screening [MS4 Part III.A.2]

Dry weather monitoring will be conducted to identify, investigate, and address areas that may be contributing contaminants to the COA MS4 as a result of discharges that occur without the direct influence of storm events (i.e., illicit discharge, allowable non-stormwater discharges). Dry weather screening will be conducted in conjunction with the Illicit Discharge Detection and Elimination Program described in Section 9 of this SWMP Plan.

The entire COA MS4 will be screened at least once every five years and any identified high priority areas (where known illicit discharges are occurring) at least once every year. Currently thirty-seven locations are screened during the dry season which typically occurs from November thru April.

13.5 Floatable Monitoring {MS4 Part III.A.3]

Floatable monitoring will be conducted as described in Section 10 of this SWMP Plan. The details and results associated with floatables monitoring will be maintained in Section 10.

13.6 Analytical Methods [MS4 Parts III.A.5.b and IV.Q]

Analysis of all samples (i.e., wet weather, dry weather, and IDDE) will be done in accordance with the methods specified in 40 CFR 136. Analytical results will be reported with minimum quantification levels (MQLs) at or below those listed in Appendix E of the MS4 Permit, as applicable. Parameters, analytical methods, MQLs, and holding times are listed in Table 13-1 above.

13.7 Additional Monitoring by the Permittee [MS4 Part IV.T]

Should the approved sampling locations for the COA MS4 be monitored more frequently than required by the Permit, using test procedures approved under 40 CFR §136 or as specified in the Permit, the results shall be included in the calculation and reporting of the data submitted in the DMR. Such increased monitoring frequency shall also be indicated on the DMR.

13.8 Recording of Monitoring Results and Maintaining Records [MS4 Part IV.P]

The recording and maintenance of monitoring results is discussed in Section 16 of this SWMP.

13.9 Reporting of Monitoring Results [MS4 Part III.D]

Monitoring results are reported with the Annual Reports. Submission of Annual Reports, DMRs and SWMP revisions are discussed in Section 14 of this SWMP. Section 15 of this SWMP includes additional reporting requirements regarding: items for compliance with Permit requirements associated with WQS (MS4 Part I.C.1) and TMDLs (MS4 Part I.C.2); monitoring scheme and certifications required in Part III.A.1; modifications to monitoring locations; and all other reports.

14. Annual Report [MS4 Part III.B]

Annual Reports, including DMRs, will be submitted by December 1 each year, and will report on the monitoring period of July 1 through June 30. The suggested Annual Report form is located at http://epa.gov/region6/water/npdes/sw/ms4/index.htm.

The first Annual Report for the COA MS4 was due on December 1, 2016, and covered the reporting period of July 1, 2015 through June 30, 2016. The first and fourth Annual Reports (due December 1, 2016 and December 1, 2019) will include the submittal of a complete SWMP Plan revision.

14.1 SWMP Implementation Status [MS4 Part III.B.1]

Each Annual Report will include a section addressing SWMP implementation status. The section will describe the status of compliance with all schedules established under the MS4 Permit, and the status of actions required in Parts I, III, and VI of the Permit.

14.2 SWMP Revisions [MS4 Part III.B.2]

Revisions to the SWMP Plan will be included in the Annual Report. Revisions will include any reassessment of or changes to control measures and BMPs reported in the NOI. A cumulative list of SWMP Plan revisions will be maintained.

14.3 Performance Assessment [MS4 Part III.B.3]

Each Annual Report will include an assessment of performance of the SWMP and overall compliance with the MS4 Permit. The assessment will include:

- An evaluation of performance in terms of measureable goals, including, but not limited to, a description of number and nature of enforceable actions and inspections, public education, and public involvement aspects of the SWMP.
- A summary of the data that are accumulated throughout the monitoring period (July 1 through June 30). Data will include water quality monitoring results, calculated waste loads, floatables monitoring results, illicit discharge detections, and any other quantitative measures of performance.
- Identification of water quality degradations or improvements.

14.4 Annual Expenditures [MS4 Part III.B.4]

Tracking and reporting of annual expenditures is required for Class A permittees. The COA is reporting the annual expenditures in the Annual Report.

14.5 Cooperative Responsibilities [MS4 Part III.B.5]

The MS4 Permit requires Permittees participating in a cooperative program to share responsibility for preparation and contents of the Annual Report. The COA shares applicable data with other MS4 permittees as required in the MS4 Permit and as necessary to meet the reporting requirements of the Annual Report. In some instances, the COA may refer EPA to another permittees Annual Report for the data or report in order to prevent miscommunication of the data and duplicative efforts in reporting.

14.6 Public Notice and Comments [MS4 Part III.B.6]

A minimum of 45 days prior to submission of each Annual Report, the COA will provide public notice and make a copy of the draft Annual Report and SWMP Plan revision available for public review and

comment. All public comments received will be reviewed and considered for incorporation into the final Annual Report and SWMP Plan.

14.7 Signature Requirements [MS4 Part III.B.7]

Annual Reports 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. Section 18 of this SWMP Plan includes more detail on signature requirements and notes authorized designees, as applicable.

14.8 Submission of DMRs, Annual Reports and SWMP Revisions [MS4 Part III.D]

Monitoring results (Parts III.A.1 III.A.3, and III.A.5.e) obtained between July 1 and June 30 will be submitted on DMRs along with the Annual Report. The DMR forms will be provided by EPA following approval of the Comprehensive Monitoring and Assessment Program for the COA MS4. A separate DMR is required for each of the two monitoring seasons; the wet season (July 1 through October 31) and the dry season (November 1 through June 30).

Signed copies of the DMRs, Annual Reports and revised SWMP Plans will be submitted electronically to R6_MS4Permits@epa.gov. DMRs, Annual Reports, and revised SWMP Plans will also be submitted (in hard copy unless otherwise requested) to NMED and the Pueblo of Isleta.

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

Pueblo of Isleta
Attn: Ruben Lucero, Environmental Division Manager
P.O. Box 1270
Isleta, NM 87022

15. Additional Reporting [MS4 Part III.D]

Submission of Annual Reports, DMRs and SWMP Plan revisions is discussed in Section 14 of this SWMP Plan.

Requests for SWMP updates, modifications to monitoring locations or an application for an individual MS4 Permit will be submitted to EPA at the address below.

U.S.EPA Region
Water Quality Protection Agency
Operations Support Office (6WQ-O)
1201 Elm Street
Dallas, TX 75270

The submission of NOTs, requests for SWMP updates, items for compliance with Permit requirements associated with WQS (MS4 Part I.C.1) and TMDLs (MS4 Part I.C.2), monitoring scheme and certifications required in Part III.A.1, modifications to monitoring locations, and all other reports will also be submitted (in hard copy unless otherwise requested) to NMED and the Pueblo of Isleta.

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

Pueblo of Isleta
Attn: Ruben Lucero, Environmental Division Manager
P.O. Box 1270
Isleta, NM 87022

15.1 Anticipated Non-Compliance [MS4 Part IV.X]

The COA will provide advance notice to EPA and NMED of any planned changes or activity which may result in noncompliance with the MS4 Permit.

16. Records

16.1 Recordkeeping [MS4 Part IV.P]

The following records and documentation will be maintained for the COA MS4:

- Monitoring Information
  - Date, time, location of sampling event or measurement
  - Initials or name of individuals performing the sampling
  - Date and time analyses were performed
  - Initials or names of individuals who performed the analyses
  - References and written procedures for analytical methods used
  - Results of analyses, including bench sheets or instrument readouts
  - Calibration and maintenance records
- Reports
- DMRs
- Permit NMR04A000
- Data used to complete the NOI, if applicable
- NOI(s)
- SWMP
- All information and determinations used to document permit eligibility under Part I.A.5.f and Part I.A.3.b of the Permit.

Records will be maintained for the duration of the Permit term or five years from the time of generation, whichever is longer. Following a review, all records, data, and documents will be made available to EPA and the public, upon written request.

16.2 Records Retention [MS4 Part I.D.7]

The COA will maintain SWMP records developed in accordance with Part I.D, Part IV.P, and Part IV for at least five years after Permit coverage is terminated or coverage under the Permit expires.

17. References

New Mexico Water Environment Department, November 1, 2018. 2018-2020 State of New Mexico Clean Water Act 303(d)/305(b) Integrated Report, Appendix A – List of Assessed Surface Waters, https://www.env.nm.gov/wp-content/uploads/2018/03/Appendix-A-Integrated-List.pdf.

New Mexico Water Quality Control Commission, October 12, 2000. Water Quality Standards for Interstate and Intrastate Surface Waters; 20.6.4 NMAC. http://water.epa.gov/scitech/swguidance/standards/wqslibrary/upload/nmwqs.pdf

Pueblo of Isleta, March 18, 2002. Pueblo of Isleta Surface Water Quality Standards, Tribal Resolution 02-064. http://water.epa.gov/scitech/swguidance/standards/upload/2005_12_14_standards_wqslibrary_tribes_isleta_6_wqs.pdf

U.S. Bureau of Reclamation (Water Resources Research Laboratory), 2001. Flow Measurement Manual, 3rd Edition. http://www.usbr.gov/pmts/hydraulics_lab/pubs/wmm/

U.S. EPA, June 30, 2010. U.S. EPA Approved Total Maximum Daily Loads for the Middle Rio Grande Watershed. http://www.nmenv.state.nm.us/swqb/documents/swqbdocs/MAS/TMDLs/MRG/Online/USEPA-ApprovedMRG_TMDL06-30-10.pdf

U.S. EPA, November 18, 2014. 2014-2016 State of New Mexico Clean Water Act §303(d)/§305(b) Integrated Report, Appendix A. http://www.nmenv.state.nm.us/swqb/303d-305b/2014-2016/2014-2016NMList.pdf

18. Certifications [MS4 Parts IV.H and III.C]

Pursuant to Parts I.B.2.l and I.A.6.a(v) of the MS4 Permit, the NOI will be signed and certified in accordance with Parts IV.H.1 and 4 of the Permit, by a principal executive officer for the corporation or agency. Signature for the NOI may not be delegated to a lower level. Similarly, pursuant to I.A.6.b(iii) of the MS4 Permit, the NOT will be signed and certified in accordance with Part IV.H.1 of the Permit, by a principal executive officer for the corporation or agency.

Annual Reports 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. [Part III.B.7]

All DMRs, SWMPs, reports, certifications, or information either submitted to EPA, or that the MS4 Permit requires the Permittee to maintain, will be signed and certified in accordance with Part IV.H of the Permit as follows:

- Signature shall be of a principal executive officer or authorized designee.
- The authorized designee can be either a specific person or corporate position having responsibility for the overall operation of the regulated facility, such as position of manager or position having responsibility for the environmental matters for the corporation or agency.
- Authorization of the designee must be made in writing and submitted.

18.1 Delegation of Authority

As individuals or positions are authorized as signatory designees for the City of Albuquerque, their names or positions will be identified in a letter(s) of authorization. A copy of the letter(s) will be provided to EPA as well as maintained in Appendix O of the SWMP Plan.

18.2 City of Albuquerque Certifying Signature for SWMP dated December 1, 2019

CITY OF ALBUQUERQUE

"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."

Name: _Sarita Nair_____ Title: Chief Administrative Officer, City of Albuquerque

Signature: _____ Date: _____

APPENDICES – APPENDICES ARE AVAILABLE FOR REVIEW UPON REQUEST

Compact Disc (CD) of selected appendices

Appendix A:	A-1: MS4 Permit No. NMR04A000
	A-2: April Modification Letter
	A-3: February Modification Letter
Appendix B:	B-1: MSGP facility locations
	B-2: COA Outfall locations
	B-3: CMC Sample locations
Appendix C:	C-1: NOI
	C-2: Public Notice
	C-3: Coverage Authorization
Appendix D:	D-1: Nutrient Study
	D-2: Sediment Study
Appendix E:	Water Quality Standards, TMDLs, §303(d) List, WLA Letter
Appendix F:	Supporting Documents for Construction Site Runoff Control Program
Appendix G:	Supporting Documents for Post-Construction Stormwater Management Program
Appendix H:	Supporting Documents for Pollution Prevention / Good Housekeeping Program
Appendix I:	Supporting Documents for Industrial and High Risk Runoff Program
Appendix J:	Supporting Documents for Illicit Discharge Detection and Elimination Program
Appendix K:	Supporting Documents for Control of Floatable Discharges Program
Appendix L:	Supporting Documents for Public Education and Outreach Program
Appendix M:	Supporting Documents for Public Involvement and Participation Program
Appendix N:	Supporting Documents for Monitoring Program
	N-1: COA Sampling Certification