

Town of Bernalillo

NPDES Stormwater Program MS4 Annual Report 2023

Reporting Period:

July 1, 2022 – June 30, 2023

TABLE OF CONTENTS

1. 2022 Annual Report Cover Letter
2. MS4 Annual Report Format
3. Memorandum of Understanding for NetDMR data entry by AMAFCA on behalf of the Town of Bernalillo
4. Summary Memorandum and Sample Results for 2022-2023 Wet Season Monitoring
5. Stormwater Management Plan Adopted
6. Stormwater Ordinance Passed for Town of Bernalillo
7. Storm Water Quality Team Outcome Report – FY 2022-2023
8. Technical Advisory Group – Cooperative Agreement
9. Stormwater Quality Team – Cooperative Agreement
10. Compliance Monitoring Cooperative – Cooperative Agreement

December 29, 2023

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

RE: 2023 Annual Report, NPDES Permit No. NMR04A002

To Whom It May Concern:

The Town of Bernalillo is pleased to submit the 2022-2023 Annual Report for the NPDES Permit No. NMR04A000. The Town's permit tracking number, as assigned in our letter from EPA "Coverage Under Middle Rio Grande (MRG) Watershed Based Municipal Separate Storm Sewer System General Permit (NPDES No. NMR04A000) is NMR04A002. The report covers the period from July 1, 2022, to June 30, 2023.

Materials contained within this submittal include the Town's Annual Report complied using the EPA's suggested Annual Report Format, a 2022-2023 Annual Report Supplement, the Summary of Outcomes Report for the Mid Rio Grande Stormwater Quality Team, DMR forms for the reporting period, and memorandums developed on behalf of the Compliance Monitoring Cooperative for the wet season compliance sampling in 2022-2023 and the dry season compliance sampling in 2022-2023. EPA has authorized data entry of sample results for the Compliance Monitoring Cooperative to be entered into NetDMR by a single entity on behalf of other entities. A copy of the memorandum of understanding between the Town and AMAFCA as well as the letter from EPA authorizing this action are included in this report.

If you have further questions, please contact Troy Martinez at tmartinez@townofbernalillo.org or (505) 867-3311.

Sincerely,

TOWN OF BERNALILLO

Jack Torres
Mayor

Annual Report Format



National Pollutant Discharge Elimination System Stormwater Program MS4 Annual Report Format



Check box if you are submitting an individual Annual Report with one or more cooperative program elements.

Check box if you are submitting an individual Annual Report with individual program elements only.

Check box if this is a new name, address, etc.

1. MS4(s) Information

NMR04A002 Town of Bernalillo

Name of MS4

Troy

Martinez

Public Works Director

Name of Contact Person (First)

(Last)

(Title)

(505) 867-3311

tmartinez@townofbernalillo.org

Telephone (including area code)

E-mail

PO Box638

Mailing Address

Bernalillo

NM

87004

City

State

ZIP code

What size population does your MS4(s) serve?" 10,000

NPDES number NMR04A002

What is the reporting period for this report? (mm/dd/yyyy) From Jul 1, 2022 to Jun 30, 2023

2. Water Quality Priorities

A. Does your MS4(s) discharge to waters listed as impaired on a state 303(d) list? Yes No

B. If yes, identify each impaired water, the impairment, whether a TMDL has been approved by EPA for each, and whether the TMDL assigns a wasteload allocation to your MS4(s). Use a new line for each impairment, and attach additional pages as necessary.

Impaired Water	Impairment	Approved TMDL		TMDL assigns WLA to MS4	
		Yes	No	Yes	No
Rio Grande, HUC13020203	E-coli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rio Grande, HUC13020203	PCB in Fish Tissue	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rio Grande, HUC13020203	PCB in Water Column	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rio Grande, HUC13020203	Gross Alpha	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2. B. Continued

Impaired Water	Impairment	Approved TMDL		TMDL assigns WLA to MS4	
<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No

C. What specific sources contributing to the impairment(s) are you targeting in your stormwater program?

Pet waste, floatables, illicit discharges

- D. Do you discharge to any high-quality waters (e.g., Tier 2, Tier 3, outstanding natural resource waters, or other state or federal designation)? Yes No
- E. Are you implementing additional specific provisions to ensure their continued integrity? Yes No

3. Public Education and Public Participation

- A. Is your public education program targeting specific pollutants and sources of those pollutants? Yes No
- B. If yes, what are the specific sources and/or pollutants addressed by your public education program?

Pet Waste, floatables, illicit discharges

C. Note specific successful outcome(s) (e.g., quantified reduction in fertilizer use; NOT tasks, events, publications) fully or partially attributable to your public education program during this reporting period.

See Summary Report from the Middle Rio Grande Storm Team

- D. Do you have an advisory committee or other body comprised of the public and other stakeholders that provides regular input on your stormwater program? Yes No

4. Construction

- A. Do you have an ordinance or other regulatory mechanism stipulating:
- Erosion and sediment control requirements? Yes No
 - Other construction waste control requirements? Yes No
 - Requirement to submit construction plans for review? Yes No
 - MS4 enforcement authority? Yes No
- B. Do you have written procedures for:
- Reviewing construction plans? Yes No
 - Performing inspections? Yes No
 - Responding to violations? Yes No
- C. Identify the number of active construction sites \geq 1 acre in operation in your jurisdiction at any time during the reporting period.
- D. How many of the sites identified in 4.C did you inspect during this reporting period?
- E. Describe, on average, the frequency with which your program conducts construction site inspections.

Town of Bernalillo funded projects sites are inspected by a qualified contractor required by the General Construction Permit.

F. Do you prioritize certain construction sites for more frequent inspections? Yes No

If Yes, based on what criteria?

G. Identify which of the following types of enforcement actions you used during the reporting period for construction activities, indicate the number of actions, or note those for which you do not have authority:

Yes "Notice of violation" 0 No Authority

Yes "Administrative fines" 0 No Authority

Yes Stop Work Orders 0 No Authority

Yes Civil penalties 0 No Authority

Yes Criminal actions 0 No Authority

Yes Administrative orders 0 No Authority

Yes Other

H. Do you use an electronic tool (e.g., GIS, data base, spreadsheet) to track the locations, inspection results, and enforcement actions of active construction sites in your jurisdiction? Yes No

I. What are the 3 most common types of violations documented during this reporting period?

No violations occurred

J. How often do municipal employees receive training on the construction program?

As Needed

5. Illicit Discharge Elimination

A. Have you completed a map of all outfalls and receiving waters of your storm sewer system? Yes No

B. Have you completed a map of all storm drain pipes and other conveyances in the storm sewer system? Yes No

C. Identify the number of outfalls in your storm sewer system. "4"

4

D. Do you have documented procedures, including frequency, for screening outfalls? Yes No

E. Of the outfalls identified in 5.C, how many were screened for dry weather discharges during this reporting period?

4

F. Of the outfalls identified in 5.C, how many have been screened for dry weather discharges at any time since you obtained MS4 permit coverage?

4

G. What is your frequency for screening outfalls for illicit discharges? Describe any variation based on size/type.

Athena Pond is inspected weekly; other discharge points are inspected at least monthly.

H. Do you have an ordinance or other regulatory mechanism that effectively prohibits illicit discharges? Yes No

I. Do you have an ordinance or other regulatory mechanism that provides authority for you to take enforcement action and/or recover costs for addressing illicit discharges? Yes No

J. During this reporting period, how many illicit discharges/illegal connections have you discovered?

K. Of those illicit discharges/illegal connections that have been discovered or reported, how many have been eliminated?

L. How often do municipal employees receive training on the illicit discharge program?

6. Stormwater Management for Municipal Operations

A. Have stormwater pollution prevention plans (or an equivalent plan) been developed for:

- | | | |
|--|---|--|
| All public parks, ball fields, other recreational facilities and other open spaces | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| All municipal construction activities, including those disturbing less than 1 acre | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| All municipal turf grass/landscape management activities | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| All municipal vehicle fueling, operation and maintenance activities | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| All municipal maintenance yards | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| All municipal waste handling and disposal areas | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |

Other

B. Are stormwater inspections conducted at these facilities? Yes No

C. If Yes, at what frequency are inspections conducted?

D. List activities for which operating procedures or management practices specific to stormwater management have been developed (e.g., road repairs, catch basin cleaning).

None

E. Do you prioritize certain municipal activities and/or facilities for more frequent inspection? Yes No

F. If Yes, which activities and/or facilities receive most frequent inspections?

Public Works Yard

G. Do all municipal employees and contractors overseeing planning and implementation of stormwater-related activities receive comprehensive training on stormwater management? Yes No

H. If yes, do you also provide regular updates and refreshers? Yes No

I. If so, how frequently and/or under what circumstances?

All staff are encouraged to seek training on stormwater management practices.

7. Long-term (Post-Construction) Stormwater Measures

A. Do you have an ordinance or other regulatory mechanism to require:

- | | | |
|--|---|--|
| Site plan reviews for stormwater/water quality of all new and re-development projects? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| Long-term operation and maintenance of stormwater management controls? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Retrofitting to incorporate long-term stormwater management controls? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

B. If you have retrofit requirements, what are the circumstances/criteria?

None at this time.

C. What are your criteria for determining which new/re-development stormwater plans you will review (e.g., all projects, projects disturbing greater than one acre, etc.)?

All commercial projects and any development greater than 1 acre

D. Do you require water quality or quantity design standards or performance standards, either directly or by reference to a state or other standard, be met for new development and re-development? Yes No

E. Do these performance or design standards require that pre-development hydrology be met for:

- Flow volumes Yes No
- Peak discharge rates Yes No
- Discharge frequency Yes No
- Flow duration Yes No

F. Please provide the URL/reference where all post-construction stormwater management standards can be found.

G. How many development and redevelopment project plans were reviewed during the reporting period to assess impacts to water quality and receiving stream protection?

H. How many of the plans identified in 7.G were approved?

I. How many privately owned permanent stormwater management practices/facilities were inspected during the reporting period?

J. How many of the practices/facilities identified in I were found to have inadequate maintenance?

K. How long do you give operators to remedy any operation and maintenance deficiencies identified during inspections?

L. Do you have authority to take enforcement action for failure to properly operate and maintain stormwater practices/facilities? Yes No

M. How many formal enforcement actions (i.e., more than a verbal or written warning) were taken for failure to adequately operate and/or maintain stormwater management practices?

N. Do you use an electronic tool (e.g., GIS, database, spreadsheet) to track post-construction BMPs, inspections and maintenance? Yes No

O. Do all municipal departments and/or staff (as relevant) have access to this tracking system? Yes No

P. How often do municipal employees receive training on the post-construction program?

8. Program Resources

A. What was the annual expenditure to implement MS4 permit requirements this reporting period?

B. What is next year's budget for implementing the requirements of your MS4 NPDES permit?

C. This year what is/are your source(s) of funding for the stormwater program, and annual revenue (amount or percentage) derived from each?

Source: Amount \$ OR %

Source: Amount \$ OR %

Source: Amount \$ OR %

D. How many FTEs does your municipality devote to the stormwater program (specifically for implementing the stormwater program; not municipal employees with other primary responsibilities)?

E. Do you share program implementation responsibilities with any other entities? Yes No

Entity	Activity/Task/Responsibility	Your Oversight/Accountability Mechanism
Compliance Mon	Sampling and Monitoring Wet Weather	Signed Agreement
Stormwater Qual	Education and Outreach	Signed Agreement
Technical Advisor	Technical information Exchange	Signed Agreement

9. Evaluating/Measuring Progress

A. What indicators do you use to evaluate the overall effectiveness of your stormwater management program, how long have you been tracking them, and at what frequency? These are not measurable goals for individual management practices or tasks, but large-scale or long-term metrics for the overall program, such as macroinvertebrate community indices, measures of effective impervious cover in the watershed, indicators of in-stream hydrologic stability, etc.

Indicator	Began Tracking (year)	Frequency	Number of Locations
<i>Example: E. coli</i>	2003	Weekly April–September	20
E. Coli	2016	schedule defined in monitoring	2
PCBs	2016	schedule defined in monitoring	2
Gross Alpha	2016	schedule defined in monitoring	2

B. What environmental quality trends have you documented over the duration of your stormwater program? Reports or summaries can be attached electronically, or provide the URL to where they may be found on the Web.

In 2016, the segment of the Rio Grande that the Town discharges to was delisted for impairments for E.Coli

10. Additional Information

Please attach any additional information on the performance of your MS4 program, including information required in Parts I.C, I.D, and III.B. If providing clarification to any of the questions above, please provide the question number (e.g., 2C) in your response.

Certification Statement and Signature

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

Yes No

Federal regulations require this application to be signed as follows: **For a municipal, State, Federal, or other public facility:** by either a principal executive or ranking elected official.

Signature  Jack Torres, Mayor 12/29/2023
 Name of Certifying Official, Title Date (mm/dd/yyyy)

Courtyard I
7500 Jefferson St. NE
Albuquerque, NM
87109-4335

www.bhinc.com

voice: 505.823.1000
facsimile: 505.798.7988
toll free: 800.877.5332

MEMORANDUM

DATE: December 29, 2022

TO: Patrick Chavez, PE, AMAFCA

FROM: Sarah Ganley, PE, ENV-SP
Savannah Maynard
Emma Adams, EI

SUBJECT: **CMC Wet Season, Wet Weather Stormwater Monitoring Data Verification, Analysis Results Database, and Reporting Memo FY 2023 Wet Season (July 1, 2022 to October 31, 2022)**

Notification of In-Stream Water Quality Exceedances

For downstream notification purposes, the following parameters for in-stream samples taken in the Rio Grande for the FY 2023 wet season had results that exceeded applicable water quality standards (WQSs) for one or more samples: E. coli, polychlorinated biphenyls (PCBs), and gross alpha, adjusted. Table 1 summarizes the samples with exceedances and the applicable WQS that was exceeded. Additional details on the sampling results are provided in this memo.

**Table 1: Parameters Detected Above Applicable Water Quality Standards
CMC FY 2023 Wet Season Monitoring**

Sampling Date Location	Parameters, Applicable Water Quality Standard (WQS), and Results Exceeding Applicable WQS		
	E. coli	PCBs	Gross Alpha, Adjusted
	WQS: 88 MPN (CFU/100 mL) Pueblo of Isleta Primary Contact Ceremonial & Recreational	WQS: 0.00017 ug/L Pueblo of Isleta Human Health Criteria (based on fish consumption only)	WQS: 15 pCi/L Pueblo of Isleta and NM Domestic Water Supply & Livestock Watering Designated Uses
10/5/2022 Rio Grande North Angostura Diversion Dam Pre-Storm Sample – E. coli Only	135 MPN (CFU/100mL)	No Exceedance	No Exceedance

Table 1 (continued).

Sampling Date Location	Parameters, Applicable Water Quality Standard (WQS), and Results Exceeding Applicable WQS		
	E. coli	PCBs	Gross Alpha, Adjusted
	WQS: 88 MPN (CFU/100 mL) Pueblo of Isleta Primary Contact Ceremonial & Recreational	WQS: 0.00017 ug/L Pueblo of Isleta Human Health Criteria (based on fish consumption only)	WQS: 15 pCi/L Pueblo of Isleta and NM Domestic Water Supply & Livestock Watering Designated Uses
10/5/2022 Rio Grande at Alameda Bridge E. coli Only	No Exceedance	Not Tested	Not Tested
10/6/2022 Rio Grande South Isleta Diversion Dam	No Exceedance	0.0011 ug/L	22.98 pCi/L

Overview of Stormwater Monitoring Activity

Bohannon Huston, Inc. (BHI) has been tasked to perform water quality services for the Compliance Monitoring Cooperative (CMC) Stormwater Data Verification, Database, and Reporting for the Wet Weather Stormwater Quality Monitoring Program for Fiscal Year (FY) 2023 (July 1, 2022 to June 30, 2023). The scope of work for this task includes data verification of the stormwater laboratory analysis results, compiling the analysis results into a database, and calculating the E. coli loading to compare with the Waste Load Allocation (WLA) for the qualifying storm events. The stormwater compliance monitoring is conducted separately by Daniel B. Stephens & Associates, Inc. (DBS&A) and is not a part of this task. This task is being conducted to assist the CMC members with their comprehensive monitoring and assessment program for compliance under the 2014 Middle Rio Grande (MRG) Watershed Based Municipal Separate Storm Sewer System (MS4) Permit, NPDES Permit No. NMR04A000 ("WSB MS4 Permit").

The WSB MS4 Permit entered Administrative Continuance in December 2019 when U.S. Environmental Protection Agency (EPA) Region 6 did not issue a new MS4 Permit before the current MS4 Permit's expiration date. The MRG Technical Advisory Group (TAG) sent EPA a letter dated October 15, 2019, acknowledging Administrative Continuance after the expiration date of the 5-year Permit term. Until a new MS4 Permit is issued, there are no compliance monitoring requirements for the CMC in the Rio Grande. As identified in the CMC Monitoring Plan, the WSB MS4 Permit required a minimum of seven (7) storm events be sampled at both the Rio Grande North and Rio Grande South locations (refer to Figure 1, page 4). All Permit required samples have been obtained by the CMC, as well as two (2) samples obtained in FY 2021, one

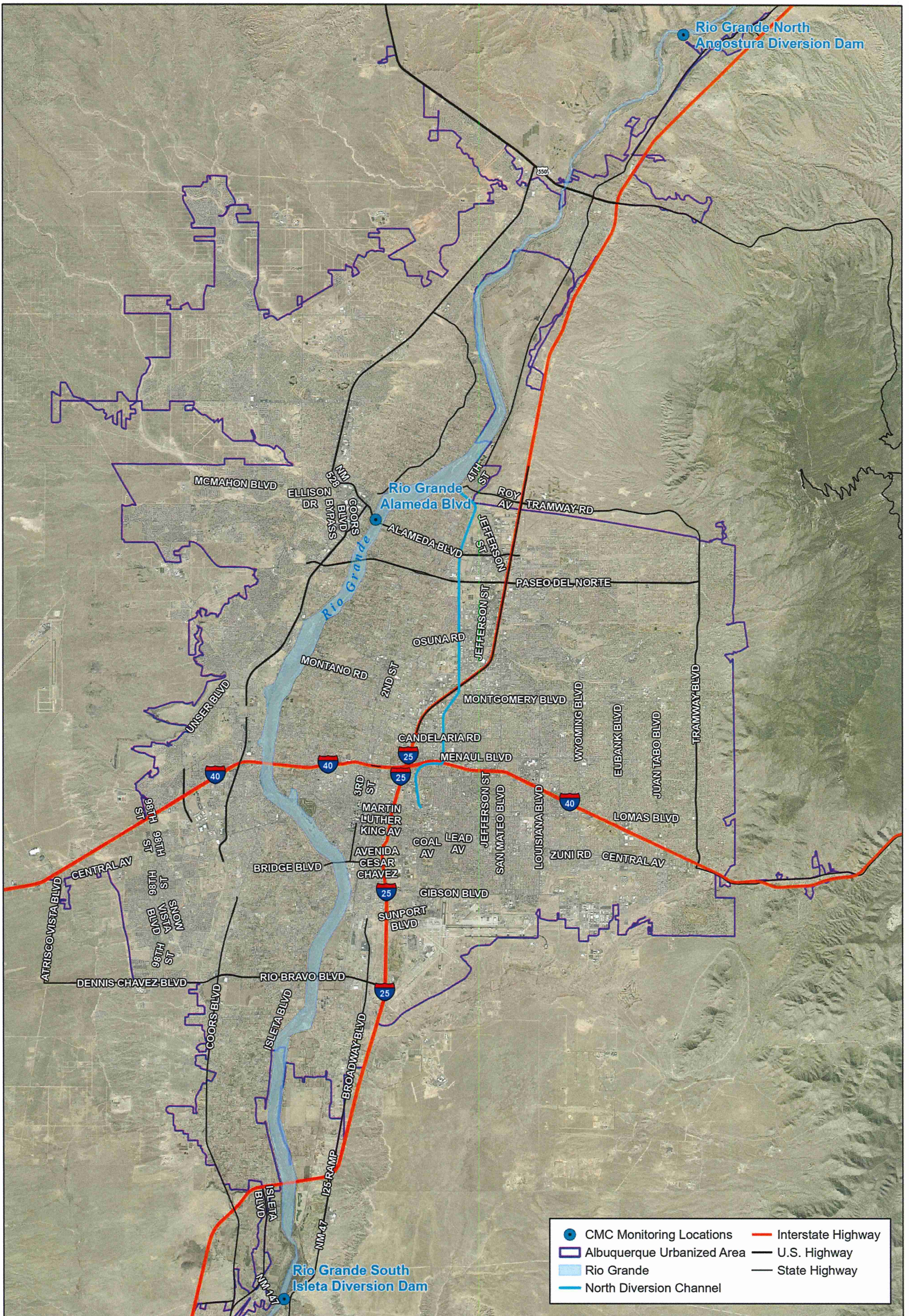
(1) sample obtained in FY 2022 wet season, and one (1) sample obtained in FY 2023 wet season during Administrative Continuance; all 11 CMC samples are summarized in Table 2 below.

**Table 2: CMC Sample Summary
 Compared to WSB MS4 Permit Requirements**

No. of Storm Events Required to Sample	CMC-WSB MS4 Permit Required Samples per Season	FY (Date) Samples Obtained for CMC
1	#1 Wet Season	FY 2017 (8/10/2016)
2	#2 Wet Season	FY 2017 (9/12/2016)
3	#3 Wet Season	FY 2017 (9/21/2016)
4	#1 Dry Season	FY 2017 (11/21/2016)
5	#2 Dry Season	FY 2019 (3/13/2019)
6	Any Season	FY 2018 (Wet Season - 7/27/2017)
7	Any Season	FY 2018 (Wet Season - 9/27/2017)
Not Required	Wet Season	FY 2021 (10/28/2020)
Not Required	Dry Season	FY 2021 (4/28/2021)
Not Required	Wet Season	FY 2022 (9/1/2021)
Not Required	Wet Season	FY 2023 (10/5/2022)

During the WSB MS4 Permit Administrative Continuance, the CMC members chose to continue sampling within the Rio Grande to support their MS4 program needs and gather additional data in support of the future MS4 Permit compliance. This memo reports on the wet weather stormwater monitoring activity for the FY 2023 wet season (July 1, 2022 to October 31, 2022).

The CMC Excel database was updated with the FY 2023 wet season, wet weather monitoring data as results were received. The database contains sample location, sample date, analyses conducted, methods used, applicable surface WQSS, WSB MS4 Permit required Minimum Qualification Levels (MQL) and results.



Bohannon & Huston
www.bhinc.com 800.877.5332



0 6,000 12,000 24,000 Feet
1 inch = 12,205 feet

CMC Monitoring

Figure 1
Monitoring Locations

Summary of the CMC Sampling Plan

Sampling Parameters:

Samples from both the Rio Grande North and Rio Grande South monitoring locations were analyzed for the parameters defined in the EPA approved WSB MS4 CMC Monitoring Plan, May 5, 2016. The parameter list for both locations, which is intended to characterize stormwater discharges into the river, is as follows:

- Total Suspended Solids (TSS)
- Total Dissolved Solids (TDS)
- Chemical Oxygen Demand (COD)
- Biological Oxygen Demand – 5-day (BOD₅)
- Dissolved Oxygen (DO)
- Oil & grease (N-Hexane Extractable Material)
- E. coli
- pH
- Total Kjeldahl Nitrogen (TKN)
- Nitrate plus Nitrite
- Dissolved Phosphorus
- Ammonia plus Organic Nitrogen (Nitrogen, Ammonia and Nitrogen, Total)
- Phosphorous (Total Phosphorous)
- Polychlorinated Biphenyls (PCBs - Method 1668A)
- Gross Alpha, adjusted
- Tetrahydrofuran
- Benzo(a)pyrene
- Benzo(b)fluoranthene (3, 4 Benzofluoranthene)
- Benzo(k)fluoranthene
- Chrysene
- Indeno (1 ,2,3-cd) Pyrene
- Dieldrin
- Pentachlorophenol
- Benzidine
- Benzo(a)anthracene
- Dibenzofuran
- Dibenzo(a, h)anthracene
- Chromium VI (Hexavalent)
- Copper – Dissolved
- Lead – Dissolved
- Bis (2-ethylhexyl) phthalate
- Conductivity
- Temperature

Hardness (as CaCO₃) was added to the parameter list to allow dissolved metal results to be compared to the applicable WQSs. DO, pH, conductivity, and temperature are required by the WSB MS4 Permit to be analyzed in the field during sample collection, which was conducted by DBS&A, within 15 minutes of sample collection. All E. coli samples were submitted to the laboratory within eight (8) hours of collection in order to meet the specified hold time.

Sampling Locations:

The sampling locations are shown in Figure 1, page 4.

Rio Grande North – In-stream sampling within the Rio Grande was performed upstream of the Angostura Diversion Dam at the north end of the watershed. The location is upstream of all inputs from the Urban Area (UA) to the river and provides the background water conditions.

Rio Grande South – In-stream sampling within the Rio Grande was performed at the Isleta Bridge at the south end of the watershed. The location is downstream of all inputs from the UA to the river and provides the downstream water conditions. These locations have been accepted by EPA and the New Mexico Environment Department (NMED) to meet the WSB MS4 Permit requirements in Part III.A.

During this FY 2023 wet season, an E. coli sample was collected within the Rio Grande at Alameda Blvd. This is the location of the NMED defined stream segment divide (refer to Figure 6). This sample point was added after discussion with NMED in February 2017 regarding potential refinements to E. coli loading calculations.

Sample Collection:

As mentioned previously, sample collection for the CMC is being conducted by DBS&A (through a separate on-call contract). Since BHI was not involved in the sample collection, this task and memo do not address the details of the methodologies regarding sampling, determining if an event was a qualifying storm event, or determining the timing of the hydrograph at the Rio Grande Alameda and Rio Grande South locations.

DBS&A provided BHI their field notes and field sample data (temperature, DO, specific conductivity, and pH) for the FY 2023 wet season sampling. AMAFCA provided BHI the completed laboratory analysis reports from Hall Environmental Analysis Laboratory (HEAL) for this monitoring season.

Quality Assurance Project Plan (QAPP):

AMAFCA provided BHI with the Draft Quality Assurance Project Plan (QAPP) for the CMC dated June 14, 2016. DBS&A followed this QAPP during sample collection. BHI used this QAPP and the included standard operating procedures (SOPs) for the data verification and validation.

Monitoring Activity & Lab Analysis Summary

The list below provides a summary of the CMC comprehensive monitoring program activities completed for the FY 2023 wet season from July 2022 through October 2022. One (1) qualifying storm event was sampled and analyzed during the FY 2023 wet season.

- **October 5-6, 2022 – Qualifying Storm Event – Full Analysis of Samples.** Samples were collected at the Rio Grande North and Alameda Blvd locations beginning at 11:25 a.m. and 1:30 p.m., respectively. These samples were sent to the laboratory for an E. coli test. The CMC determined that the storm event beginning October 5 was a qualifying storm event. A Rio Grande South sample was collected beginning at 8:15 a.m. on October 6. The samples from the North (collected October 5) and South (collected October 6) locations were taken to HEAL for full parameter testing.

Stormwater Quality Database for CMC

As stated previously, there was one (1) qualifying storm event during the FY 2023 wet season, wet weather monitoring sampled by the CMC, which occurred October 5-6, 2022. DBS&A's field notes containing DO, pH, conductivity, and temperature measurements, as well as sampling comments have been received, and field results have been added to the database. Additionally, the HEAL reports for the corresponding time period have been received, added to the database, and are provided with this memo (Attachment 1). The laboratory reports attached to this memo have BHI added comments including the field parameter measurements and other relevant notes related to the laboratory report.

Database Data Entry:

The CMC Excel database was updated with the FY 2023 wet season, wet weather monitoring data. The database contains sample locations, sample date, analyses conducted, methods used, applicable surface water quality standards (WQS), WSB MS4 Permit required Minimum Quantification Levels (MQL), and analysis results. The database was updated under this Task to include the Rio Grande at Alameda sample location. Applicable surface WQSs found in New Mexico Administrative Code (NMAC) 20.6.4, as well as the Pueblo of Isleta WQSs, are entered in the Excel database for comparison purposes with testing results. There is an indicator in the database to show if the monitoring results exceed the applicable surface WQS. An exceedance is not a violation of the WSB MS4 Permit, as the Permit does not have numeric discharge limitations. These ">WQ Standard" flags simply and quickly show the CMC members where the results of the lab data exceed the applicable WQS.

Water quality data was entered into the database upon receipt of the lab reports. All data entered into the database is initially denoted with a "P" to indicate that it is provisional and has not been through the verification and validation process yet. Full parameter analyses of qualifying storm events for both Rio Grande North and Rio Grande South locations were entered respectively into the database. The E. coli only samples from the Rio Grande Alameda location were also entered into the database.

Data Verification and Validation:

The HEAL analysis reports were provided to BHI by AMAFCA. The lab reports also contain the Chain of Custody for the submitted samples. Field data was requested by and provided to BHI by DBS&A. Data verification and validation (V&V) was conducted by BHI on all field notes, lab reports, and Chain of Custody documents in accordance with the CMC WQS Operating Procedure (SOP) #2, which is part of the existing CMC QAPP, Draft June 14, 2016. These procedures are based on EPA Guidance for Environmental Data Verification and Validation (EPA, 2008).

As stated in the QAPP, the V&V process was completed by a different person than the one who entered the data into the database. The V&V process included use of the *Data Verification and Validation Worksheet* (provided in the QAPP). For this task, field data was verified first, confirming all field notes were complete. BHI handled field parameter questions directly with DBS&A. Chemical data verification began as soon as the lab reports were received, checking that all parameters were tested and looking for any obvious exceedances of WQS. Other steps listed on the *Data Verification and Validation Worksheet* were completed after all data from the laboratory was received and entered into the database. Sample blank results were reviewed to identify potential contamination during field processing or transport. Replica/duplicate samples were evaluated based on relative

percent difference (as described in more detail in the QAPP) to determine the variability of the samples.

All CMC FY 2023 wet season data met the appropriate QA/QC requirements. If there were any data that did not meet the appropriate QA/QC requirements, it would have been assigned an appropriate laboratory qualifier or validation codes. A summary of validation codes is provided in the QAPP.

Once the V&V process was completed, the worksheets were signed. Copies of the V&V worksheets are provided with this memo (Attachment 2). In the database, data that was checked during the V&V process was then changed from being denoted with a “P” for provisional to a “V” for verified, and laboratory qualifiers were added, as needed.

CMC FY 2023 Wet Season Assessment and Evaluation of Monitoring Results

The EPA approved WSB MS4 CMC Monitoring Plan, May 5, 2016, has 33 parameters to monitor at the Rio Grande North and Rio Grande South monitoring locations. Of these 33 parameters, 19 parameters were not detected in the FY 2023 wet season samples at either the Rio Grande North or South locations. Refer to Table 3 for a list of the parameters that were not detected.

**Table 3: Parameters Not Detected
 CMC FY 2023 Wet Season Monitoring**

Parameters Not Detected	
Oil and Grease (N-Hexane Extractable Material)	Dieldrin
Nitrate plus Nitrite	Pentachlorophenol
Dissolved Phosphorous	Benzidine
Ammonia (mg/L as N)	Benzo(a)anthracene
Tetrahydrofuran	Dibenzofuran
Benzo(a)pyrene	Dibenzo(a,h)anthracene
Benzo(b)fluoranthene (3, 4 Benzofluoranthene)	Dissolved Lead
Benzo(k)fluoranthene	Chromium VI (Hexavalent)
Chrysene	Bis (2-ethyhexyl) Phthalate (other names: Di(2-ethylhexyl)phthalate, DEHP)
Indeno (1,2,3-cd) Pyrene	

For the remaining 14 parameters on the CMC monitoring parameter list, only three (3) parameters (E. coli, PCBs, and gross alpha, adjusted) had exceedances of the applicable surface WQS found in New Mexico Administrative Code (NMAC) 20.6.4 and the Pueblo of Isleta WQS during the FY 2023 wet season. These exceedances are summarized on Table 1, pages 1-2, and discussed below in further detail.

E. coli:

The E. coli results collected during the FY 2023 wet season are summarized in Table 4.

**Table 4: E. coli Results
CMC FY 2023 Wet Season Monitoring**

Date – Rio Grande Location	E. coli Results MPN (CFU/100 mL)
October 5, 2022 – North	135
October 5, 2022 – Alameda	52
October 6, 2022 – South	<1

At the Rio Grande North location (upstream of the Albuquerque UA, at the Angostura Diversion Dam), one (1) sample was collected and tested for E. coli. This E. coli result exceeded Pueblo of Isleta and Pueblo of Sandia's primary contact-single sample WQS of 88 CFU/100 mL. This October 5 sample was below NMAC's primary contact-single sample WQS of 410 CFU/100 mL. At the Rio Grande South location (downstream of the MS4 UA), one (1) sample was collected and tested for E. coli. This sample did not exceed any WQSs. This E. coli lab result at the Rio Grande South location is the lowest value that the CMC has seen reported in the Rio Grande at this location. AMAFCA called HEAL to discuss this result and verify that the reported result was correct.

In addition, the CMC collected one (1) E. coli sample in the Rio Grande at Alameda Blvd. during the FY 2023 wet season. The Alameda Blvd. analysis point was based on discussions with NMED in February 2017 on collecting actual E. coli data at the stream segment divide verses using an area percentage (as defined in the TMDL) for E. coli loading calculations. The lab results showed that the sample had an acceptable E. coli concentration below the primary contact-single sample Pueblo of Isleta WQS (88 CFU/100 mL) and the primary contact-single sample NMAC WQS (410 CFU/100 mL).

As a reminder, in January 2017 the CMC members clarified with NMED that the units MPN/100 mL and CFU/100 mL are considered to be interchangeable for the purposes of this stormwater quality monitoring reporting. The New Mexico and Pueblo WQSs for E. coli are currently in units of CFU/100 mL while the lab reports are typically in units of MPN/100mL. The graph presented in this section uses units of CFU/100 mL to be consistent with the WQS units. Refer to Figure 2 for a graphical representation of E. coli results from October 2022.

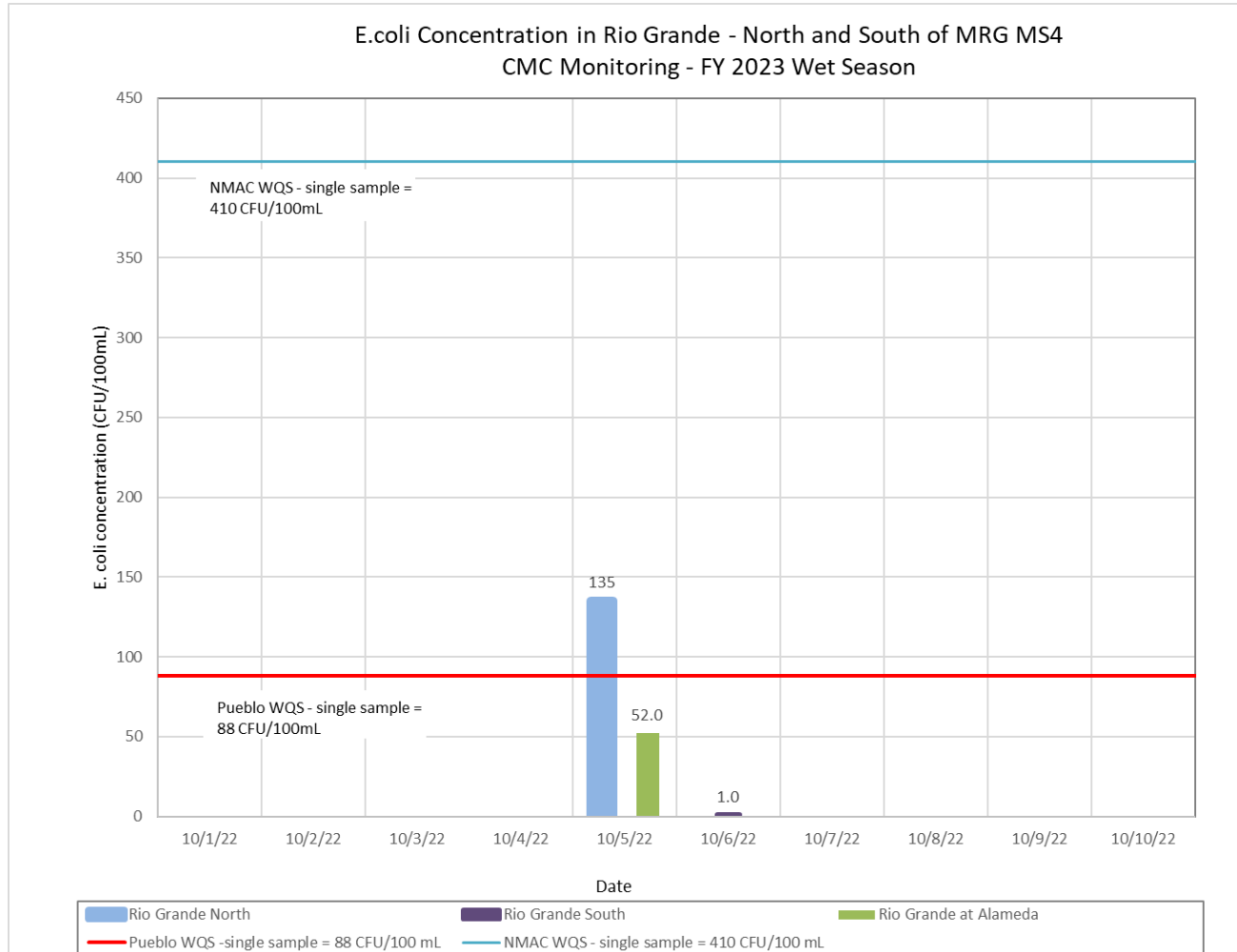


Figure 2: E. coli Results in Rio Grande CMC Monitoring – FY 2023 Wet Season

PCBs:

There are multiple surface WQS values listed for PCBs in both the Pueblo of Isleta and the State of New Mexico standards for the various designated uses. The PCB results for samples collected from the Rio Grande during the FY 2023 wet season stormwater event were below the minimum quantification level (MQL) established in EPA standards for the MS4 NPDES Permit (Appendix F, 0.2 ug/L for PCBs). The PCB results for the Rio Grande North sample were also well below the New Mexico Surface WQSs and Pueblo of Isleta Surface WQSs for designated uses including drinking water (0.5 ug/L) and wildlife habitat, acute aquatic life, and chronic aquatic life (0.014 ug/L). However, the CMC sample from the Rio Grande South location was above the Pueblo of Isleta human health criteria (based on fish consumption only) WQS for surface waters. The human health-organism only criterion is based upon human consumption of fish and other aquatic life that bioaccumulate contaminants over time. The PCB results from 2016 through 2022 are shown in Figure 3 relative to several of the WQSs for PCBs.

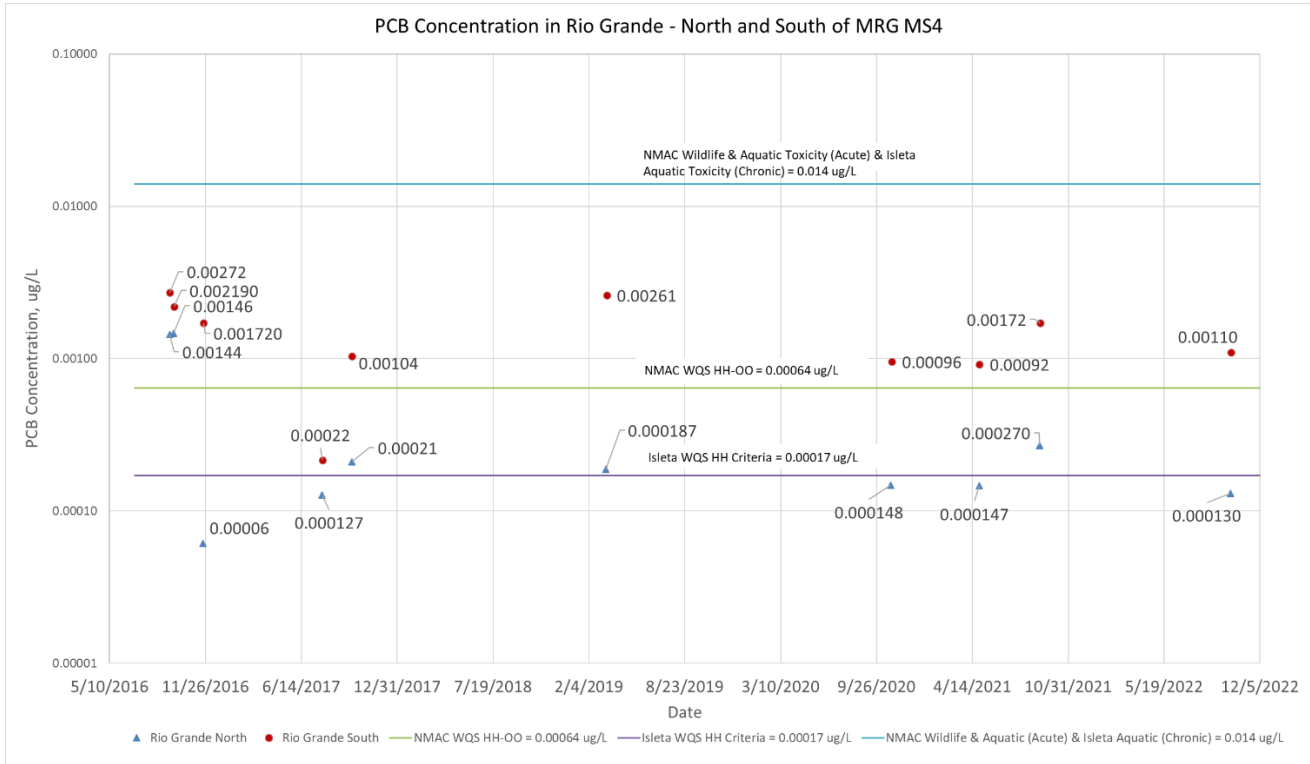


Figure 3: PCB Monitoring Results in Rio Grande CMC Monitoring – 2016 - 2022

Gross Alpha, Adjusted:

The October 6, 2022, Rio Grande South sample result exceeded the New Mexico and Pueblo of Isleta WQS for gross alpha, adjusted. The WQS for gross alpha, adjusted is the same value for both the NMAC 20.6.4 Water Quality Criterion and Pueblo of Isleta; the WQS of 15 pCi/L (“pCi/L” means picocuries per liter) is a general standard for the Pueblo of Isleta, and for New Mexico it is based on Domestic Water Supply and Livestock Watering designated uses. In surface water, the gross alpha, adjusted analyses may be affected by a high content of suspended load, particularly where sediment sources may be derived from granitic terrain; gross alpha, adjusted results may reflect the radioactivity of the natural elements in the sediment more than the surface water.

The October 6, 2022, Rio Grande South gross alpha, adjusted analytical results are detailed below; the units are in pCi/L:

- Rio Grande South CMC sample result for gross alpha, adjusted = 22.98 pCi/L
- Gross alpha, adjusted WQS at the Rio Grande South location = 15 pCi/L (NMAC 20.6.4 Water Quality Criterion for livestock watering and domestic water supply designated uses and general standard for Pueblo of Isleta)

This is the third time since 2016 that the analytical results from a CMC sample have had an exceedance in gross alpha, adjusted. The prior exceedance was reported for the September 2, 2021, Rio Grande South sample. The CMC will continue to closely evaluate this parameter in future samples. If additional exceedances occur, the CMC will discuss the results further and may consult NMED for further guidance.

Dissolved Oxygen and Temperature:

Two (2) of the water quality parameters are specifically worth mentioning in this memo because they are listed in the WSB MS4 Permit, Part I.C.1 – Special Conditions: dissolved oxygen and temperature. These parameters did not have any surface water quality exceedances during the FY 2023 wet season sampling.

Dissolved oxygen is a water quality concern in the Rio Grande if it is below 5 mg/L. None of the samples taken from the Rio Grande during the FY 2023 wet season monitoring had dissolved oxygen values below 5 mg/L. This provides the MS4s with specific monitoring data showing that stormwater did not cause or contribute to exceedances of applicable dissolved oxygen water quality standards in the Rio Grande from any of the CMC samples from 2016 to 2022. Refer to Figure 4 for CMC dissolved oxygen results and comparison to applicable WQSs.

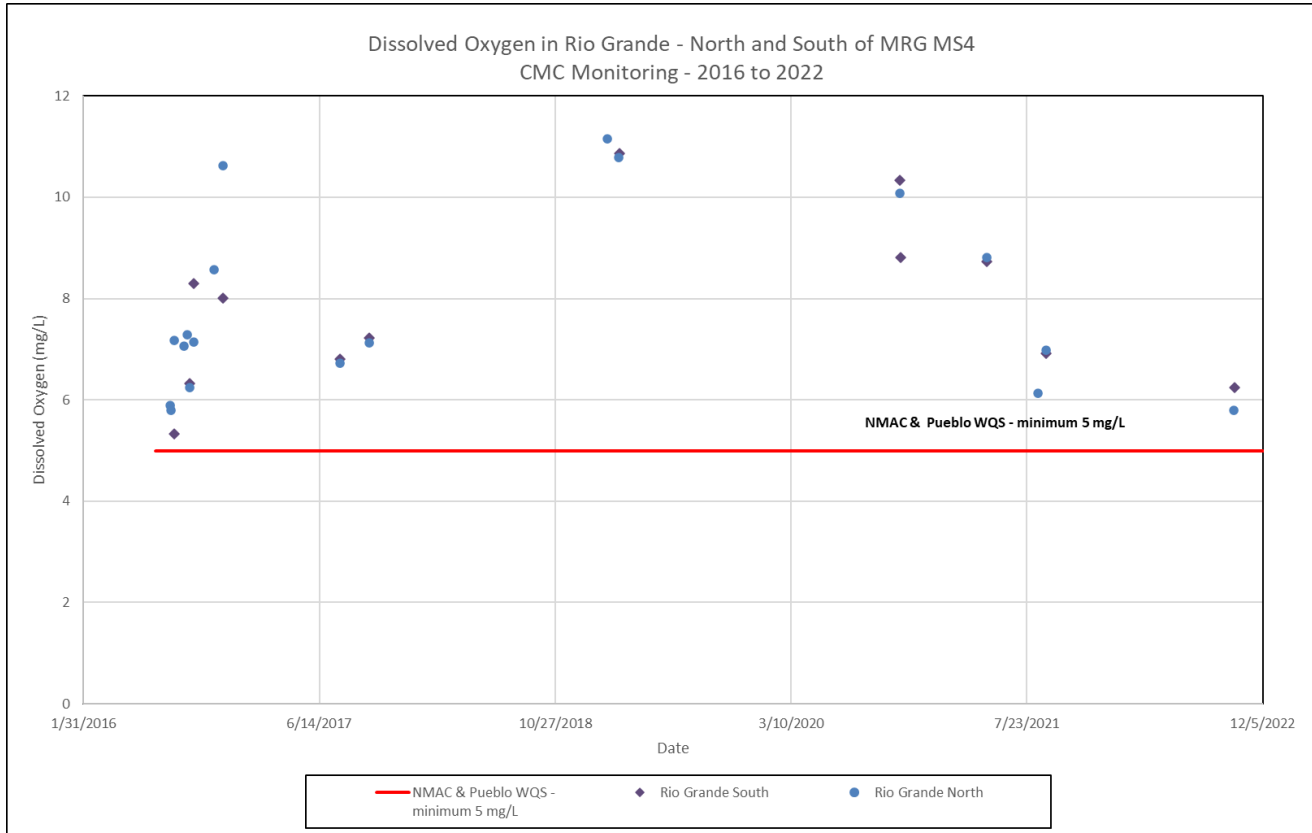


Figure 4: Dissolved Oxygen Results in the Rio Grande CMC Monitoring – 2016 - 2022

Temperature is listed in the WSB MS4 Permit as a special condition (currently only applicable to the City of Albuquerque and AMAFCA). Past data submitted to EPA and NMED by the MS4 permittees have proven that stormwater discharges into the Rio Grande are not raising the Rio Grande temperature above the WQSs. The data collected during this FY 2023 wet season monitoring also supports this conclusion. All the temperature field readings taken in the Rio Grande during the CMC FY 2023 wet season were below 32.2°C (90°F), which is the WQS for the State of New Mexico and for the Isleta and Sandia Pueblos. Refer to Figure 5 for temperature results and comparison to applicable WQSs for all CMC samples taken upstream and downstream of the MRG MS4 area from 2016 to 2022.

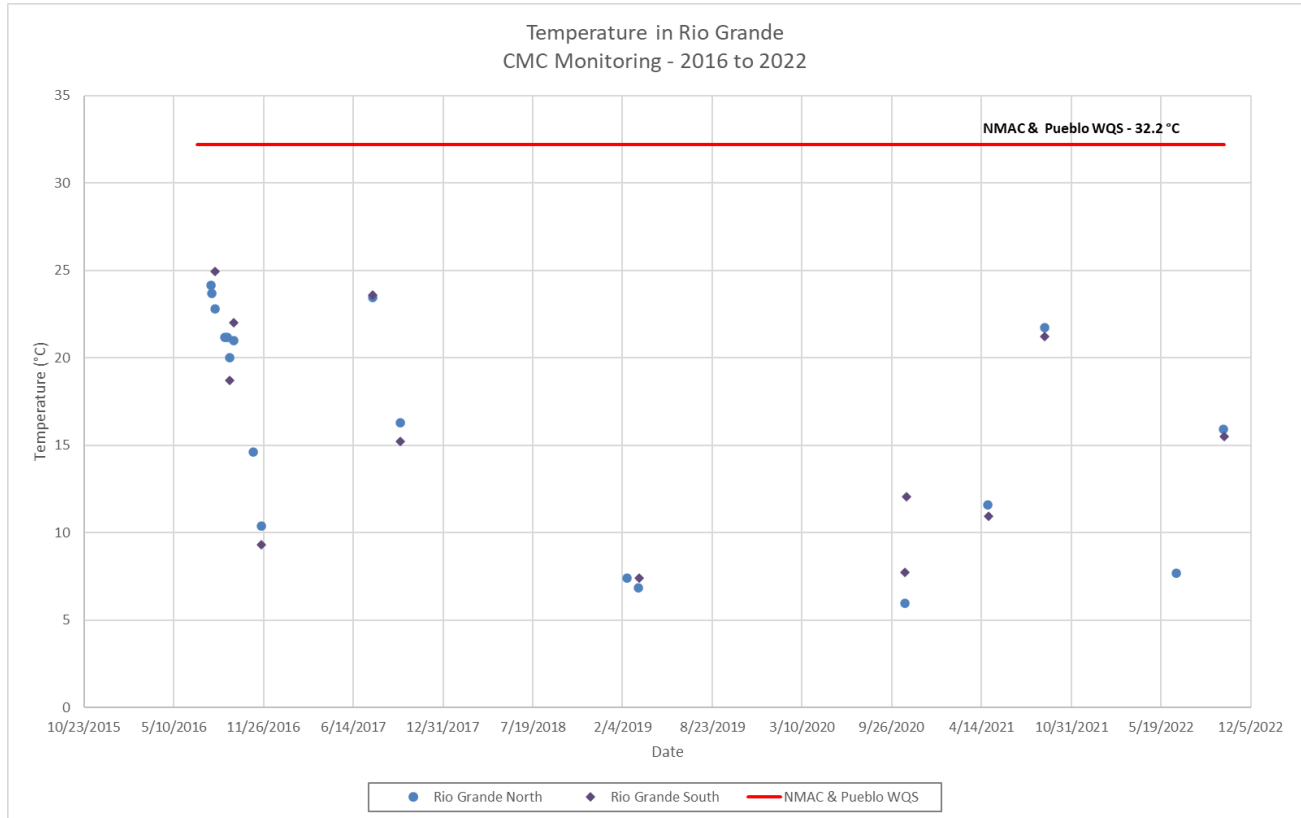


Figure 5: Temperature Monitoring Results in the Rio Grande CMC Monitoring – 2016 - 2022

CMC FY 2023 Wet Season E. coli Loading Calculations and Waste Load Allocation (WLA)

Related to assessing the stormwater results, the E. coli loading was calculated and compared to the aggregate Total Maximum Daily Load (TMDL) Waste Load Allocation (WLA) for the CMC group. A TMDL is the maximum amount of a pollutant (E. coli in this case) that a water body (Rio Grande) can assimilate on a daily basis without violating applicable surface WQSs. The total TMDL for a stream segment consists of the multiple WLA for point sources, non-point sources, and natural sources, plus a margin of safety. The CMC MS4 allotted WLA was determined in the EPA Approved, Total Maximum Daily Load for the Middle Rio Grande Watershed, June 30, 2010, and subsequent communications with NMED. The WLA varies by flow condition in the Rio Grande and by stream segment.

E. coli loading calculations and comparison to the WLA follows the WSB MS4 Permit requirements in "Discharges to Water Quality Impaired Water Bodies with an Approved TMDL", Part I.C.2.b.(i).(c).B, Appendix B-Total Maximum Daily Loads (TMDLs) Tables of the WSB MS4 Permit, and the NMED guidance provided to the CMC. Attached to this memo is the WLA Calculation spreadsheet which steps through the E. coli loading calculations and assumptions comparing the calculated E. coli loading to the CMC aggregate WLA defined by NMED.

There are two (2) stream segments defined in the WSB MS4 Permit (Appendix B): Isleta Pueblo Boundary to Alameda Street Bridge (Stream Segment 2105_50) and Non-Pueblo Alameda Bridge to Angostura Diversion (Stream Segment 2105.1_00). These stream segments differ from NMED's current stream segments defined in the *2022-2024 State of New Mexico Clean Water Act Section 303(d)/Section 305(b) Integrated Report* (NMED, April 2022). NMED currently has four (4) stream segments instead of the two (2) WSB MS4 stream segments. These various stream segment designations are shown in Figure 6, page 16.

The *NMED 303(d)/305(b) 2020-2022 Integrated Report* tables show the most recent assessment results, and currently all segments of the Rio Grande (Isleta to Angostura Diversion) are impaired for E. coli and have a TMDL for E. coli.

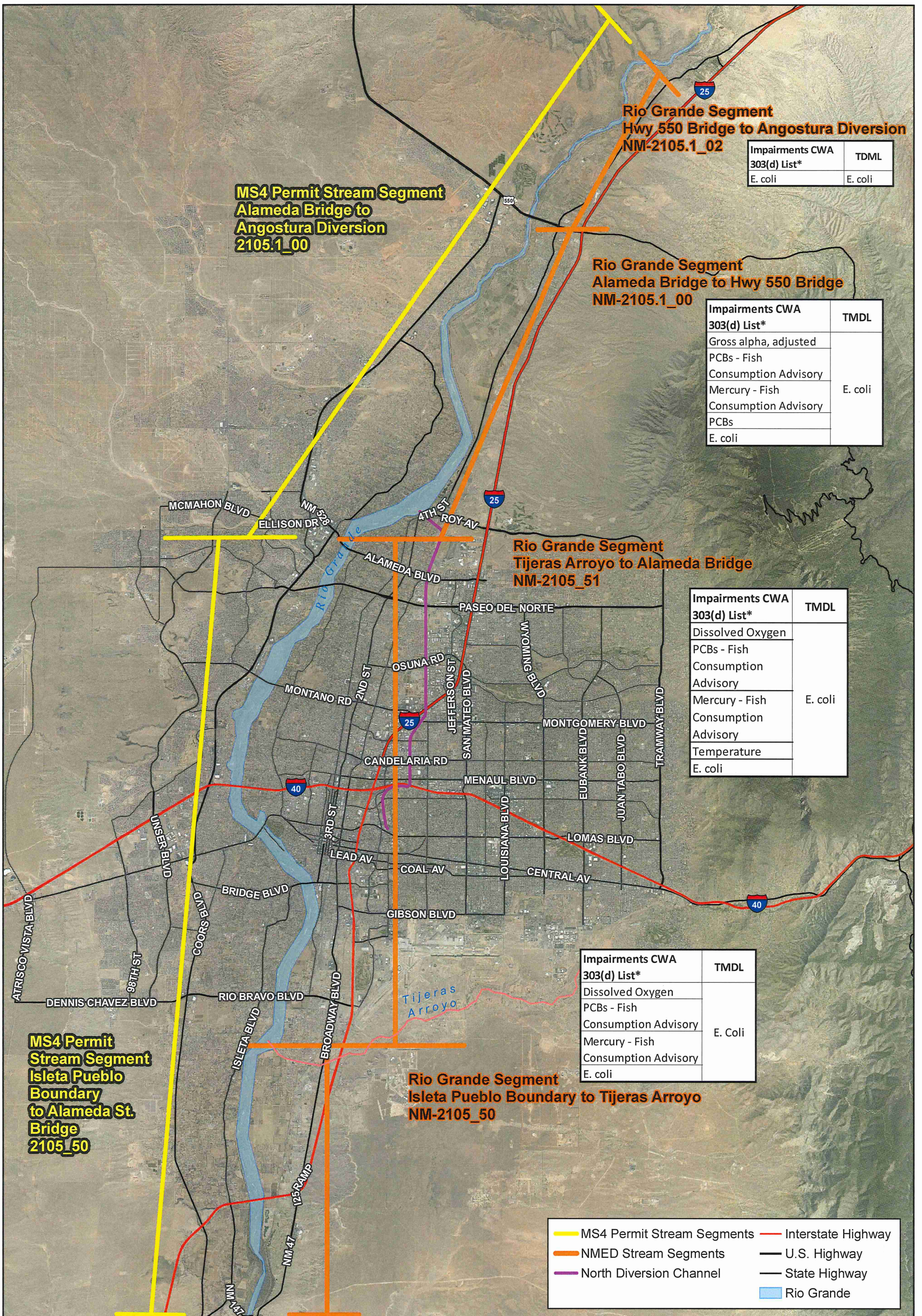
The E. coli daily loading associated with the CMC group and comparison to the NMED WLA was completed for the one (1) qualifying wet season storm event – October 5-6, 2022. For this event, the CMC obtained an E. coli sample in the Rio Grande at Alameda and used this to calculate the E. coli loading for the two (2) river segments. Refer to Table 5 for a summary of the WLA comparison results. A spreadsheet is attached to this memo that provides the detailed WLA calculations.

Table 5: Summary of CMC E. Coli Loading Compared to WLA for the CMC

Date / Stream Segment	Daily Mean Flow (cfs)	Flow Conditions (cfs) <i>range defined by NMED</i>	CMC Daily E. coli Loading (CFU/day)	NMED WLA for CMC for Stream Segment and Flow Conditions	Loading Compared to WLA Potential Exceedance or Acceptable
October 5-6, 2022 – Rio Grande North E. coli Concentration 10/5/2022 = 135 MPN (CFU/100 mL) Rio Grande at Alameda E. coli Concentration 10/5/2022 = 52 MPN (CFU/100 mL) Rio Grande South E. coli Concentration 10/6/2022 = <1 MPN (CFU/100 mL)					
Alameda to Angostura	146	Dry	0.00E+00	3.24E+10	WLA Acceptable
Isleta to Alameda	165	Dry	0.00E+00	1.57E+09	WLA Acceptable

As Table 5 illustrates, the calculated E. coli loading for the October 5-6, 2022 storm event for the northern segment (Alameda to Angostura) and the southern segment (Isleta to Alameda) of the Rio Grande was below the WLA for the CMC MS4s. This analysis used the mid-point E. coli sample result obtained in the Rio Grande at Alameda.

The WSB MS4 Permit implies that the WLA is a measurable goal for the MS4s related to E. coli. Based on extensive review of the EPA Approved, Total Maximum Daily Load (TMDL) for the Middle Rio Grande Watershed, June 30, 2010, this seems to be an unattainable goal for MS4s.



Bohannon & Huston
www.bhinc.com 800.877.5332



0 12,000 24,000 Feet
1 in = 12,500 ft

CMC Monitoring

Figure 6
Rio Grande Impairments & TMDL Information

* Final 2022-2024 State of NM Clean Water Act, Section 303(d)/Section 305(b) Integrated Report

Page 40 of the 2010 TMDL Report states, "It is important to remember that the TMDL is a planning tool to be used to achieve water quality standards...Meeting the calculated TMDL may be a difficult objective." The TMDL/WLA was calculated by NMED to meet the Pueblo (Sandia and Isleta) geometric mean maximum of 47 CFU/100 ml, which was done to be "protective of downstream waters" and "to provide an implicit margin of safety (MOS)". A single grab sample E. coli result meeting this very low geometric means WQs will be very difficult for the MS4s to obtain.

The CMC members discussed the difficulty of using the WLA as a measurable goal with NMED on February 1, 2017. NMED explained that exceeding the WLA does not trigger enforcement. However, NMED strongly encouraged the MS4s to document what they are doing once they realize the WLA is potentially exceeded. The meeting on February 1, 2017, and the CMC discussion with NMED on February 16, 2017, demonstrate CMC members are working toward understanding the WLA. In addition, the CMC members began implementing a refinement to the sampling plan discussed with NMED by obtaining an E. coli sample in the Rio Grande at Alameda effective the FY 2018 wet season, as feasible. This demonstrates that the CMC is continuing to investigate the potential exceedances and make improvements to monitor E. coli in the Rio Grande.

Data Entry for Discharge Monitoring Reports

The WSB MS4 Permit entered Administrative Continuance in December 2019 when EPA Region 6 did not issue a new MS4 Permit before the current MS4 Permit's expiration date. Until a new MS4 Permit is issued, there are no compliance monitoring requirements for the CMC in the Rio Grande. As identified in the CMC Monitoring Plan, the WSB MS4 Permit required a minimum of seven (7) storm events be sampled at both the Rio Grande North and Rio Grande South locations. All MS4 Permit required samples have been obtained by the CMC and verified stormwater quality data from these required events have been submitted to the EPA using electronic Discharge Monitoring Report (DMR) forms. Data from the DMRs are uploaded to a comprehensive nationwide database that contains discharge data for facilities and other point sources that discharge directly to receiving streams. For this Task, BHI has not completed any data entry related to the EPA DMRs for the FY 2023 wet season.

Conclusions and Planning

During the FY 2023 wet season (July 1 to October 31, 2022), one (1) qualifying stormwater sample was obtained by the CMC. Lab results were received, and this data has been entered into the CMC Excel database. The lab data entered is marked in the spreadsheet as "V" (verified), and data V&V has been completed (refer to Attachment 2).

To summarize, monitoring results and E. coli loading calculations for the FY 2023 wet season show that:

- The WSB MS4 Permit entered Administrative Continuance in December 2019 when U.S. Environmental Protection Agency (EPA) Region 6 did not issue a new MS4 Permit before the current MS4 Permit's expiration date. Until a new MS4 Permit is issued, there are no compliance monitoring requirements for the CMC in the Rio Grande. All MS4 Permit required samples have been obtained by the CMC, as well several samples collected during Administrative Continuance, including the one (1) sample obtained in the FY 2023 wet season, as reported in this memo.

- For the FY 2023 wet season, 19 of the 33 parameters tested were not detected in any of the Rio Grande North or South samples.
- Several key parameters all met the applicable WQSs, as they have for all the CMC samples to date:
 - All dissolved oxygen results were greater than 5 mg/L (minimum WQS).
 - All temperature results were less than 32.2°C (maximum WQS).
- The PCB results were below the New Mexico Surface WQSs and Pueblo of Isleta Surface WQSs for designated uses including drinking water, wildlife habitat, acute aquatic life, and chronic aquatic life. However, the Rio Grande South CMC sample from October 6, 2022, was above the Pueblo of Isleta and New Mexico human health criteria (based on fish consumption only) WQSs for surface waters.
- The October 6, 2022, Rio Grande South sample result exceeded the New Mexico Surface WQSs and Pueblo of Isleta Surface WQSs (15 pCi/L) for gross alpha, adjusted. This is the third time since 2016 that the analytical results from a CMC sample have had an exceedance in gross alpha, adjusted. The CMC will continue to closely evaluate this parameter in future samples.
- The calculated E. coli loading for the October 5-6, 2022 storm event for the northern segment (Alameda to Angostura) and the southern segment (Isleta to Alameda) of the Rio Grande was below the WLA for the CMC MS4s. This analysis used the mid-point E. coli sample result obtained in the Rio Grande at Alameda.
 - The E. coli lab result for the Rio Grande South location is the lowest value that the CMC has seen reported in the Rio Grande at this location. AMAFCA called HEAL to discuss this result and verify that the reported result was correct.
 - Sources for the E. coli loading measured in the river are not solely attributable to the CMC MS4 members; the E. coli loading calculations serve to provide a reasonable estimate of the CMC contribution to the measured E. coli loading.

For planning purposes for the CMC members, the FY 2023 dry season CMC monitoring, if a sample is obtained, will be summarized by BHI for the CMC in a dry season memo.

SG/ab

Attachments:

Attachment 1 – DBS&A Field Data & Hall Environmental Analysis Laboratory Reports with BHI Notes for FY 2023 Wet Season

Attachment 2 – FY 2023 Wet Season Completed Data Verification and Validation (V&V) Forms

Spreadsheets Included Separately:

E. coli Loading and Comparison to Waste Load Allocation (WLA) Excel Spreadsheet

Excel CMC Spreadsheet with FY 2023 Wet Season Stormwater Quality Monitoring Results

ATTACHMENT 1

**DBS&A FIELD DATA & HALL ENVIRONMENTAL ANALYSIS
LABORATORY REPORTS WITH BHI NOTES FOR
FY 2023 WET SEASON**

CMC Water Quality Results Database
 Date: December 29, 2022
 Summary of Lab Results for CMC samples for FY 2023 Wet Season

Parameter	Permit Required Units	Analysis Method	Rio Grande - North				Rio Grande - South - At Isleta Dam				Rio Grande - Alameda Bridge (E. coli Only Samples)			
			Provisional or Verified	2023 CMC SAMPLE - EXTRA NORTH Collection Date 10/5/2022 Wet Season Sample	Qualifier	Check compared to Water Quality Criterion	Provisional or Verified	2023 CMC SAMPLE - EXTRA SOUTH Collection Date 10/6/2022 Wet Season Sample	Qualifier	Check compared to Water Quality Criterion	Provisional or Verified	2023 CMC SAMPLE - EXTRA ALAMEDA Collection Date 10/5/22 Wet Season Sample	Qualifier	Check compared to Water Quality Criterion
Total Suspended Solids (TSS)	mg/L	SM 2540D	V	29		--	V	890	D	--				
Total Dissolved Solids (TDS)	mg/L	SM2540C MOD	V	195		OK	V	265	D	OK				
Chemical Oxygen Demand (COD)	mg/L	EPA 410.4	V	22.3		--	V	ND		--				
Biochemical Oxygen Demand (BOD ₅)	mg/L	SM5210B	--	Not provided		--	--	Not provided		--				
Dissolved Oxygen (DO)	mg/L	FIELD	V	5.79		OK	V	6.24		OK	V	5.58		OK
Oil and Grease (N-Hexane Extractable Material)	mg/L	EPA 1664A	V	ND		OK	V	ND		OK				
E. coli	MPN (CFU/100 mL)	SM 9223B Fecal Indicator	V	135		>WQ Standard	V	<1		OK	V	52		OK
pH	S.U.	FIELD	V	8.24	H	OK	V	8.02	H	OK	V	7.6		OK
Total Kjeldahl Nitrogen (TKN)	mg/L	SM 4500	V	ND		--	V	1.7		--				
Nitrate plus Nitrite	mg/L	EPA 300.0: Anions	V	ND		OK	V	ND		OK				
Dissolved Phosphorous	mg/L	EPA 365.1, filtered sample	V	ND	D	--	V	ND	D	--				
Ammonia (mg/L as N)	mg/L	SM 4500 NH3	V	ND		OK	V	ND		OK				
Total Nitrogen	mg/L	--	V	ND		OK	V	1.70		OK				
Total Phosphorous	mg/L	EPA 365.1	V	ND	D	--	V	0.97	D	--				
PCBS - 0.000064 (Method 1668A - sum of all congeners)	µg/L	EPA 1668	V	0.00013	J	OK	V	0.0011	J	>WQ Standard				
Gross Alpha, Adjusted	pCi/L	EPA 900.0	V	0.895 ± NA		OK	V	22.98 ± NA		>WQ Standard				
Tetrahydrofuran	µg/L	EPA 8260 C	V	ND		--	V	ND		--				
Benzo[a]pyrene	µg/L	EPA 625	V	ND		OK	V	ND		OK				
Benzo[b]fluoranthene (other name: 3,4-Benzofluoranthene)	µg/L	EPA 625	V	ND		OK	V	ND		OK				
Benzo[k]fluoranthene	µg/L	EPA 625	V	ND		OK	V	ND		OK				
Chrysene	µg/L	EPA 625	V	ND		OK	V	ND		OK				
Indeno[1,2,3-cd]Pyrene	µg/L	EPA 625	V	ND		OK	V	ND		OK				
Dieldrin	µg/L	EPA 608	V	ND		OK	V	ND		OK				
Pentachlorophenol	µg/L	EPA 625	V	ND		OK	V	ND		OK				
Benzidine	µg/L	EPA 625	V	ND		OK	V	ND		OK				
Benzo[a]anthracene	µg/L	EPA 625	V	ND		OK	V	ND		OK				
Dibenzofuran	µg/L	EPA 625	V	ND		--	V	ND		--				
Dibenzo[a,h]anthracene	µg/L	EPA 625	V	ND		OK	V	ND		OK				
Chromium VI (Hexavalent)	µg/L	3500Cr C-2011	V	ND		OK	V	ND		OK				
Dissolved Copper	µg/L	EPA 200.8	V	1.1		OK	V	ND		OK				
Dissolved Lead	µg/L	EPA 200.8	V	ND		OK	V	ND		OK				
Bis (2-ethylhexyl) Phthalate (other names: Di(2-ethylhexyl)phthalate, DEHP) - 2.2	µg/L	EPA 625	V	ND		OK	V	ND		OK				
Conductivity	µmhos/cm	FIELD	V	290		--	V	395		--	V	275		--
Temperature	°C	FIELD	V	15.9		OK	V	15.5		OK	V	18		OK
Hardness (as CaCO ₃)	mg/L	SM2340B	V	120		--	V	280		--				
Mercury	µg/l	--												

Data Verification/Validation and Qualifier Notes:
 (R) The sample results are unusable because certain criteria were not met. The analyte may or may not be present in the sample.
 (H) Sample holding time exceeded.
 (I) The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
 (D) Sample was diluted by Lab due to matrix
 (U) Analyte was analyzed for, but not detected above the specified detection limit.

Notes:
 1. Wet Season monitoring period - July 1 to October 31 and Dry Season monitoring period - November 1 to June 30 according to the Watershed Based MS4 Permit NMR04A000.
 mean monthly flow of 100 cfs, monthly average concentration for TDS 1,500 mg/l or less, sulfate 500 mg/L or less, and chloride 250 mg/L or less.
 3. Aquatic life criteria for metals are expressed as a function of total hardness (mg/L as CaCO₃)
 4. According to NMAC 20.6.4, E. coli bacteria for Primary Contact - monthly geometric mean
 5. Water quality criterion for metals is based on dissolved metals, NMAC 20.6.4.900.1 and individual sample results compared to acute toxicity values.
 6. HEAL lab method: SM 9223B Fecal Indicator. Note - lab method for units of MPN/100 ml, lab report uses units CFU/100 ml, for this analysis assuming two units are equivalent

ND - analyte not detected above the laboratory method detection limit
 NA - not analyzed
 Hatching also indicates that parameter was not analyzed

National recommended WQ criteria Human Health
<https://www.epa.gov/wqc/national-recommended-water-quality-criteria-human-health-criteria-table>

Samplers Chad Johannsen
Sam Fire

CMC Sampling Data Sheet

Site Identification: Rio Grande North j Angostura Diversion Dam

Notes: _____

Full Suite Sample Date and Time:	<u>10/5/22</u>	<u>1215</u>
Full Sample Identification:	<u>RG North- 2022 1005</u>	
QC Samples:	Duplicate / <u>(None)</u>	QC Sample ID:
QC samples require a DIFFERENT sample time than the environmental sample.		
QC Sample time:		

Full Suite Collection Point :	<u>Diversion Structure</u>		
Full Suite Sample Volume:	<u>8gal</u>	Collection Time Start:	<u>1125</u> End: <u>1210</u>

Field Parameters for each 2-gallon grab

Grab	Time	Temp (°C)	pH	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)
1	1125	16.4	8.56	334	6.56	66.6
2	1140	16.8	7.25	297	5.90	60.7
3	1155	16.8	8.01	295	3.42	34.6
4	1210	14.9	8.27	291	8.91	88.2
Composite	1215	15.9	8.24	290	5.79	59.6

Turbid Water Color TAN Solids Oil/Sheen Foam Odor _____

Analytical - see 2021 COC table

Site Photo Sample Photo

Samplers Chad Johannes
Sam Fire

CMC Sampling Data Sheet

Site Identification: Rio Grande @ Isleta

Notes:

Full Suite Sample Date and Time:	<u>10/6/22 0905</u>
Full Sample Identification:	<u>RG South - 2022 1006</u>
QC Samples: Duplicate / None	QC Sample ID:
QC samples require a DIFFERENT sample time than the environmental sample.	
QC Sample time:	

Full Suite Collection Point :	<u>Isleta diversion structure</u>		
Full Suite Sample Volume:	<u>8 gal</u>	Collection Time Start:	<u>0815</u> End: <u>0900</u>

Field Parameters for each 2-gallon grab

Grab	Time	Temp (°C)	pH	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)
1	0815	15.9	8.51	423	5.43	54.7
2	0830	15.8	7.27	399	5.95	59.7
3	0845	15.6	7.97	394	6.08	60.7
4	0900	15.7	8.01	396	6.21	62.0
Composite	0905	15.5	8.02	395	6.24	62.1

Turbid Water Color Blown Solids Oil/Sheen Foam Odor _____

Analytical - see 2021 COC table

Site Photo Sample Photo

Samplers Chad Johannesen
Sam F. Le

CMC Sampling Data Sheet

Site Identification: Rio Grande at Alameda

Notes:

Full Suite Sample Date and Time:	<u>10/5/22 1340</u>
Full Sample Identification:	<u>R6 Alameda - 20221005</u>
QC Samples:	Duplicate / None QC Sample ID:
QC samples require a DIFFERENT sample time than the environmental sample.	
QC Sample time:	

Full Suite Collection Point :	<u>Alameda Bridge</u>		
Full Suite Sample Volume:	<u>1 gal</u>	Collection Time Start:	<u>1330</u> End: <u>1340</u>

Field Parameters for each 2-gallon grab

Grab	Time	Temp (°C)	pH	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)
1						
2						
3						
4						
Composite	<u>1340</u>	<u>18.0</u>	<u>7.60</u>	<u>275</u>	<u>5.58</u>	<u>57.9</u>

Turbid Water Color 3100 Solids Oil/Sheen Foam Odor _____

Analytical - see 2021 COC table

Site Photo Sample Photo



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 10, 2022

Patrick Chavez
AMAFCA
2600 Prospect Ave NE
Albuquerque, NM 87107
TEL: (505) 884-2215
FAX:

10/5/2022: Alameda and Rio Grande North E.coli only samples

RE: CMC Wet 22

OrderNo.: 2210242

Dear Patrick Chavez:

Hall Environmental Analysis Laboratory received 2 sample(s) on 10/5/2022 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Field Parameters:
Rio Grande North
Temp = 15.9°C
pH = 8.24
Conductivity = 290 uS/cm
Dissolved Oxygen = 5.79 mg/L

Field Parameters:
Rio Grande at Alameda
Temp = 18.0°C
pH = 7.60
Conductivity = 275 uS/cm
Dissolved Oxygen = 5.58 mg/L

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2210242

Date Reported: 10/10/2022

CLIENT: AMAFCA

Client Sample ID: **RG North-20221005**

Project: CMC Wet 22

Collection Date: 10/5/2022 12:05:00 PM

Lab ID: 2210242-001

Matrix: AQUEOUS

Received Date: 10/5/2022 2:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: dms	
E. Coli	135	10.00	10.00		MPN/100	10	10/7/2022 5:05:00 PM	70632

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2210242

Date Reported: 10/10/2022

CLIENT: AMAFCA

Client Sample ID: **RG Alameda-20221005**

Project: CMC Wet 22

Collection Date: 10/5/2022 1:40:00 PM

Lab ID: 2210242-002

Matrix: AQUEOUS

Received Date: 10/5/2022 2:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: dms	
E. Coli	52	10.00	10.00		MPN/100	10	10/7/2022 5:05:00 PM	70632

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Estimated value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

Sample Log-In Check List

Client Name: **AMAFCA**

Work Order Number: **2210242**

RcptNo: 1

Received By: **Juan Rojas** 10/5/2022 2:20:00 PM *Juan Rojas*

Completed By: **Cheyenne Cason** 10/5/2022 2:45:18 PM *Cason*

Reviewed By: *[Signature]* 10-5-22 @ 15:19

Chain of Custody

1. Is Chain of Custody complete? Yes No Not Present
2. How was the sample delivered? Client

Log In

3. Was an attempt made to cool the samples? Yes No NA
4. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
5. Sample(s) in proper container(s)? Samples were collected the same day and chilled. Yes No
6. Sufficient sample volume for indicated test(s)? Yes No
7. Are samples (except VOA and ONG) properly preserved? Yes No
8. Was preservative added to bottles? Yes No NA
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes No NA
10. Were any sample containers received broken? Yes No
11. Does paperwork match bottle labels? Yes No
 (Note discrepancies on chain of custody)
12. Are matrices correctly identified on Chain of Custody? Yes No
13. Is it clear what analyses were requested? Yes No
14. Were all holding times able to be met? Yes No
 (If no, notify customer for authorization.)

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: *KPG 10-05-22*

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	15.1	Good	Not Present			

Chain-of-Custody Record

Client: AMAFCA

Mailing Address:

Phone #:

email or Fax#: pchavez@amafca.org

QA/QC Package:
 Standard Level 4 (Full Validation)

Accreditation: Az Compliance
 NELAC Other

EDD (Type)

Turn-Around Time:

Standard Rush

Project Name:

CMC - Wet 22

Project #:

Project Manager:

Patrick Chavez

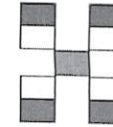
Sampler: C. Johansson

On Ice: Yes No

of Coolers: 1

Cooler Temp (including CF): 15.1 - 0 = 15.1 (°C)

Container Type and #	Preservative Type	HEAL No.
		<u>2210242</u>
		<u>001</u>
		<u>002</u>



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Ecoli - enumerated
									X	
									X	

Date	Time	Matrix	Sample Name
<u>10-5-22</u>	<u>1215</u>	<u>AQ</u>	<u>R6 North - 20221005</u>
<u>10-5-22</u>	<u>1340</u>	<u>AQ</u>	<u>R6 Alameda - 20221005</u>

Date: 10-5-22 Time: 1420 Relinquished by: [Signature]

Received by: [Signature] Via: 000 Date: 10/5/22 Time: 14:20

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 23, 2022

Patrick Chavez

AMAFCA

2600 Prospect Ave NE

Albuquerque, NM 87107

TEL: (505) 884-2215

FAX:

10/5/2022: Rio Grande North
and 10/6/2022: Rio Grande
South

RE: CMC Wet FY23

OrderNo.: 2210315

Dear Patrick Chavez:

Hall Environmental Analysis Laboratory received 3 sample(s) on 10/6/2022 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Field Parameters:
- Rio Grande North
Temp = 15.9°C
pH = 8.24
Conductivity = 290 uS/cm
Dissolved Oxygen = 5.79 mg/L
- Rio Grande South
Temp = 15.5°C
pH = 8.02
Conductivity = 395 uS/cm
Dissolved Oxygen = 6.24 mg/L

Analytical Report

Lab Order: 2210315

Date Reported: 11/23/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: AMAFCA

Client Sample ID: R6 North-20221005

Project: CMC Wet FY23

Collection Date: 10/5/2022 12:15:00 PM

Lab ID: 2210315-001A

Matrix: Aqueous

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8081: PESTICIDES							Analyst: JME
Dieldrin	ND	0.10		µg/L	1	10/17/2022 12:51:12 PM	70767
Surr: Decachlorobiphenyl	94.3	40.9-111		%Rec	1	10/17/2022 12:51:12 PM	70767
Surr: Tetrachloro-m-xylene	64.3	15-107		%Rec	1	10/17/2022 12:51:12 PM	70767

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report

Lab Order: 2210315

Date Reported: 11/23/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: AMAFCA

Client Sample ID: R6 North-20221005

Project: CMC Wet FY23

Collection Date: 10/5/2022 12:15:00 PM

Lab ID: 2210315-001D

Matrix: Aqueous

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 1664B							Analyst: SMS
N-Hexane Extractable Material	ND	9.40		mg/L	1	10/18/2022 6:18:00 PM	70825

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: AMAFCA
Project: CMC Wet FY23
Lab ID: 2210315-001E

Client Sample ID: R6 North-20221005
Collection Date: 10/5/2022 12:15:00 PM
Matrix: Aqueous

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: JTT
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	10/6/2022 11:59:13 PM	A91618
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	10/6/2022 11:59:13 PM	A91618
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: SNS
Total Dissolved Solids	195	20.0		mg/L	1	10/12/2022 8:50:00 AM	70696
SM 4500 NH3: AMMONIA							Analyst: EKM
Nitrogen, Ammonia	ND	1.0		mg/L	1	10/21/2022 1:24:00 PM	R91993
SM4500-H+B / 9040C: PH							Analyst: JTT
pH	8.24		H	pH units	1	10/10/2022 3:56:29 PM	R91722
EPA METHOD 365.1: TOTAL PHOSPHOROUS							Analyst: CJS
Phosphorus, Total (As P)	ND	0.25	D	mg/L	1	10/25/2022 3:03:00 PM	71023
SM 4500 NORG C: TKN							Analyst: EKM
Nitrogen, Kjeldahl, Total	ND	1.0		mg/L	1	10/24/2022 10:19:00 AM	70981
SM 2540D: TSS							Analyst: KS
Suspended Solids	29	4.0		mg/L	1	10/10/2022 3:18:00 PM	70679

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: AMAFCA
Project: CMC Wet FY23
Lab ID: 2210315-001F

Client Sample ID: R6 North-20221005
Collection Date: 10/5/2022 12:15:00 PM
Matrix: Aqueous

Table with columns: Analyses, Result, RL, Qual, Units, DF, Date Analyzed, Batch ID. Row 1: EPA METHOD 365.1: TOTAL PHOSPHOROUS, ND, 0.25, D, mg/L, 1, 10/25/2022 3:04:00 PM, 71023

Dissolved phosphorous

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Table with 2 columns: Qualifiers and their descriptions. Includes codes like *, D, H, ND, PQL, S, B, E, J, P, RL.

Hall Environmental Analysis Laboratory, Inc.

CLIENT: AMAFCA
Project: CMC Wet FY23
Lab ID: 2210315-001G

Client Sample ID: R6 North-20221005
Collection Date: 10/5/2022 12:15:00 PM
Matrix: Aqueous

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
SM2340B: HARDNESS							Analyst: VP
Hardness as CaCO3	120	6.6		mg/L	1	10/14/2022 2:05:00 PM	R91819
EPA METHOD 200.7: METALS							Analyst: VP
Calcium	39	1.0		mg/L	1	10/14/2022 5:58:24 PM	70811
Magnesium	6.8	1.0		mg/L	1	10/14/2022 5:58:24 PM	70811

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: AMAFCA

Client Sample ID: R6 North-20221005

Project: CMC Wet FY23

Collection Date: 10/5/2022 12:15:00 PM

Lab ID: 2210315-001N

Matrix: Aqueous

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: bcv
Copper	0.0011	0.0010		mg/L	1	10/18/2022 1:04:27 PM	A91883
Lead	ND	0.00050		mg/L	1	10/18/2022 1:04:27 PM	A91883

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: AMAFCA
Project: CMC Wet FY23
Lab ID: 2210315-002A

Client Sample ID: R6 South-20221006
Collection Date: 10/6/2022 9:05:00 AM
Matrix: Aqueous

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8081: PESTICIDES							Analyst: JME
Dieldrin	ND	0.10		µg/L	1	10/17/2022 1:04:20 PM	70767
Surr: Decachlorobiphenyl	96.8	40.9-111		%Rec	1	10/17/2022 1:04:20 PM	70767
Surr: Tetrachloro-m-xylene	76.2	15-107		%Rec	1	10/17/2022 1:04:20 PM	70767

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report

Lab Order: 2210315

Date Reported: 11/23/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: AMAFCA

Client Sample ID: R6 South-20221006

Project: CMC Wet FY23

Collection Date: 10/6/2022 9:05:00 AM

Lab ID: 2210315-002B

Matrix: Aqueous

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: dms
E. Coli	<1	1.000		MPN/100	1	10/7/2022 5:05:00 PM	70671

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report

Lab Order: 2210315

Date Reported: 11/23/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: AMAFCA

Client Sample ID: R6 South-20221006

Project: CMC Wet FY23

Collection Date: 10/6/2022 9:05:00 AM

Lab ID: 2210315-002D

Matrix: Aqueous

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 1664B							Analyst: SMS
N-Hexane Extractable Material	ND	9.50		mg/L	1	10/18/2022 6:18:00 PM	70825

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: AMAFCA
Project: CMC Wet FY23
Lab ID: 2210315-002E

Client Sample ID: R6 South-20221006
Collection Date: 10/6/2022 9:05:00 AM
Matrix: Aqueous

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: JTT
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	10/7/2022 1:16:26 AM	A91618
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	10/7/2022 1:16:26 AM	A91618
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: SNS
Total Dissolved Solids	265	100	D	mg/L	1	10/12/2022 8:50:00 AM	70696
SM 4500 NH3: AMMONIA							Analyst: EKM
Nitrogen, Ammonia	ND	1.0		mg/L	1	10/21/2022 1:24:00 PM	R91993
SM4500-H+B / 9040C: PH							Analyst: JTT
pH	8.09		H	pH units	1	10/10/2022 4:00:35 PM	R91722
EPA METHOD 365.1: TOTAL PHOSPHOROUS							Analyst: CJS
Phosphorus, Total (As P)	0.97	0.25	D	mg/L	1	10/25/2022 3:06:00 PM	71023
SM 4500 NORG C: TKN							Analyst: EKM
Nitrogen, Kjeldahl, Total	1.7	1.0		mg/L	1	10/24/2022 10:19:00 AM	70981
SM 2540D: TSS							Analyst: KS
Suspended Solids	890	20	D	mg/L	1	10/10/2022 3:18:00 PM	70679

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: AMAFCA
Project: CMC Wet FY23
Lab ID: 2210315-002F

Client Sample ID: R6 South-20221006
Collection Date: 10/6/2022 9:05:00 AM
Matrix: Aqueous

Table with columns: Analyses, Result, RL, Qual, Units, DF, Date Analyzed, Batch ID. Row 1: EPA METHOD 365.1: TOTAL PHOSPHOROUS, ND, 0.25, D, mg/L, 1, 10/25/2022 3:08:00 PM, 71023

Analyst: CJS

Dissolved phosphorous

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Table with 2 columns: Qualifiers and their descriptions. Includes codes like *, D, H, ND, PQL, S, B, E, J, P, RL.

Analytical Report

Lab Order: 2210315

Date Reported: 11/23/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: AMAFCA
Project: CMC Wet FY23
Lab ID: 2210315-002G

Client Sample ID: R6 South-20221006
Collection Date: 10/6/2022 9:05:00 AM
Matrix: Aqueous

Table with columns: Analyses, Result, RL, Qual, Units, DF, Date Analyzed, Batch ID. Rows include SM2340B: HARDNESS and EPA METHOD 200.7: METALS.

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Table with 2 columns: Qualifiers and their corresponding definitions (e.g., *, D, H, ND, PQL, S, B, E, J, P, RL).

Hall Environmental Analysis Laboratory, Inc.

CLIENT: AMAFCA

Client Sample ID: R6 South-20221006

Project: CMC Wet FY23

Collection Date: 10/6/2022 9:05:00 AM

Lab ID: 2210315-002N

Matrix: Aqueous

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: bcv
Copper	ND	0.0010		mg/L	1	10/18/2022 1:07:08 PM	A91883
Lead	ND	0.00050		mg/L	1	10/18/2022 1:07:08 PM	A91883

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Anatek Labs, Inc.

1282 Alturas Drive - Moscow, ID 83843 - (208) 883-2839 - Fax (208) 8829246 - email moscow@anateklabs.com
504 E Sprague Ste. D - Spokane, WA 99202 - (509) 838-3999 - fax (509) 838-4433 - email spokane@anateklabs.com

Client: Hall Environmental Analysis Lab
Address: 4901 Hawkins NE Suite D
Albuquerque, NM 87109
Attn: Andy Freeman

Work Order: MCJ0294
Project: 2210315
Reported: 11/1/2022 11:21

Analytical Results Report

Sample Location: 2210315-001H (R6 North-20221005)
Lab/Sample Number: MCJ0294-01 **Collect Date:** 10/05/22 12:15
Date Received: 10/07/22 14:03 **Collected By:**
Matrix: Water

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles							
Tetrahydrofuran	ND	ug/L	5.00	10/12/22 18:51	BKP	EPA 8260D	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>104%</i>		<i>70-130</i>	<i>10/12/22 18:51</i>	<i>BKP</i>	<i>EPA 8260D</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>94.8%</i>		<i>70-130</i>	<i>10/12/22 18:51</i>	<i>BKP</i>	<i>EPA 8260D</i>	
<i>Surrogate: Toluene-d8</i>	<i>96.1%</i>		<i>70-130</i>	<i>10/12/22 18:51</i>	<i>BKP</i>	<i>EPA 8260D</i>	

Anatek Labs, Inc.

1282 Alturas Drive - Moscow, ID 83843 - (208) 883-2839 - Fax (208) 8829246 - email moscow@anateklabs.com
504 E Sprague Ste. D - Spokane, WA 99202 - (509) 838-3999 - fax (509) 838-4433 - email spokane@anateklabs.com

Analytical Results Report

(Continued)

Sample Location: 2210315-001I (R6 North-20221005)
Lab/Sample Number: MCJ0294-02 Collect Date: 10/05/22 12:15
Date Received: 10/07/22 14:03 Collected By:
Matrix: Water

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Semivolatiles							
Benzidine	ND	ug/L	1.00	10/18/22 0:20	MH	EPA 8270E	
Benzo[a]anthracene	ND	ug/L	1.00	10/18/22 0:20	MH	EPA 8270E	
Benzo[a]pyrene	ND	ug/L	1.00	10/18/22 0:20	MH	EPA 8270E	
Benzo[b]fluoranthene	ND	ug/L	1.00	10/18/22 0:20	MH	EPA 8270E	
Benzo[k]fluoranthene	ND	ug/L	1.00	10/18/22 0:20	MH	EPA 8270E	
bis(2-Ethylhexyl)phthalate	ND	ug/L	1.00	10/18/22 0:20	MH	EPA 8270E	
Chrysene	ND	ug/L	1.00	10/18/22 0:20	MH	EPA 8270E	
Dibenz[a,h]anthracene	ND	ug/L	1.00	10/18/22 0:20	MH	EPA 8270E	
Dibenzofuran	ND	ug/L	1.00	10/18/22 0:20	MH	EPA 8270E	
Indeno[1,2,3-cd]pyrene	ND	ug/L	1.00	10/18/22 0:20	MH	EPA 8270E	
Pentachlorophenol	ND	ug/L	1.00	10/18/22 0:20	MH	EPA 8270E	
<hr/>							
Surrogate: Terphenyl-d14	64.9%		57-133	10/18/22 0:20	MH	EPA 8270E	

Anatek Labs, Inc.

1282 Alturas Drive - Moscow, ID 83843 - (208) 883-2839 - Fax (208) 8829246 - email moscow@anateklabs.com
504 E Sprague Ste. D - Spokane, WA 99202 - (509) 838-3999 - fax (509) 838-4433 - email spokane@anateklabs.com

Analytical Results Report

(Continued)

Sample Location: 2210315-002H (R6 South-20221006)
Lab/Sample Number: MCJ0294-03 Collect Date: 10/06/22 09:05
Date Received: 10/07/22 14:03 Collected By:
Matrix: Water

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles							
Tetrahydrofuran	ND	ug/L	5.00	10/12/22 19:21	BKP	EPA 8260D	
Surrogate: 1,2-Dichlorobenzene-d4	104%		70-130	10/12/22 19:21	BKP	EPA 8260D	
Surrogate: 4-Bromofluorobenzene	92.6%		70-130	10/12/22 19:21	BKP	EPA 8260D	
Surrogate: Toluene-d8	96.5%		70-130	10/12/22 19:21	BKP	EPA 8260D	

Anatek Labs, Inc.

1282 Alturas Drive - Moscow, ID 83843 - (208) 883-2839 - Fax (208) 8829246 - email moscow@anateklabs.com
504 E Sprague Ste. D - Spokane, WA 99202 - (509) 838-3999 - fax (509) 838-4433 - email spokane@anateklabs.com

Analytical Results Report

(Continued)

Sample Location: 2210315-002I (R6 South-20221006)
Lab/Sample Number: MCJ0294-04 Collect Date: 10/06/22 09:05
Date Received: 10/07/22 14:03 Collected By:
Matrix: Water

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Semivolatiles							
Benzidine	ND	ug/L	2.50	10/18/22 0:47	MH	EPA 8270E	
Benzo[a]anthracene	ND	ug/L	2.50	10/18/22 0:47	MH	EPA 8270E	
Benzo[a]pyrene	ND	ug/L	2.50	10/18/22 0:47	MH	EPA 8270E	
Benzo[b]fluoranthene	ND	ug/L	2.50	10/18/22 0:47	MH	EPA 8270E	
Benzo[k]fluoranthene	ND	ug/L	2.50	10/18/22 0:47	MH	EPA 8270E	
bis(2-Ethylhexyl)phthalate	ND	ug/L	2.50	10/18/22 0:47	MH	EPA 8270E	
Chrysene	ND	ug/L	2.50	10/18/22 0:47	MH	EPA 8270E	
Dibenz[a,h]anthracene	ND	ug/L	2.50	10/18/22 0:47	MH	EPA 8270E	
Dibenzofuran	ND	ug/L	2.50	10/18/22 0:47	MH	EPA 8270E	
Indeno[1,2,3-cd]pyrene	ND	ug/L	2.50	10/18/22 0:47	MH	EPA 8270E	
Pentachlorophenol	ND	ug/L	2.50	10/18/22 0:47	MH	EPA 8270E	
<hr/>							
Surrogate: Terphenyl-d14	78.7%		57-133	10/18/22 0:47	MH	EPA 8270E	

Anatek Labs, Inc.

1282 Alturas Drive - Moscow, ID 83843 - (208) 883-2839 - Fax (208) 8829246 - email moscow@anateklabs.com
504 E Sprague Ste. D - Spokane, WA 99202 - (509) 838-3999 - fax (509) 838-4433 - email spokane@anateklabs.com

Analytical Results Report (Continued)

Sample Location: 2210315-003A (Trip Blank)
Lab/Sample Number: MCJ0294-05 Collect Date: 10/06/22 00:00
Date Received: 10/07/22 14:03 Collected By:
Matrix: Water

Analyte	Result	Units	PQL	Analyzed	Analyst	Method	Qualifier
Volatiles							
Tetrahydrofuran	ND	ug/L	0.500	10/12/22 19:51	BKP	EPA 8260D	
Surrogate: 1,2-Dichlorobenzene-d4	104%		70-130	10/12/22 19:51	BKP	EPA 8260D	
Surrogate: 4-Bromofluorobenzene	91.6%		70-130	10/12/22 19:51	BKP	EPA 8260D	
Surrogate: Toluene-d8	104%		70-130	10/12/22 19:51	BKP	EPA 8260D	

Authorized Signature,



Justin Doty For Todd Taruscio, Laboratory Manager

PQL Practical Quantitation Limit
ND Not Detected
MCL EPA's Maximum Contaminant Level
Dry Sample results reported on a dry weight basis
* Not a state-certified analyte

This report shall not be reproduced except in full, without the written approval of the laboratory
The results reported related only to the samples indicated.

Anatek Labs, Inc.

1282 Alturas Drive - Moscow, ID 83843 - (208) 883-2839 - Fax (208) 8829246 - email moscow@anateklabs.com
 504 E Sprague Ste. D - Spokane, WA 99202 - (509) 838-3999 - fax (509) 838-4433 - email spokane@anateklabs.com

Quality Control Data

Semivolatiles

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BCJ0360 - SVOC Water										
Blank (BCJ0360-BLK1)										
Prepared: 10/10/2022 Analyzed: 10/17/2022										
Dibenzofuran	ND		0.500	ug/L						
Benzidine	ND		0.500	ug/L						
Indeno(1,2,3-cd)pyrene	ND		0.500	ug/L						
Dibenz(a,h)anthracene	ND		0.500	ug/L						
Chrysene	ND		0.500	ug/L						
Di (2-ethylhexyl) phthalate	ND		0.500	ug/L						
Benzo[k]fluoranthene	ND		0.500	ug/L						
Benzo[b]fluoranthene	ND		0.500	ug/L						
Benzo[a]pyrene	ND		0.500	ug/L						
Benzo[a]anthracene	ND		0.500	ug/L						
Pentachlorophenol	ND		0.500	ug/L						
<i>Surrogate: Terphenyl-d14</i>			18.7	ug/L	25.0		74.9	57-133		
LCS (BCJ0360-BS1)										
Prepared: 10/10/2022 Analyzed: 10/17/2022										
Dibenzofuran	4.43		0.500	ug/L	5.00		88.6	75-120		
Benzo[a]anthracene	4.38		0.500	ug/L	5.00		87.6	80-120		
Benzo[a]pyrene	4.25		0.500	ug/L	5.00		85.0	66-116		
Benzo[b]fluoranthene	4.61		0.500	ug/L	5.00		92.2	72-116		
Benzo[k]fluoranthene	4.97		0.500	ug/L	5.00		99.4	71-121		
Di (2-ethylhexyl) phthalate	5.39		0.500	ug/L	5.00		108	60-144		
Indeno(1,2,3-cd)pyrene	4.19		0.500	ug/L	5.00		83.8	62-123		
Pentachlorophenol	4.17		0.500	ug/L	5.00		83.4	51-118		
Chrysene	4.70		0.500	ug/L	5.00		94.0	74-124		
Dibenz(a,h)anthracene	4.16		0.500	ug/L	5.00		83.2	62-120		
LCS Dup (BCJ0360-BSD1)										
Prepared: 10/10/2022 Analyzed: 10/17/2022										
Di (2-ethylhexyl) phthalate	4.79		0.500	ug/L	5.00		95.8	60-144	11.8	32
Pentachlorophenol	4.51		0.500	ug/L	5.00		90.2	51-118	7.83	25
Indeno(1,2,3-cd)pyrene	4.05		0.500	ug/L	5.00		81.0	62-123	3.40	25
Dibenzofuran	4.46		0.500	ug/L	5.00		89.2	75-120	0.675	25
Chrysene	4.79		0.500	ug/L	5.00		95.8	74-124	1.90	25
Benzo[k]fluoranthene	5.08		0.500	ug/L	5.00		102	71-121	2.19	25
Benzo[b]fluoranthene	4.47		0.500	ug/L	5.00		89.4	72-116	3.08	25
Benzo[a]pyrene	4.07		0.500	ug/L	5.00		81.4	66-116	4.33	25
Benzo[a]anthracene	4.38		0.500	ug/L	5.00		87.6	80-120	0.00	25
Dibenz(a,h)anthracene	3.91		0.500	ug/L	5.00		78.2	62-120	6.20	30

Quality Control Data

Volatiles

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BCJ0445 - VOC										
Blank (BCJ0445-BLK1)										
Prepared & Analyzed: 10/12/2022										
Tetrahydrofuran	ND		0.500	ug/L						
<i>Surrogate: 4-Bromofluorobenzene</i>			23.7	ug/L	25.0		94.6	70-130		
<i>Surrogate: Toluene-d8</i>			24.7	ug/L	25.0		98.6	70-130		
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>			19.1	ug/L	19.0		100	70-130		

Anatek Labs, Inc.

1282 Alturas Drive - Moscow, ID 83843 - (208) 883-2839 - Fax (208) 8829246 - email moscow@anateklabs.com
504 E Sprague Ste. D - Spokane, WA 99202 - (509) 838-3999 - fax (509) 838-4433 - email spokane@anateklabs.com

Quality Control Data (Continued)

Volatiles (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BCJ0445 - VOC (Continued)										
LCS (BCJ0445-BS1)										
Tetrahydrofuran	11.7		1.00	ug/L	10.0		117	80-120		



SUB CONTRACTOR: Anatek ID	COMPANY: Anatek Labs, Inc.	PHONE: (208) 883-2839	FAX: (208) 882-9246
ADDRESS: 1282 Alturas Dr		ACCOUNT #:	EMAIL:
CITY, STATE, ZIP: Moscow, ID 83843			

ITEM	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE	# CONTAINERS	ANALYTICAL COMMENTS
1	2210315-001H	R6 North-20221005	VOAHCL	Aqueous	10/5/2022 12:15:00 PM	3	8260 Tetrahydrofuran Only
2	2210315-001I	R6 North-20221005	1LAMGU	Aqueous	10/5/2022 12:15:00 PM	3	8270 - See attached
3	2210315-002H	R6 South-20221006	VOAHCL	Aqueous	10/6/2022 9:05:00 AM	3	8260 Tetrahydrofuran Only
4	2210315-002I	R6 South-20221006	1LAMGU	Aqueous	10/6/2022 9:05:00 AM	2	8270 - See attached
5	2210315-003A	Trip Blank	VOAHCL	Trip Blank		2	8260 Tetrahydrofuran Only

SPECIAL INSTRUCTIONS / COMMENTS:

Please include the LAB ID and the CLIENT SAMPLE ID on all final reports. Please e-mail results to lab@hallenvironmental.com. Please return all coolers and blue ice. Thank you.

Relinquished By: <i>SA</i>	Date: 10/6/2022	Time: 2:34 PM	Received By: <i>JKT</i>	Date: <i>10/7/22</i>	Time: <i>14:03</i>	REPORT TRANSMITTAL DESIRED: <input type="checkbox"/> HARDCOPY (extra cost) <input type="checkbox"/> FAX <input type="checkbox"/> EMAIL <input type="checkbox"/> ONLINE FOR LAB USE ONLY Temp of samples _____ °C Attempt to Cool? _____ Comments: _____
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	
TAT: Standard <input checked="" type="checkbox"/> RUSH Next BD <input type="checkbox"/> 2nd BD <input type="checkbox"/> 3rd BD <input type="checkbox"/>						

Attached Sheet

MCJ0294



Due: 10/24/22

Collaborative Monitoring Cooperative - Analyses List Attach to Chain of Custody

Please refer to attached NPDES Permit No. NMR04A00.Appendix F. Methods and minimum quantities (MQL's) will be those approved under 40 CFR 136 and specified in the attached permit

Analyte (Bold Indicates WQS)	CAS #	Fraction	Method #	MDL (µg/L)
Hardness (Ca + Mg)	NA	Total	200.7	2.4
Lead	7439-92-1	Dissolved	200.8	0.09
Copper	7440-50-8	Dissolved	200.8	1.06
Ammonia + organic nitrogen	7664-41-7	Total	350.1	31.32
Total Kjeldahl Nitrogen	17778-88-0	Total	351.2	58.78
Nitrate + Nitrite	14797-55-8	Total	353.2	10.17
Polychlorinated biphenyls (PCBs)	1336-36-3	Total	1668	0.014
Tetrahydrofuran (THF)	109-99-9	Total	8260C	7.9
bis(2-Ethylhexyl)phthalate	117-81-7	Total	8270D	0.2
Dibenzofuran	132-64-9	Total	8270D	0.2
Indeno(1,2,3-cd)pyrene	193-39-5	Total	8270D	0.2
Benzo(b)fluoranthene	205-99-2	Total	8270D	0.1
Benzo(k)fluoranthene	207-08-9	Total	8270D	0.1
Chrysene	218-01-9	Total	8270D	0.2
Benzo(a)pyrene	50-32-8	Total	8270D	0.3
Dibenzo(a,h)anthracene	53-70-3	Total	8270D	0.2
Benzo(a)anthracene	56-55-3	Total	8270D	0.2
Dieldrin	60-57-1	Total	8081	0.1
Pentachlorophenol	87-86-5	Total	8270D	0.2
Benzidine	92-87-5	Total	8270D	0.1
Chemical Oxygen Demand	E1641638 ²	Total	HACH	5100
Gross alpha (adjusted)	NA	Total	Method 900	0.1 pCi/L
Total Dissolved Solids	E1642222 ²	Total	SM 2540C	60.4
Total Suspended Solids	NA	Total	SM 2540D	3450
Biological Oxygen Demand	N/A	Total	Standard Methods	930
Oil and Grease		Total	1664A	5000
Ecoli-enumeration			SM 9223B	
pH			SM 4500	
Phosphorus		Dissolved	365.1	100
Phosphorus		Total	365.1	100
Chromium IV		Total	3500Cr C-2011	100



Sample Receipt and Preservation Form

MCJ0294



Due: 10/24/22

Client Name: Hall

TAT: Normal RUSH: _____ days

Samples Received From: FedEx UPS USPS Client Courier Other: _____

Custody Seal on Cooler/Box: Yes No Custody Seals Intact: Yes No N/A

Number of Coolers/Boxes: 4 Type of Ice: Wet Ice Ice Packs Dry Ice None

Packing Material: Bubble Wrap Bags Foam/Peanuts Paper None Other: _____

Cooler Temp As Read (°C): 3.8 Cooler Temp Corrected (°C): - Thermometer Used: IR-5

Comments:

Samples Received Intact? Yes No N/A
 Chain of Custody Present? Yes No N/A
 Samples Received Within Hold Time? Yes No N/A
 Samples Properly Preserved? Yes No N/A
 VOC Vials Free of Headspace (<6mm)? Yes No N/A
 VOC Trip Blanks Present? Yes No N/A
 Labels and Chains Agree? Yes No N/A
 Total Number of Sample Bottles Received: 11

One of 2 trip blanks
2210315-003A excessive HS

Chain of Custody Fully Completed? Yes No N/A
 Correct Containers Received? Yes No N/A
 Anatek Bottles Used? Yes No Unknown

Record preservatives (and lot numbers, if known) for containers below:

HCl - 8260 Tetrahydrofuran only - g 44mL x 6 + 2 TBs

Notes, comments, etc. (also use this space if contacting the client - record names and date/time)

8270 (see attached) - g 2L x 3 (2210315-001E x 2)

Received/Inspected By: JKA Date/Time: 10/7/22 14:03

Hall Environmental Analysis Laboratory

Sample Delivery Group: L1544321

Samples Received: 10/07/2022

Project Number:

Description:

Report To: Andy Freeman
4901 Hawkins NE
Albuquerque, NM 87109

Entire Report Reviewed By:

John Hawkins
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

Cp: Cover Page	1	
Tc: Table of Contents	2	
Ss: Sample Summary	3	
Cn: Case Narrative	4	
Sr: Sample Results	5	
2210315-001KM R6 NORTH-20221005 L1544321-01	5	
2210315-002KM R6 SOUTH-20221006 L1544321-02	6	
Qc: Quality Control Summary	7	
Wet Chemistry by Method 3500Cr C-2011	7	
Wet Chemistry by Method 410.4	8	
Gl: Glossary of Terms	10	
Al: Accreditations & Locations	11	
Sc: Sample Chain of Custody	12	
		

SAMPLE SUMMARY

2210315-001KM R6 NORTH-20221005 L1544321-01 GW

Collected by:
 Collected date/time: 10/05/22 12:15
 Received date/time: 10/07/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 3500Cr C-2011	WG1938076	1	10/12/22 07:17	10/12/22 07:17	ARD	Mt. Juliet, TN
Wet Chemistry by Method 410.4	WG1939857	1	10/09/22 17:30	10/09/22 20:03	EPW	Mt. Juliet, TN

- 1
Cp
- 2
Tc
- 3
Ss
- 4
Cn
- 5
Sr
- 6
Qc
- 7
Gl
- 8
Al
- 9
Sc

2210315-002KM R6 SOUTH-20221006 L1544321-02 GW

Collected by:
 Collected date/time: 10/06/22 09:05
 Received date/time: 10/07/22 09:00

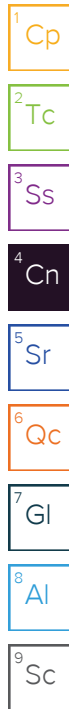
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 3500Cr C-2011	WG1938076	1	10/12/22 07:25	10/12/22 07:25	ARD	Mt. Juliet, TN
Wet Chemistry by Method 410.4	WG1940273	1	10/10/22 13:00	10/10/22 16:42	TQP	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



John Hawkins
Project Manager



Wet Chemistry by Method 3500Cr C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.000500	1	10/12/2022 07:17	WG1938076

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
COD	22.3		20.0	1	10/09/2022 20:03	WG1939857

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Wet Chemistry by Method 3500Cr C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Hexavalent Chromium	ND		0.000500	1	10/12/2022 07:25	WG1938076

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
COD	ND		20.0	1	10/10/2022 16:42	WG1940273

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Method Blank (MB)

(MB) R3849771-1 10/11/22 21:36

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Hexavalent Chromium	U		0.000150	0.000500

L1542321-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1542321-01 10/11/22 22:35 • (DUP) R3849771-5 10/11/22 22:42

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Hexavalent Chromium	ND	ND	1	0.000		20

L1542881-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1542881-01 10/12/22 00:15 • (DUP) R3849771-6 10/12/22 00:22

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Hexavalent Chromium	ND	ND	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3849771-2 10/11/22 21:43

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Hexavalent Chromium	0.00200	0.00205	102	90.0-110	

L1542312-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1542312-01 10/11/22 22:10 • (MS) R3849771-3 10/11/22 22:19 • (MSD) R3849771-4 10/11/22 22:27

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Hexavalent Chromium	0.0500	ND	0.0507	0.0511	101	102	1	90.0-110			0.884	20

L1543260-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1543260-01 10/12/22 00:38 • (MS) R3849771-7 10/12/22 01:01

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Hexavalent Chromium	0.0500	ND	0.0503	101	1	90.0-110	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3846395-1 10/09/22 19:50

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
COD	U		11.7	20.0

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1543424-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1543424-01 10/09/22 19:54 • (DUP) R3846395-3 10/09/22 19:55

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
COD	47.4	47.7	1	0.610		20

L1544335-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1544335-01 10/09/22 20:03 • (DUP) R3846395-6 10/09/22 20:04

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
COD	32.2	32.7	1	1.60		20

Laboratory Control Sample (LCS)

(LCS) R3846395-2 10/09/22 19:53

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
COD	500	537	107	90.0-110	

L1543925-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1543925-02 10/09/22 19:56 • (MS) R3846395-4 10/09/22 19:57 • (MSD) R3846395-5 10/09/22 19:58

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
COD	500	263	1160	1170	180	181	1	80.0-120	<u>E J5</u>	<u>E J5</u>	0.549	20

Sample Narrative:

MS: Matrix spike failure due to matrix interference.
MSD: Matrix spike failure due to matrix interference.

Method Blank (MB)

(MB) R3846784-1 10/10/22 16:33

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
COD	U		11.7	20.0

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1544252-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1544252-02 10/10/22 16:36 • (DUP) R3846784-5 10/10/22 16:36

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
COD	33.9	37.2	1	9.50		20

L1544331-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1544331-02 10/10/22 16:42 • (DUP) R3846784-6 10/10/22 16:42

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
COD	33.9	28.6	1	16.9		20

Laboratory Control Sample (LCS)

(LCS) R3846784-2 10/10/22 16:34

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
COD	500	483	96.7	90.0-110	

L1544093-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1544093-01 10/10/22 16:34 • (MS) R3846784-3 10/10/22 16:34 • (MSD) R3846784-4 10/10/22 16:34

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
COD	500	ND	532	549	106	110	1	80.0-120			3.15	20

GLOSSARY OF TERMS

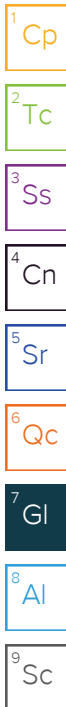
Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.



ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

¹ Cp

² Tc

³ Ss

⁴ Cn

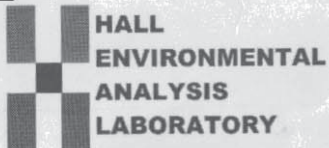
⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



CHAIN OF CUSTODY RECORD

PAGE: 1 OF: 1

Hall Environmental Analysis Laboratory
 4901 Hawkins NE
 Albuquerque, NM 87109
 TEL: 505-345-3975
 FAX: 505-345-4107
 Website: www.hallenvironmental.com

J091

SUB CONTRACTOR: **Pace TN** COMPANY: **PACE TN** PHONE: **(800) 767-5859** FAX: **(615) 758-5859**
 ADDRESS: **12065 Lebanon Rd** ACCOUNT #: EMAIL:
 CITY, STATE, ZIP: **Mt. Juliet, TN 37122**

ITEM	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE	# CONTAINERS	ANALYTICAL COMMENTS
1	2210315-001K	R6 North-20221005	500HDPEH2 504	Aqueous	10/5/2022 12:15:00 PM	1	COD
2	2210315-001M	R6 North-20221005	120mL	Aqueous	10/5/2022 12:15:00 PM	1	HEXAVALENT CHROMIUM
3	2210315-002K	R6 South-20221006	500HDPEH2 504	Aqueous	10/6/2022 9:05:00 AM	1	COD
4	2210315-002M	R6 South-20221006	120mL	Aqueous	10/6/2022 9:05:00 AM	1	HEXAVALENT CHROMIUM

L1944321

cont. - 4
 0221 5755 8093 2632

Sample Receipt Checklist

CCC Seal Present/Intact: Y N If Applicable
 CCC Signed/Accurate: Y N VOA Zero Headspace: Y N
 Bottles arrive intact: Y N Pres. Correct/Check: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 RAD Screen <0.5 mR/hr: Y N

SPECIAL INSTRUCTIONS / COMMENTS:

Please include the LAB ID and the CLIENT SAMPLE ID on all final reports. Please e-mail results to lab@hallenvironmental.com. Please return all coolers and blue ice. Thank you.

Relinquished By: <i>See</i>	Date: 10/6/2022	Time: 11:42 AM	Received By: <i>[Signature]</i>	Date: 10/07/22	Time: 0910	REPORT TRANSMITTAL DESIRED: <input type="checkbox"/> HARDCOPY (extra cost) <input type="checkbox"/> FAX <input type="checkbox"/> EMAIL <input type="checkbox"/> ONLINE FOR LAB USE ONLY Temp of samples <i>NSM 5.8+0-5.8</i> °C Attempt to Cool? _____ Comments: _____
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	

TAT: Standard RUSH Next BD 2nd BD 3rd BD

November 10, 2022

Andy Freeman
Hall Environmental
4901 Hawkins NE
Albuquerque, NM 87109

RE: Project: 2210315
Pace Project No.: 30528336

Dear Andy Freeman:

Enclosed are the analytical results for sample(s) received by the laboratory on October 07, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Carla Cmar
carla.cmar@pacelabs.com
(724)850-5600
Project Manager

Enclosures

cc: Ms. Jackie Ball, Hall Environmental
Michelle Garcia, Hall Environmental



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

CERTIFICATIONS

Project: 2210315
Pace Project No.: 30528336

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

SAMPLE SUMMARY

Project: 2210315
Pace Project No.: 30528336

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30528336001	2210315-001L/R6 North-20221005	Water	10/05/22 12:15	10/07/22 09:25
30528336002	2210315-002L/ R6 South-2022100	Water	10/06/22 09:05	10/07/22 09:25

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

SAMPLE ANALYTE COUNT

Project: 2210315
Pace Project No.: 30528336

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30528336001	2210315-001L/R6 North-20221005	EPA 900.0	SVM	1	PASI-PA
		EPA 900.0	JAL	1	PASI-PA
30528336002	2210315-002L/ R6 South-2022100	EPA 900.0	SVM	1	PASI-PA
		EPA 900.0	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

PROJECT NARRATIVE

Project: 2210315
Pace Project No.: 30528336

Method: EPA 900.0
Description: 900.0 Gross Alpha/Beta
Client: Hall Environmental
Date: November 10, 2022

General Information:

2 samples were analyzed for EPA 900.0 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

PROJECT NARRATIVE

Project: 2210315
Pace Project No.: 30528336

Method: EPA 900.0
Description: Adjusted Gross Alpha
Client: Hall Environmental
Date: November 10, 2022

General Information:

2 samples were analyzed for EPA 900.0 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2210315
Pace Project No.: 30528336

Sample: 2210315-001L/R6 North-20221005		Lab ID: 30528336001	Collected: 10/05/22 12:15	Received: 10/07/22 09:25	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Gross Alpha	EPA 900.0	2.00 ± 1.50	(2.55)	pCi/L	10/14/22 08:41	12587-46-1	
Pace Analytical Services - Greensburg							
Adjusted Gross Alpha	EPA 900.0	0.895 ± NA	(NA)	pCi/L	11/10/22 15:20		
C:NA T:NA							

Sample: 2210315-002L/ R6 South-2022100		Lab ID: 30528336002	Collected: 10/06/22 09:05	Received: 10/07/22 09:25	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Gross Alpha	EPA 900.0	25.3 ± 5.74	(3.07)	pCi/L	10/13/22 19:38	12587-46-1	
Pace Analytical Services - Greensburg							
Adjusted Gross Alpha	EPA 900.0	22.98 ± NA	(NA)	pCi/L	11/10/22 15:20		
C:NA T:NA							

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL - RADIOCHEMISTRY

Project: 2210315
Pace Project No.: 30528336

QC Batch: 538872	Analysis Method: EPA 900.0
QC Batch Method: EPA 900.0	Analysis Description: 900.0 Gross Alpha/Beta
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30528336001, 30528336002

METHOD BLANK: 2614993 Matrix: Water

Associated Lab Samples: 30528336001, 30528336002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Gross Alpha	0.883 ± 0.808 (1.48) C:NA T:NA	pCi/L	10/14/22 08:19	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALIFIERS

Project: 2210315
Pace Project No.: 30528336

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

SUB CONTRACTOR: Pace-Greensburg		COMPANY: Pace Analytical Services, Inc.		PHONE: (724) 850-5600	FAX: (724) 850-5601		
ADDRESS: 1638 Roseytown Rd Ste 2,3,4				ACCOUNT #:	EMAIL:		
CITY, STATE, ZIP: Greensburg, PA 15601							
ITEM	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE	# CONTAINERS	ANALYTICAL COMMENTS
1	2210315-001L	R6 North-20221005	1LHDPEHNO	Aqueous	10/5/2022 12:15:00 PM	2	Adjusted Gross Alpha
2	2210315-002L	R6 South-20221006	1LHDPEHNO	Aqueous	10/6/2022 9:05:00 AM	2	Adjusted Gross Alpha

WO# : 30528336



SPECIAL INSTRUCTIONS / COMMENTS:

Please include the LAB ID and the CLIENT SAMPLE ID on all final reports. Please e-mail results to lab@hallenvironmental.com. Please return all coolers and blue ice. Thank you.

Relinquished By: <i>SL</i>	Date: 10/6/2022	Time: 11:46 AM	Received By: <i>[Signature]</i>	Date: 10/11/22	Time: 9:25	REPORT TRANSMITTAL DESIRED:	
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	<input type="checkbox"/> HARDCOPY (extra cost)	<input type="checkbox"/> FAX
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	<input type="checkbox"/> EMAIL	<input type="checkbox"/> ONLINE
TAT: Standard <input checked="" type="checkbox"/> RUSH Next BD <input type="checkbox"/> 2nd BD <input type="checkbox"/> 3rd BD <input type="checkbox"/>						FOR LAB USE ONLY	
						Temp of samples _____ °C Attempt to Cool? _____	
						Comments: _____	



DC#_Title: ENV-FRM-GBUR-0088 v02_Sample Condition Upon Receipt-Pittsburgh

Effective Date: 10/03/2022

Client Name:

Hall

Project #:

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking Number:

5344 4102 7710

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No

Thermometer Used: _____ Type of Ice: Wet Blue None

Cooler Temperature: Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C
Temp should be above freezing to 6°C

Examined By	PS
Labeled By	PS
Temped By	_____

Comments:	pH paper Lot#			D.P.D. Residual Chlorine Lot #
	Yes	No	NA	
Chain of Custody Present	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1000421
Chain of Custody Filled Out: -Were client corrections present on COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
Chain of Custody Relinquished	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3
Sample Labels match COC: -Includes date/time/ID Matrix: <u>WT</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5
Short Hold Time Analysis (<72hr remaining):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6
Rush Turn Around Time Requested:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8
Correct Containers Used: -Pace Containers Used	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10
Orthophosphate field filtered:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11
Hex Cr Aqueous samples field filtered:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12
Organic Samples checked for dechlorination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13
Filtered volume received for dissolved tests:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14
All containers checked for preservation: exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15
All containers meet method preservation requirements:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Initial when completed <u>PS</u> Date/Time of Preservation
Trip Blank Present:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Lot# of added Preservative
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Rad Samples Screened <0.5 mrem/hr.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed <u>PS</u> Date: <u>10/17/22</u> Survey Meter SN: <u>1563</u>
Comments:	<u>PH < 2</u>			

WO#: 30528336

Due Date: 10/28/22
PM: HMC
CLIENT: HALL ENVIRON

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office. PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.



Pace Greensburg Lab -Sample Container Count

Client _____

Profile Number 1845

Site 7210315

Notes _____

Sample Line Item	Matrix	AG1H	AG1S	AG1T	AG2U	AG3S	AG3U	AG5U	AG5T	BG1U	BG2U	BP1N	BP1U	BP2S	BP2U	BP3C	BP3N	BP3S	BP3U	DG9S	GCUB	VG9H	VG9T	VG9U	VOAK	WGFU	WGKU	ZPLC	
1	W											2																	
2	W											2																	
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

WO# : 30528336

PM: HMC Due Date: 10/28/22
 CLIENT: HALL ENVIRON

Container Codes

Glass			
AG3U	250mL amber glass unpreserved		
AG3S	250mL amber glass H2SO4	WGKU	8oz wide jar unpreserved
AG2U	500mL amber glass unpreserved		
BG2U	500mL clear glass unpreserved		
WGFU	4oz wide jar unpreserved		
JGFU	4oz amber wide jar		
VG9H	40mL clear VOA vial HCl		
VG9T	40mL clear VOA vial Na Thiosulfate		
VG9U	40mL clear VOA vial		
DG9S	40mL amber VOA vial H2SO4		
GJN	1 Gallon Jug		
AG1S	1L amber glass H2SO4		
AG1H	1L amber glass HCl		
AG1T	1L amber glass Na Thiosulfate		
BG1U	1L clear glass unpreserved		
AG5T	100mL amber glass Na Thiosulfate		
AG5U	100mL amber glass unpreserved		
AG1H	1 Gallon Jug with HNO3		

Plastic / Misc.	
BP2U	500mL plastic unpreserved
BP2S	500mL plastic H2SO4
BP3C	250ml plastic NAOH
BP3U	250mL plastic unpreserved
BP3N	250mL plastic HNO3
BP3S	250mL plastic H2SO4
BP1U	1L plastic unpreserved
BP1N	1L plastic HNO3
SP5T	120mL Coliform Na Thiosulfate
12GN	1/2 Gallon Cubitainer
GCUB	1 Gallon Cubitainer

EZI	5g Encore
VOAK	Kit for Volatile Solid
I	Wipe/Swab
ZPLC	Ziploc Bag
WT	Water
SL	Solid
OL	Non-aqueous liquid
WP	Wipe

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Pace Analytical - Greensburg, PA

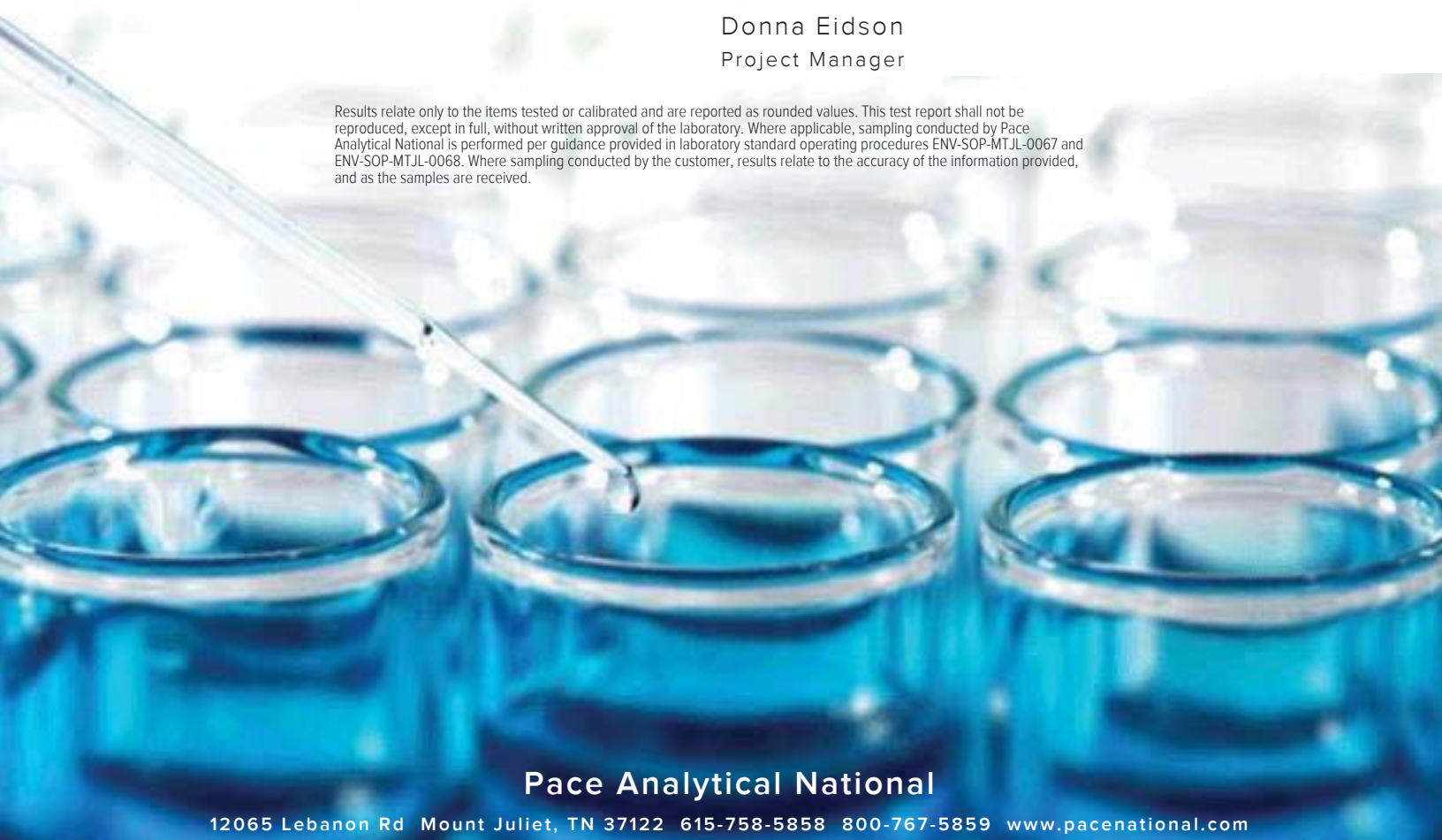
Sample Delivery Group: L1547177
Samples Received: 10/15/2022
Project Number: 30528336
Description: 2210315
Site: 001
Report To: Carla Cmar
1638 Roseytown Road
Greensburg, PA 15601

Entire Report Reviewed By:



Donna Eidson
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

Cp: Cover Page	1	¹ Cp
Tc: Table of Contents	2	
Ss: Sample Summary	3	² Tc
Cn: Case Narrative	4	
Sr: Sample Results	5	³ Ss
2210315-001L/R6 NORTH-20221005 L1547177-01	5	
2210315-002L//R6 SOUTH-2022100 L1547177-02	6	⁴ Cn
Qc: Quality Control Summary	7	⁵ Sr
Radiochemistry by Method D5174	7	
Gl: Glossary of Terms	8	⁶ Qc
Al: Accreditations & Locations	9	⁷ Gl
Sc: Sample Chain of Custody	10	⁸ Al
		⁹ Sc

SAMPLE SUMMARY

				Collected by	Collected date/time	Received date/time
2210315-001L/R6 NORTH-20221005 L1547177-01 Non-Potable Water					10/05/22 12:15	10/15/22 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method D5174	WG1949166	1	11/03/22 14:48	11/09/22 16:17	SNR	Mt. Juliet, TN

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

				Collected by	Collected date/time	Received date/time
2210315-002L//R6 SOUTH-2022100 L1547177-02 Non-Potable Water					10/06/22 09:05	10/15/22 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method D5174	WG1949166	1	11/03/22 14:48	11/09/22 16:20	SNR	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Donna Eidson
Project Manager

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc

Radiochemistry by Method D5174

Analyte	Result	Qualifier	Uncertainty	RDL	Analysis Date	Batch
Uranium	1.65		0.0549	1.00	11/09/2022 16:17	WG1949166

- ¹Cp
- ²Tc
- ³Ss
- ⁴Cn
- ⁵Sr
- ⁶Qc
- ⁷Gl
- ⁸Al
- ⁹Sc

Radiochemistry by Method D5174

Analyte	Result	Qualifier	Uncertainty	RDL	Analysis Date	Batch
	ug/l		+ / -	ug/l	date / time	
Uranium	3.46		0.115	1.00	11/09/2022 16:20	WG1949166

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Method Blank (MB)

(MB) R3859221-1 11/09/22 15:57

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Uranium	U		1.00	1.00

Laboratory Control Sample (LCS)

(LCS) R3859221-2 11/09/22 16:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Uranium	30.0	29.2	97.5	80.0-120	

L1547600-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1547600-01 11/09/22 16:58 • (MS) R3859221-3 11/09/22 16:02 • (MSD) R3859221-5 11/09/22 16:07

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Uranium	20.0	ND	20.3	20.1	101	101	1	75.0-125			0.781	20

L1547600-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1547600-02 11/09/22 17:00 • (MS) R3859221-4 11/09/22 16:04 • (MSD) R3859221-6 11/09/22 16:10

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Uranium	20.0	ND	18.7	19.3	93.6	96.5	1	75.0-125			3.07	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

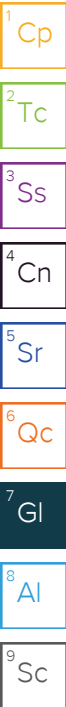
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.



ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

D171



Internal Transfer Chain of Custody



Samples Pre-Logged into eCOC.

State Of Origin: NM

Cert. Needed: Yes No

Owner Received Date: 10/7/2022 Results Requested By: 11/4/2022

Workorder: 30528336

Workorder Name: 2210315

Report To Subcontract To Requested Analysis

Hollie M. Compton
Pace Analytical Pittsburgh
1638 Roseytown Road
Suites 2,3,4
Greensburg, PA 15601
Phone (724)850-5600

Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122
Phone (615) 758-5858

Uranium KPA

454717

Preserved Containers

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	HNO3															LAB USE ONLY
1	2210315-001L/R6 North-20221005	PS	10/5/2022 12:15	30528336001	Water	1					X										
2	2210315-002L/ R6 South-2022100	PS	10/6/2022 09:05	30528336002	Water	1					X										
3																					
4																					
5																					

Comments

Transfers	Released By	Date/Time	Received By	Date/Time
1	Jacob Howe	10/14/2022	O. Compton	10/15/2022
2				
3				

Cooler Temperature on Receipt °C Custody Seal or N Received on Ice or N Samples Intact or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.

Sample Receipt Checklist

COC Seal Present/Intact: Y N If Applicable

COC Signed/Accurate: Y N VOA Zero Headspace: Y N

Bottles arrive intact: Y N Pres. Correct/Check: Y N

Correct bottles used: Y N

Sufficient volume sent: Y N

RAD Screen <0.5 mR/hr: Y N

OFA 7 14.1 ± 0 = 14.1



CHAIN OF CUSTODY RECORD

PAGE: 1 OF: 1

Hall Environmental Analysis Laboratory
 4901 Hawkins NE
 Albuquerque, NM 87109
 TEL: 505-345-3975
 FAX: 505-345-4107
 Website: www.hallenvironmental.com

454777

SUB CONTRACTOR: Pace-Greensburg		COMPANY: Pace Analytical Services, Inc.		PHONE: (724) 850-5600	FAX: (724) 850-5601		
ADDRESS: 1638 Roseytown Rd Ste 2,3,4				ACCOUNT #:	EMAIL:		
CITY, STATE, ZIP: Greensburg, PA 15601							
ITEM	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE	# CONTAINERS	ANALYTICAL COMMENTS
1	2210315-001L	R6 North-20221005	1LHDPEHNO	Aqueous	10/5/2022 12:15:00 PM	2	Adjusted Gross Alpha
2	2210315-002L	R6 South-20221006	1LHDPEHNO	Aqueous	10/6/2022 9:05:00 AM	2	Adjusted Gross Alpha

WO#: 30528336



SPECIAL INSTRUCTIONS / COMMENTS:

Please include the LAB ID and the CLIENT SAMPLE ID on all final reports. Please e-mail results to lab@hallenvironmental.com. Please return all coolers and blue ice. Thank you.

Relinquished By: <i>SL</i>	Date: 10/6/2022	Time: 11:46 AM	Received By: <i>Ralph Noth</i>	Date: 10/7/22	Time: 9:25	REPORT TRANSMITTAL DESIRED: <input type="checkbox"/> HARD COPY (extra cost) <input type="checkbox"/> FAX <input type="checkbox"/> EMAIL <input type="checkbox"/> ONLINE FOR LAB USE ONLY Temp of samples _____ °C Attempt to Cool ? _____ Comments: _____
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	
TAT: Standard <input checked="" type="checkbox"/> RUSH Next BD <input type="checkbox"/> 2nd BD <input type="checkbox"/> 3rd BD <input type="checkbox"/>						

November 23, 2022

Mr. Andy Freeman
Hall Environmental
4901 Hawkins NE
Suite D
Albuquerque, New Mexico 87109

Re: Routine Analysis
Work Order: 20534
SDG: 2210315

Dear Mr. Freeman:

Cape Fear Analytical LLC (CFA) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on October 07, 2022. This original data report has been prepared and reviewed in accordance with CFA's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at 910-795-0421.

Sincerely,



Cynde Larkins
Project Manager

Purchase Order: IDIQ Pricing
Enclosures



CHAIN OF CUSTODY RECORD PAGE: 1 OF: 1

Hall Environmental Analysis Laboratory
 4901 Hawkins NE
 Albuquerque, NM 87109
 TEL: 505-345-3975
 FAX: 505-345-4107
 Website: www.hallenvironmental.com

CFA WO#20534

SUB CONTRACTOR: Cape Fear Analytical		COMPANY: Cape Fear Analytical		PHONE: (910) 795-0421	FAX:		
ADDRESS: 3306 Kitty Hawk Rd Ste 120				ACCOUNT #:	EMAIL:		
CITY, STATE, ZIP: Wilmington, NC 28405							
ITEM	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE	# CONTAINERS	ANALYTICAL COMMENTS
1	2210315-001J	R6 North-20221005	1LAMGU	Aqueous	10/5/2022 12:15:00 PM	1	PCBs by 1668
2	2210315-002J	R6 South-20221006	1LAMGU	Aqueous	10/6/2022 9:05:00 AM	1	PCBs by 1668

SPECIAL INSTRUCTIONS / COMMENTS:

Please include the LAB ID and the CLIENT SAMPLE ID on all final reports. Please e-mail results to lab@hallenvironmental.com. Please return all coolers and blue ice. Thank you.

Relinquished By: <i>isa</i>	Date: 10/6/2022	Time: 11:42 AM	Received By: <i>Cynde Jenkins</i>	Date: 07 OCT 22	Time: 0947	REPORT TRANSMITTAL DESIRED: <input type="checkbox"/> HARD COPY (extra cost) <input type="checkbox"/> FAX <input type="checkbox"/> EMAIL <input type="checkbox"/> ONLINE FOR LAB USE ONLY Temp of samples <u>5.2</u> °C Attempt to Cool? <input checked="" type="checkbox"/> Comments: _____
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	
TAT: Standard <input checked="" type="checkbox"/> RUSH Next BD <input type="checkbox"/> 2nd BD <input type="checkbox"/> 3rd BD <input type="checkbox"/>						

SAMPLE RECEIPT CHECKLIST

Cape Fear Analytical

Client: <u>HALL</u>	Work Order: <u>20534</u>
---------------------	--------------------------

Shipping Company: <u>FedEx</u>	Date/Time Received: <u>07OCT22 0947</u>
--------------------------------	---

Suspected Hazard Information	Yes	NA	No
Shipped as DOT Hazardous?			<input checked="" type="checkbox"/>
Samples identified as Foreign Soil?			<input checked="" type="checkbox"/>

DOE Site Sample Packages	Yes	NA	No*
Screened <0.5 mR/hr?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Samples < 2x background?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

* Notify RSO of any responses in this column immediately.

Air Sample Receipt Specifics	Yes	NA	No
Air sample in shipment?			<input checked="" type="checkbox"/>

Air Witness: _____

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other(describe)
2 Custody seal/s present on cooler?	<input checked="" type="checkbox"/>			Seal intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3 Chain of Custody documents included with shipment?	<input checked="" type="checkbox"/>			
4 Samples requiring cold preservation within 0-6°C?	<input checked="" type="checkbox"/>			Preservation Method: <input checked="" type="checkbox"/> ice bags <input type="checkbox"/> loose ice <input checked="" type="checkbox"/> blue ice <input type="checkbox"/> dry ice <input type="checkbox"/> none <input type="checkbox"/> other (describe) Temperature Blank present: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> <u>5.3° - 0.1 = 5.2°C</u>
5 Aqueous samples found to have visible solids?	<input checked="" type="checkbox"/>			Sample IDs, containers affected: <u>Minimal Solids (<1%), cloudy</u>
5 Samples requiring chemical preservation at proper pH?		<input checked="" type="checkbox"/>		Sample IDs, containers affected and pH observed: <u>pH=7 on both</u> If preservative added, Lot#:
7 Samples requiring preservation have no residual chlorine?	<input checked="" type="checkbox"/>			Sample IDs, containers affected: If preservative added, Lot#:
8 Samples received within holding time?	<input checked="" type="checkbox"/>			Sample IDs, tests affected:
9 Sample IDs on COC match IDs on containers?	<input checked="" type="checkbox"/>			Sample IDs, containers affected:
10 Date & time of COC match date & time on containers?	<input checked="" type="checkbox"/>			Sample IDs, containers affected:
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			List type and number of containers / Sample IDs, containers affected: <u>2 - 1L WMA 6 bottles, 1 per sample</u>
12 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			

Comments:

PCB Congeners Analysis

Case Narrative

**PCBC Case Narrative
Hall Environmental Analysis Laboratory (HALL)
SDG 2210315
Work Order 20534**

Method/Analysis Information

Product: PCB Congeners by EPA Method 1668A in Liquids
Analytical Method: EPA Method 1668A
Extraction Method: SW846 3520C
Analytical Batch Number: 51323
Clean Up Batch Number: 51322
Extraction Batch Number: 51321

Sample Analysis

Samples were received within temperature requirements at 5.2°C (20534001, 20534002). The following samples were analyzed using the analytical protocol as established in EPA Method 1668A:

Sample ID	Client ID
12033076	Method Blank (MB)
12033077	Laboratory Control Sample (LCS)
12033078	Laboratory Control Sample Duplicate (LCSD)
20534001	2210315-001J R6 North-20221005
20534002	2210315-002J R6 South-20221006

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by Cape Fear Analytical LLC (CFA) as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with CF-OA-E-003 REV# 10.

Raw data reports are processed and reviewed by the analyst using the TargetLynx software package.

Calibration Information

Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

Continuing Calibration Verification (CCV) Requirements

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Certification Statement

The test results presented in this document are certified to meet all requirements of the 2009 TNI Standard.

Method Blank (MB) Statement

The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries

All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery

The LCSD spike recoveries met the acceptance limits.

LCS/LCSD Relative Percent Difference (RPD) Statement

The RPD(s) between the LCS and LCSD met the acceptance limits.

QC Sample Designation

A matrix spike and matrix spike duplicate analysis was not required for this SDG.

Technical Information

Holding Time Specifications

CFA assigns holding times based on the associated methodology, which assigns the date and time from sample collection. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis

Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Manual Integrations

Manual integrations were required for data files in this SDG. Certain standards and QC samples required manual integrations to correctly position the baseline as set in the calibration standard

injections. Where manual integrations were performed, copies of all manual integration peak profiles are included in the raw data section of this fraction.

System Configuration

This analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
HRP875_1	PCB Analysis	PCB Analysis	SPB-Octyl	30m x 0.25mm, 0.25um

Sample Data Summary

Cape Fear Analytical, LLC

3306 Kitty Hawk Road Suite 120, Wilmington, NC 28405 - (910) 795-0421 - www.capefearanalytical.com

Certificate of Analysis Report for

HALL001 Hall Environmental Analysis Laboratory

Client SDG: 2210315 CFA Work Order: 20534

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- B The target analyte was detected in the associated blank.
- C Congener has coeluters. When Cxxx, refer to congener number xxx for data
- J Value is estimated
- U Analyte was analyzed for, but not detected above the specified detection limit.

Review/Validation

Cape Fear Analytical requires all analytical data to be verified by a qualified data reviewer.

The following data validator verified the information presented in this case narrative:

Signature:



Name: Alexis Finks

Date: 23 NOV 2022

Title: Data Validator

**PCB Congeners
Certificate of Analysis
Sample Summary**

SDG Number: 2210315
Lab Sample ID: 20534001
Client Sample: 1668A Water
Client ID: 2210315-001J R6 North-20221005
Batch ID: 51323
Run Date: 11/11/2022 21:11
Data File: d08nov22a_7-9
Prep Batch: 51321
Prep Date: 02-NOV-22

Client: HALL001
Date Collected: 10/05/2022 12:15
Date Received: 10/07/2022 09:47
Method: EPA Method 1668A
Analyst: MLL
Prep Method: SW846 3520C
Prep Aliquot: 876.4 mL

Project: HALL00113
Matrix: WATER
Prep Basis: As Received
Instrument: HRP875
Dilution: 1
Prep SOP Ref: CF-OA-E-001

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
2051-60-7	1-MoCB	U	ND	pg/L	6.00	114
2051-61-8	2-MoCB	U	ND	pg/L	7.44	114
2051-62-9	3-MoCB	U	ND	pg/L	4.95	114
13029-08-8	4-DiCB	U	ND	pg/L	14.3	114
16605-91-7	5-DiCB	U	ND	pg/L	11.3	114
25569-80-6	6-DiCB	U	ND	pg/L	8.42	114
33284-50-3	7-DiCB	U	ND	pg/L	8.40	114
34883-43-7	8-DiCB	U	ND	pg/L	7.33	114
34883-39-1	9-DiCB	U	ND	pg/L	10.8	114
33146-45-1	10-DiCB	U	ND	pg/L	7.01	114
2050-67-1	11-DiCB	J	33.7	pg/L	9.79	114
2974-92-7	12-DiCB	CU	ND	pg/L	9.11	228
2974-90-5	13-DiCB	C12				
34883-41-5	14-DiCB	U	ND	pg/L	9.15	114
2050-68-2	15-DiCB	U	ND	pg/L	12.1	114
38444-78-9	16-TrCB	U	ND	pg/L	3.99	114
37680-66-3	17-TrCB	U	ND	pg/L	4.79	114
37680-65-2	18-TrCB	CJ	6.39	pg/L	4.13	228
38444-73-4	19-TrCB	U	ND	pg/L	5.75	114
38444-84-7	20-TrCB	BCJ	11.3	pg/L	3.58	228
55702-46-0	21-TrCB	CU	ND	pg/L	3.13	228
38444-85-8	22-TrCB	J	4.47	pg/L	3.54	114
55720-44-0	23-TrCB	U	ND	pg/L	3.31	114
55702-45-9	24-TrCB	U	ND	pg/L	4.40	114
55712-37-3	25-TrCB	U	ND	pg/L	2.97	114
38444-81-4	26-TrCB	CU	ND	pg/L	3.45	228
38444-76-7	27-TrCB	U	ND	pg/L	3.72	114
7012-37-5	28-TrCB	C20				
15862-07-4	29-TrCB	C26				
35693-92-6	30-TrCB	C18				
16606-02-3	31-TrCB	U	ND	pg/L	6.60	114
38444-77-8	32-TrCB	U	ND	pg/L	3.29	114

Comments:

- B** The target analyte was detected in the associated blank.
- C** Congener has coeluters. When Cxxx, refer to congener number xxx for data
- J** Value is estimated
- U** Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 2 of 8

SDG Number: 2210315	Client: HALL001	Project: HALL00113
Lab Sample ID: 20534001	Date Collected: 10/05/2022 12:15	Matrix: WATER
Client Sample: 1668A Water	Date Received: 10/07/2022 09:47	
Client ID: 2210315-001J R6 North-20221005		Prep Basis: As Received
Batch ID: 51323	Method: EPA Method 1668A	
Run Date: 11/11/2022 21:11	Analyst: MLL	Instrument: HRP875
Data File: d08nov22a_7-9		Dilution: 1
Prep Batch: 51321	Prep Method: SW846 3520C	Prep SOP Ref: CF-OA-E-001
Prep Date: 02-NOV-22	Prep Aliquot: 876.4 mL	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
38444-86-9	33-TrCB	C21				
37680-68-5	34-TrCB	U	ND	pg/L	3.86	114
37680-69-6	35-TrCB	U	ND	pg/L	4.70	114
38444-87-0	36-TrCB	U	ND	pg/L	4.11	114
38444-90-5	37-TrCB	U	ND	pg/L	4.11	114
53555-66-1	38-TrCB	U	ND	pg/L	4.61	114
38444-88-1	39-TrCB	U	ND	pg/L	4.70	114
38444-93-8	40-TeCB	CU	ND	pg/L	5.59	228
52663-59-9	41-TeCB	U	ND	pg/L	9.04	114
36559-22-5	42-TeCB	U	ND	pg/L	5.80	114
70362-46-8	43-TeCB	U	ND	pg/L	7.17	114
41464-39-5	44-TeCB	CU	ND	pg/L	8.26	342
70362-45-7	45-TeCB	CJ	4.22	pg/L	2.65	228
41464-47-5	46-TeCB	U	ND	pg/L	2.58	114
2437-79-8	47-TeCB	C44				
70362-47-9	48-TeCB	U	ND	pg/L	6.16	114
41464-40-8	49-TeCB	CU	ND	pg/L	5.00	228
62796-65-0	50-TeCB	CU	ND	pg/L	2.51	228
68194-04-7	51-TeCB	C45				
35693-99-3	52-TeCB	BJ	8.44	pg/L	6.69	228
41464-41-9	53-TeCB	C50				
15968-05-5	54-TeCB	U	ND	pg/L	1.89	114
74338-24-2	55-TeCB	U	ND	pg/L	3.77	114
41464-43-1	56-TeCB	U	ND	pg/L	3.97	114
70424-67-8	57-TeCB	U	ND	pg/L	3.61	114
41464-49-7	58-TeCB	U	ND	pg/L	3.70	114
74472-33-6	59-TeCB	CU	ND	pg/L	4.61	342
33025-41-1	60-TeCB	U	ND	pg/L	3.81	114
33284-53-6	61-TeCB	CU	ND	pg/L	11.1	456
54230-22-7	62-TeCB	C59				
74472-34-7	63-TeCB	U	ND	pg/L	3.70	114
52663-58-8	64-TeCB	U	ND	pg/L	4.47	114

Comments:

- B** The target analyte was detected in the associated blank.
- C** Congener has coeluters. When Cxxx, refer to congener number xxx for data
- J** Value is estimated
- U** Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 3 of 8

SDG Number: 2210315	Client: HALL001	Project: HALL00113
Lab Sample ID: 20534001	Date Collected: 10/05/2022 12:15	Matrix: WATER
Client Sample: 1668A Water	Date Received: 10/07/2022 09:47	
Client ID: 2210315-001J R6 North-20221005		Prep Basis: As Received
Batch ID: 51323	Method: EPA Method 1668A	
Run Date: 11/11/2022 21:11	Analyst: MLL	Instrument: HRP875
Data File: d08nov22a_7-9		Dilution: 1
Prep Batch: 51321	Prep Method: SW846 3520C	Prep SOP Ref: CF-OA-E-001
Prep Date: 02-NOV-22	Prep Aliquot: 876.4 mL	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
33284-54-7	65-TeCB	C44				
32598-10-0	66-TeCB	J	4.52	pg/L	3.95	114
73575-53-8	67-TeCB	U	ND	pg/L	3.08	114
73575-52-7	68-TeCB	U	ND	pg/L	3.35	114
60233-24-1	69-TeCB	C49				
32598-11-1	70-TeCB	C61				
41464-46-4	71-TeCB	C40				
41464-42-0	72-TeCB	U	ND	pg/L	3.63	114
74338-23-1	73-TeCB	U	ND	pg/L	4.27	114
32690-93-0	74-TeCB	C61				
32598-12-2	75-TeCB	C59				
70362-48-0	76-TeCB	C61				
32598-13-3	77-TeCB	U	ND	pg/L	3.72	114
70362-49-1	78-TeCB	U	ND	pg/L	4.56	114
41464-48-6	79-TeCB	U	ND	pg/L	3.51	114
33284-52-5	80-TeCB	U	ND	pg/L	3.31	114
70362-50-4	81-TeCB	U	ND	pg/L	3.47	114
52663-62-4	82-PeCB	U	ND	pg/L	5.04	114
60145-20-2	83-PeCB	U	ND	pg/L	5.77	114
52663-60-2	84-PeCB	U	ND	pg/L	4.27	114
65510-45-4	85-PeCB	CU	ND	pg/L	3.56	342
55312-69-1	86-PeCB	BCJ	7.80	pg/L	3.61	685
38380-02-8	87-PeCB	C86				
55215-17-3	88-PeCB	CU	ND	pg/L	4.31	228
73575-57-2	89-PeCB	U	ND	pg/L	4.95	114
68194-07-0	90-PeCB	CU	ND	pg/L	7.17	342
68194-05-8	91-PeCB	C88				
52663-61-3	92-PeCB	U	ND	pg/L	4.75	114
73575-56-1	93-PeCB	CU	ND	pg/L	3.95	228
73575-55-0	94-PeCB	U	ND	pg/L	4.02	114
38379-99-6	95-PeCB	U	ND	pg/L	4.47	114
73575-54-9	96-PeCB	U	ND	pg/L	2.53	114

Comments:

- B** The target analyte was detected in the associated blank.
- C** Congener has coeluters. When Cxxx, refer to congener number xxx for data
- J** Value is estimated
- U** Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 4 of 8

SDG Number: 2210315	Client: HALL001	Project: HALL00113
Lab Sample ID: 20534001	Date Collected: 10/05/2022 12:15	Matrix: WATER
Client Sample: 1668A Water	Date Received: 10/07/2022 09:47	
Client ID: 2210315-001J R6 North-20221005		Prep Basis: As Received
Batch ID: 51323	Method: EPA Method 1668A	
Run Date: 11/11/2022 21:11	Analyst: MLL	Instrument: HRP875
Data File: d08nov22a_7-9		Dilution: 1
Prep Batch: 51321	Prep Method: SW846 3520C	Prep SOP Ref: CF-OA-E-001
Prep Date: 02-NOV-22	Prep Aliquot: 876.4 mL	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
41464-51-1	97-PeCB	C86				
60233-25-2	98-PeCB	CU	ND	pg/L	3.86	228
38380-01-7	99-PeCB	U	ND	pg/L	3.81	114
39485-83-1	100-PeCB	C93				
37680-73-2	101-PeCB	C90				
68194-06-9	102-PeCB	C98				
60145-21-3	103-PeCB	U	ND	pg/L	4.06	114
56558-16-8	104-PeCB	U	ND	pg/L	2.01	114
32598-14-4	105-PeCB	U	ND	pg/L	4.08	114
70424-69-0	106-PeCB	U	ND	pg/L	4.13	114
70424-68-9	107-PeCB	U	ND	pg/L	3.42	114
70362-41-3	108-PeCB	CU	ND	pg/L	4.20	228
74472-35-8	109-PeCB	C86				
38380-03-9	110-PeCB	CJ	6.91	pg/L	3.31	228
39635-32-0	111-PeCB	U	ND	pg/L	3.15	114
74472-36-9	112-PeCB	U	ND	pg/L	2.85	114
68194-10-5	113-PeCB	C90				
74472-37-0	114-PeCB	U	ND	pg/L	3.72	114
74472-38-1	115-PeCB	C110				
18259-05-7	116-PeCB	C85				
68194-11-6	117-PeCB	C85				
31508-00-6	118-PeCB	U	ND	pg/L	5.41	114
56558-17-9	119-PeCB	C86				
68194-12-7	120-PeCB	U	ND	pg/L	3.33	114
56558-18-0	121-PeCB	U	ND	pg/L	2.99	114
76842-07-4	122-PeCB	U	ND	pg/L	5.39	114
65510-44-3	123-PeCB	U	ND	pg/L	3.42	114
70424-70-3	124-PeCB	C108				
74472-39-2	125-PeCB	C86				
57465-28-8	126-PeCB	U	ND	pg/L	4.52	114
39635-33-1	127-PeCB	U	ND	pg/L	4.47	114
38380-07-3	128-HxCB	CU	ND	pg/L	3.93	228

Comments:

- B** The target analyte was detected in the associated blank.
- C** Congener has coeluters. When Cxxx, refer to congener number xxx for data
- J** Value is estimated
- U** Analyte was analyzed for, but not detected above the specified detection limit.

PCB Congeners
Certificate of Analysis
Sample Summary

Page 5 of 8

SDG Number: 2210315
Lab Sample ID: 20534001
Client Sample: 1668A Water
Client ID: 2210315-001J R6 North-20221005
Batch ID: 51323
Run Date: 11/11/2022 21:11
Data File: d08nov22a_7-9
Prep Batch: 51321
Prep Date: 02-NOV-22

Client: HALL001
Date Collected: 10/05/2022 12:15
Date Received: 10/07/2022 09:47
Method: EPA Method 1668A
Analyst: MLL
Prep Method: SW846 3520C
Prep Aliquot: 876.4 mL

Project: HALL00113
Matrix: WATER
Prep Basis: As Received
Instrument: HRP875
Dilution: 1
Prep SOP Ref: CF-OA-E-001

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
55215-18-4	129-HxCB	CJ	9.97	pg/L	4.27	342
52663-66-8	130-HxCB	U	ND	pg/L	4.95	114
61798-70-7	131-HxCB	U	ND	pg/L	4.88	114
38380-05-1	132-HxCB	U	ND	pg/L	4.59	114
35694-04-3	133-HxCB	U	ND	pg/L	4.70	114
52704-70-8	134-HxCB	U	ND	pg/L	5.16	114
52744-13-5	135-HxCB	CJ	5.18	pg/L	3.42	228
38411-22-2	136-HxCB	U	ND	pg/L	2.49	114
35694-06-5	137-HxCB	U	ND	pg/L	4.77	114
35065-28-2	138-HxCB	C129				
56030-56-9	139-HxCB	CU	ND	pg/L	3.99	228
59291-64-4	140-HxCB	C139				
52712-04-6	141-HxCB	U	ND	pg/L	4.04	114
41411-61-4	142-HxCB	U	ND	pg/L	4.86	114
68194-15-0	143-HxCB	U	ND	pg/L	4.56	114
68194-14-9	144-HxCB	U	ND	pg/L	3.38	114
74472-40-5	145-HxCB	U	ND	pg/L	2.35	114
51908-16-8	146-HxCB	U	ND	pg/L	3.90	114
68194-13-8	147-HxCB	CJ	5.73	pg/L	3.88	228
74472-41-6	148-HxCB	U	ND	pg/L	3.26	114
38380-04-0	149-HxCB	C147				
68194-08-1	150-HxCB	U	ND	pg/L	2.19	114
52663-63-5	151-HxCB	C135				
68194-09-2	152-HxCB	U	ND	pg/L	2.44	114
35065-27-1	153-HxCB	BCJ	6.71	pg/L	3.56	228
60145-22-4	154-HxCB	U	ND	pg/L	2.65	114
33979-03-2	155-HxCB	U	ND	pg/L	1.87	114
38380-08-4	156-HxCB	CU	ND	pg/L	3.40	228
69782-90-7	157-HxCB	C156				
74472-42-7	158-HxCB	U	ND	pg/L	2.97	114
39635-35-3	159-HxCB	U	ND	pg/L	2.81	114
41411-62-5	160-HxCB	U	ND	pg/L	3.63	114

Comments:

- B** The target analyte was detected in the associated blank.
C Congener has coeluters. When Cxxx, refer to congener number xxx for data
J Value is estimated
U Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 6 of 8

SDG Number: 2210315
 Lab Sample ID: 20534001
 Client Sample: 1668A Water
 Client ID: 2210315-001J R6 North-20221005
 Batch ID: 51323
 Run Date: 11/11/2022 21:11
 Data File: d08nov22a_7-9
 Prep Batch: 51321
 Prep Date: 02-NOV-22

Client: HALL001
 Date Collected: 10/05/2022 12:15
 Date Received: 10/07/2022 09:47
 Method: EPA Method 1668A
 Analyst: MLL
 Prep Method: SW846 3520C
 Prep Aliquot: 876.4 mL

Project: HALL00113
 Matrix: WATER
 Prep Basis: As Received
 Instrument: HRP875
 Dilution: 1
 Prep SOP Ref: CF-OA-E-001

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
74472-43-8	161-HxCB	U	ND	pg/L	3.26	114
39635-34-2	162-HxCB	U	ND	pg/L	2.78	114
74472-44-9	163-HxCB	C129				
74472-45-0	164-HxCB	U	ND	pg/L	3.10	114
74472-46-1	165-HxCB	U	ND	pg/L	3.63	114
41411-63-6	166-HxCB	C128				
52663-72-6	167-HxCB	U	ND	pg/L	2.42	114
59291-65-5	168-HxCB	C153				
32774-16-6	169-HxCB	U	ND	pg/L	3.01	114
35065-30-6	170-HpCB	U	ND	pg/L	3.67	114
52663-71-5	171-HpCB	CU	ND	pg/L	3.56	228
52663-74-8	172-HpCB	U	ND	pg/L	3.65	114
68194-16-1	173-HpCB	C171				
38411-25-5	174-HpCB	U	ND	pg/L	3.95	114
40186-70-7	175-HpCB	U	ND	pg/L	3.19	114
52663-65-7	176-HpCB	U	ND	pg/L	2.46	114
52663-70-4	177-HpCB	U	ND	pg/L	3.61	114
52663-67-9	178-HpCB	U	ND	pg/L	3.51	114
52663-64-6	179-HpCB	U	ND	pg/L	2.37	114
35065-29-3	180-HpCB	CU	ND	pg/L	5.77	228
74472-47-2	181-HpCB	U	ND	pg/L	3.45	114
60145-23-5	182-HpCB	U	ND	pg/L	3.08	114
52663-69-1	183-HpCB	CJ	3.54	pg/L	3.26	228
74472-48-3	184-HpCB	U	ND	pg/L	2.33	114
52712-05-7	185-HpCB	C183				
74472-49-4	186-HpCB	U	ND	pg/L	2.49	114
52663-68-0	187-HpCB	J	3.13	pg/L	3.08	114
74487-85-7	188-HpCB	U	ND	pg/L	2.19	114
39635-31-9	189-HpCB	U	ND	pg/L	2.56	114
41411-64-7	190-HpCB	U	ND	pg/L	2.85	114
74472-50-7	191-HpCB	U	ND	pg/L	2.65	114
74472-51-8	192-HpCB	U	ND	pg/L	2.94	114

Comments:

- B** The target analyte was detected in the associated blank.
C Congener has coeluters. When Cxxx, refer to congener number xxx for data
J Value is estimated
U Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 7 of 8

SDG Number: 2210315	Client: HALL001	Project: HALL00113
Lab Sample ID: 20534001	Date Collected: 10/05/2022 12:15	Matrix: WATER
Client Sample: 1668A Water	Date Received: 10/07/2022 09:47	
Client ID: 2210315-001J R6 North-20221005		Prep Basis: As Received
Batch ID: 51323	Method: EPA Method 1668A	
Run Date: 11/11/2022 21:11	Analyst: MLL	Instrument: HRP875
Data File: d08nov22a_7-9		Dilution: 1
Prep Batch: 51321	Prep Method: SW846 3520C	Prep SOP Ref: CF-OA-E-001
Prep Date: 02-NOV-22	Prep Aliquot: 876.4 mL	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
69782-91-8	193-HpCB	C180				
35694-08-7	194-OcCB	U	ND	pg/L	4.06	114
52663-78-2	195-OcCB	U	ND	pg/L	2.74	114
42740-50-1	196-OcCB	U	ND	pg/L	3.04	114
33091-17-7	197-OcCB	CJ	3.10	pg/L	2.33	228
68194-17-2	198-OcCB	CJ	4.91	pg/L	3.26	228
52663-75-9	199-OcCB	C198				
52663-73-7	200-OcCB	C197				
40186-71-8	201-OcCB	U	ND	pg/L	2.17	114
2136-99-4	202-OcCB	U	ND	pg/L	2.35	114
52663-76-0	203-OcCB	U	ND	pg/L	3.10	114
74472-52-9	204-OcCB	U	ND	pg/L	2.24	114
74472-53-0	205-OcCB	U	ND	pg/L	1.94	114
40186-72-9	206-NoCB	U	ND	pg/L	4.06	114
52663-79-3	207-NoCB	U	ND	pg/L	2.81	114
52663-77-1	208-NoCB	U	ND	pg/L	2.42	114
2051-24-3	209-DeCB	U	ND	pg/L	3.01	114
1336-36-3	Total PCB Congeners	J	130	pg/L		114

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1-MoCB		896	2280	pg/L	39.3	(15%-150%)
13C-3-MoCB		1040	2280	pg/L	45.7	(15%-150%)
13C-4-DiCB		1100	2280	pg/L	48.0	(25%-150%)
13C-15-DiCB		1650	2280	pg/L	72.2	(25%-150%)
13C-19-TrCB		1390	2280	pg/L	61.0	(25%-150%)
13C-37-TrCB		1450	2280	pg/L	63.6	(25%-150%)
13C-54-TeCB		1430	2280	pg/L	62.6	(25%-150%)
13C-77-TeCB		1840	2280	pg/L	80.8	(25%-150%)
13C-81-TeCB		1900	2280	pg/L	83.2	(25%-150%)
13C-104-PeCB		1320	2280	pg/L	57.7	(25%-150%)
13C-105-PeCB		1480	2280	pg/L	64.7	(25%-150%)
13C-114-PeCB		1470	2280	pg/L	64.4	(25%-150%)
13C-118-PeCB		1370	2280	pg/L	60.1	(25%-150%)
13C-123-PeCB		1590	2280	pg/L	69.5	(25%-150%)
13C-126-PeCB		1530	2280	pg/L	66.9	(25%-150%)
13C-155-HxCB		1480	2280	pg/L	64.7	(25%-150%)
13C-156-HxCB	C	2990	4560	pg/L	65.5	(25%-150%)
13C-157-HxCB	C156L					
13C-167-HxCB		1470	2280	pg/L	64.6	(25%-150%)
13C-169-HxCB		1480	2280	pg/L	64.7	(25%-150%)
13C-188-HpCB		1490	2280	pg/L	65.2	(25%-150%)
13C-189-HpCB		1480	2280	pg/L	64.9	(25%-150%)

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 8 of 8

SDG Number: 2210315	Client: HALL001	Project: HALL00113
Lab Sample ID: 20534001	Date Collected: 10/05/2022 12:15	Matrix: WATER
Client Sample: 1668A Water	Date Received: 10/07/2022 09:47	
Client ID: 2210315-001J R6 North-20221005		Prep Basis: As Received
Batch ID: 51323	Method: EPA Method 1668A	
Run Date: 11/11/2022 21:11	Analyst: MLL	Instrument: HRP875
Data File: d08nov22a_7-9		Dilution: 1
Prep Batch: 51321	Prep Method: SW846 3520C	Prep SOP Ref: CF-OA-E-001
Prep Date: 02-NOV-22	Prep Aliquot: 876.4 mL	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
Surrogate/Tracer recovery						
		Qual	Result	Nominal	Units	Recovery%
						Acceptable Limits
13C-202-OcCB			1460	2280	pg/L	64.0 (25%-150%)
13C-205-OcCB			1780	2280	pg/L	78.1 (25%-150%)
13C-206-NoCB			1730	2280	pg/L	76.0 (25%-150%)
13C-208-NoCB			1670	2280	pg/L	73.1 (25%-150%)
13C-209-DeCB			1650	2280	pg/L	72.4 (25%-150%)
13C-28-TrCB			1610	2280	pg/L	70.7 (30%-135%)
13C-111-PeCB			1790	2280	pg/L	78.5 (30%-135%)
13C-178-HpCB			2090	2280	pg/L	91.6 (30%-135%)

Comments:

- B** The target analyte was detected in the associated blank.
- C** Congener has coeluters. When Cxxx, refer to congener number xxx for data
- J** Value is estimated
- U** Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 1 of 8

SDG Number: 2210315	Client: HALL001	Project: HALL00113
Lab Sample ID: 20534002	Date Collected: 10/06/2022 09:05	Matrix: WATER
Client Sample: 1668A Water	Date Received: 10/07/2022 09:47	
Client ID: 2210315-002J R6 South -20221006		Prep Basis: As Received
Batch ID: 51323	Method: EPA Method 1668A	
Run Date: 11/11/2022 22:21	Analyst: MLL	Instrument: HRP875
Data File: d08nov22a_7-10		Dilution: 1
Prep Batch: 51321	Prep Method: SW846 3520C	Prep SOP Ref: CF-OA-E-001
Prep Date: 02-NOV-22	Prep Aliquot: 952.9 mL	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
2051-60-7	1-MoCB	U	ND	pg/L	6.23	105
2051-61-8	2-MoCB	U	ND	pg/L	7.85	105
2051-62-9	3-MoCB	U	ND	pg/L	5.33	105
13029-08-8	4-DiCB	U	ND	pg/L	12.7	105
16605-91-7	5-DiCB	U	ND	pg/L	11.7	105
25569-80-6	6-DiCB	U	ND	pg/L	8.73	105
33284-50-3	7-DiCB	U	ND	pg/L	8.69	105
34883-43-7	8-DiCB	U	ND	pg/L	7.60	105
34883-39-1	9-DiCB	U	ND	pg/L	11.2	105
33146-45-1	10-DiCB	U	ND	pg/L	6.40	105
2050-67-1	11-DiCB	J	86.7	pg/L	10.1	105
2974-92-7	12-DiCB	CU	ND	pg/L	9.42	210
2974-90-5	13-DiCB	C12				
34883-41-5	14-DiCB	U	ND	pg/L	9.49	105
2050-68-2	15-DiCB	U	ND	pg/L	15.0	105
38444-78-9	16-TrCB	U	ND	pg/L	4.32	105
37680-66-3	17-TrCB	U	ND	pg/L	5.18	105
37680-65-2	18-TrCB	CU	ND	pg/L	7.68	210
38444-73-4	19-TrCB	U	ND	pg/L	6.02	105
38444-84-7	20-TrCB	BCJ	16.7	pg/L	3.88	210
55702-46-0	21-TrCB	CU	ND	pg/L	6.86	210
38444-85-8	22-TrCB	U	ND	pg/L	6.59	105
55720-44-0	23-TrCB	U	ND	pg/L	3.59	105
55702-45-9	24-TrCB	U	ND	pg/L	4.76	105
55712-37-3	25-TrCB	U	ND	pg/L	3.21	105
38444-81-4	26-TrCB	CU	ND	pg/L	3.71	210
38444-76-7	27-TrCB	U	ND	pg/L	4.03	105
7012-37-5	28-TrCB	C20				
15862-07-4	29-TrCB	C26				
35693-92-6	30-TrCB	C18				
16606-02-3	31-TrCB	U	ND	pg/L	11.3	105
38444-77-8	32-TrCB	U	ND	pg/L	3.76	105

Comments:

- B** The target analyte was detected in the associated blank.
- C** Congener has coeluters. When Cxxx, refer to congener number xxx for data
- J** Value is estimated
- U** Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 2 of 8

SDG Number: 2210315	Client: HALL001	Project: HALL00113
Lab Sample ID: 20534002	Date Collected: 10/06/2022 09:05	Matrix: WATER
Client Sample: 1668A Water	Date Received: 10/07/2022 09:47	
Client ID: 2210315-002J R6 South -20221006		Prep Basis: As Received
Batch ID: 51323	Method: EPA Method 1668A	
Run Date: 11/11/2022 22:21	Analyst: MLL	Instrument: HRP875
Data File: d08nov22a_7-10		Dilution: 1
Prep Batch: 51321	Prep Method: SW846 3520C	Prep SOP Ref: CF-OA-E-001
Prep Date: 02-NOV-22	Prep Aliquot: 952.9 mL	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
38444-86-9	33-TrCB	C21				
37680-68-5	34-TrCB	U	ND	pg/L	4.18	105
37680-69-6	35-TrCB	U	ND	pg/L	6.57	105
38444-87-0	36-TrCB	U	ND	pg/L	5.71	105
38444-90-5	37-TrCB	J	7.98	pg/L	5.81	105
53555-66-1	38-TrCB	U	ND	pg/L	6.44	105
38444-88-1	39-TrCB	U	ND	pg/L	6.55	105
38444-93-8	40-TeCB	CU	ND	pg/L	5.79	210
52663-59-9	41-TeCB	U	ND	pg/L	9.78	105
36559-22-5	42-TeCB	U	ND	pg/L	6.28	105
70362-46-8	43-TeCB	U	ND	pg/L	7.77	105
41464-39-5	44-TeCB	CJ	18.1	pg/L	6.07	315
70362-45-7	45-TeCB	CJ	5.08	pg/L	3.25	210
41464-47-5	46-TeCB	U	ND	pg/L	3.17	105
2437-79-8	47-TeCB	C44				
70362-47-9	48-TeCB	U	ND	pg/L	6.67	105
41464-40-8	49-TeCB	CU	ND	pg/L	7.70	210
62796-65-0	50-TeCB	CU	ND	pg/L	3.30	210
68194-04-7	51-TeCB	C45				
35693-99-3	52-TeCB	BJ	25.7	pg/L	7.26	210
41464-41-9	53-TeCB	C50				
15968-05-5	54-TeCB	U	ND	pg/L	2.14	105
74338-24-2	55-TeCB	U	ND	pg/L	3.69	105
41464-43-1	56-TeCB	J	8.37	pg/L	3.92	105
70424-67-8	57-TeCB	U	ND	pg/L	3.57	105
41464-49-7	58-TeCB	U	ND	pg/L	3.65	105
74472-33-6	59-TeCB	CU	ND	pg/L	5.00	315
33025-41-1	60-TeCB	U	ND	pg/L	4.01	105
33284-53-6	61-TeCB	CU	ND	pg/L	33.6	420
54230-22-7	62-TeCB	C59				
74472-34-7	63-TeCB	U	ND	pg/L	3.63	105
52663-58-8	64-TeCB	J	8.08	pg/L	4.85	105

Comments:

- B** The target analyte was detected in the associated blank.
- C** Congener has coeluters. When Cxxx, refer to congener number xxx for data
- J** Value is estimated
- U** Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 3 of 8

SDG Number: 2210315	Client: HALL001	Project: HALL00113
Lab Sample ID: 20534002	Date Collected: 10/06/2022 09:05	Matrix: WATER
Client Sample: 1668A Water	Date Received: 10/07/2022 09:47	
Client ID: 2210315-002J R6 South-20221006		Prep Basis: As Received
Batch ID: 51323	Method: EPA Method 1668A	
Run Date: 11/11/2022 22:21	Analyst: MLL	Instrument: HRP875
Data File: d08nov22a_7-10		Dilution: 1
Prep Batch: 51321	Prep Method: SW846 3520C	Prep SOP Ref: CF-OA-E-001
Prep Date: 02-NOV-22	Prep Aliquot: 952.9 mL	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
33284-54-7	65-TeCB	C44				
32598-10-0	66-TeCB	J	12.8	pg/L	3.88	105
73575-53-8	67-TeCB	U	ND	pg/L	3.04	105
73575-52-7	68-TeCB	U	ND	pg/L	3.32	105
60233-24-1	69-TeCB	C49				
32598-11-1	70-TeCB	C61				
41464-46-4	71-TeCB	C40				
41464-42-0	72-TeCB	U	ND	pg/L	3.59	105
74338-23-1	73-TeCB	U	ND	pg/L	4.62	105
32690-93-0	74-TeCB	C61				
32598-12-2	75-TeCB	C59				
70362-48-0	76-TeCB	C61				
32598-13-3	77-TeCB	J	4.11	pg/L	3.80	105
70362-49-1	78-TeCB	U	ND	pg/L	4.49	105
41464-48-6	79-TeCB	U	ND	pg/L	3.46	105
33284-52-5	80-TeCB	U	ND	pg/L	3.27	105
70362-50-4	81-TeCB	U	ND	pg/L	3.51	105
52663-62-4	82-PeCB	U	ND	pg/L	7.64	105
60145-20-2	83-PeCB	U	ND	pg/L	8.73	105
52663-60-2	84-PeCB	J	9.00	pg/L	6.46	105
65510-45-4	85-PeCB	CJ	8.56	pg/L	5.39	315
55312-69-1	86-PeCB	BCJ	35.2	pg/L	5.48	630
38380-02-8	87-PeCB	C86				
55215-17-3	88-PeCB	CU	ND	pg/L	6.53	210
73575-57-2	89-PeCB	U	ND	pg/L	7.49	105
68194-07-0	90-PeCB	CJ	48.3	pg/L	5.56	315
68194-05-8	91-PeCB	C88				
52663-61-3	92-PeCB	J	8.54	pg/L	7.20	105
73575-56-1	93-PeCB	CU	ND	pg/L	5.98	210
73575-55-0	94-PeCB	U	ND	pg/L	6.09	105
38379-99-6	95-PeCB	J	37.5	pg/L	6.76	105
73575-54-9	96-PeCB	U	ND	pg/L	2.92	105

Comments:

- B** The target analyte was detected in the associated blank.
- C** Congener has coeluters. When Cxxx, refer to congener number xxx for data
- J** Value is estimated
- U** Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 4 of 8

SDG Number: 2210315	Client: HALL001	Project: HALL00113
Lab Sample ID: 20534002	Date Collected: 10/06/2022 09:05	Matrix: WATER
Client Sample: 1668A Water	Date Received: 10/07/2022 09:47	
Client ID: 2210315-002J R6 South-20221006		Prep Basis: As Received
Batch ID: 51323	Method: EPA Method 1668A	
Run Date: 11/11/2022 22:21	Analyst: MLL	Instrument: HRP875
Data File: d08nov22a_7-10		Dilution: 1
Prep Batch: 51321	Prep Method: SW846 3520C	Prep SOP Ref: CF-OA-E-001
Prep Date: 02-NOV-22	Prep Aliquot: 952.9 mL	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
41464-51-1	97-PeCB	C86				
60233-25-2	98-PeCB	CU	ND	pg/L	5.83	210
38380-01-7	99-PeCB	J	14.9	pg/L	5.77	105
39485-83-1	100-PeCB	C93				
37680-73-2	101-PeCB	C90				
68194-06-9	102-PeCB	C98				
60145-21-3	103-PeCB	U	ND	pg/L	6.15	105
56558-16-8	104-PeCB	U	ND	pg/L	2.27	105
32598-14-4	105-PeCB	J	16.5	pg/L	4.47	105
70424-69-0	106-PeCB	U	ND	pg/L	4.83	105
70424-68-9	107-PeCB	U	ND	pg/L	4.30	105
70362-41-3	108-PeCB	CU	ND	pg/L	4.91	210
74472-35-8	109-PeCB	C86				
38380-03-9	110-PeCB	CJ	59.8	pg/L	5.02	210
39635-32-0	111-PeCB	U	ND	pg/L	4.76	105
74472-36-9	112-PeCB	U	ND	pg/L	4.32	105
68194-10-5	113-PeCB	C90				
74472-37-0	114-PeCB	U	ND	pg/L	4.37	105
74472-38-1	115-PeCB	C110				
18259-05-7	116-PeCB	C85				
68194-11-6	117-PeCB	C85				
31508-00-6	118-PeCB	BJ	43.2	pg/L	4.64	105
56558-17-9	119-PeCB	C86				
68194-12-7	120-PeCB	U	ND	pg/L	5.06	105
56558-18-0	121-PeCB	U	ND	pg/L	4.53	105
76842-07-4	122-PeCB	U	ND	pg/L	6.28	105
65510-44-3	123-PeCB	U	ND	pg/L	4.03	105
70424-70-3	124-PeCB	C108				
74472-39-2	125-PeCB	C86				
57465-28-8	126-PeCB	U	ND	pg/L	5.10	105
39635-33-1	127-PeCB	U	ND	pg/L	5.23	105
38380-07-3	128-HxCB	CJ	14.2	pg/L	7.35	210

Comments:

- B** The target analyte was detected in the associated blank.
- C** Congener has coeluters. When Cxxx, refer to congener number xxx for data
- J** Value is estimated
- U** Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 5 of 8

SDG Number: 2210315
 Lab Sample ID: 20534002
 Client Sample: 1668A Water
 Client ID: 2210315-002J R6 South-20221006
 Batch ID: 51323
 Run Date: 11/11/2022 22:21
 Data File: d08nov22a_7-10
 Prep Batch: 51321
 Prep Date: 02-NOV-22

Client: HALL001
 Date Collected: 10/06/2022 09:05
 Date Received: 10/07/2022 09:47
 Method: EPA Method 1668A
 Analyst: MLL
 Prep Method: SW846 3520C
 Prep Aliquot: 952.9 mL

Project: HALL00113
 Matrix: WATER
 Prep Basis: As Received
 Instrument: HRP875
 Dilution: 1
 Prep SOP Ref: CF-OA-E-001

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
55215-18-4	129-HxCB	CJ	116	pg/L	8.00	315
52663-66-8	130-HxCB	U	ND	pg/L	9.23	105
61798-70-7	131-HxCB	U	ND	pg/L	9.15	105
38380-05-1	132-HxCB	J	30.4	pg/L	8.56	105
35694-04-3	133-HxCB	U	ND	pg/L	8.77	105
52704-70-8	134-HxCB	U	ND	pg/L	9.63	105
52744-13-5	135-HxCB	CJ	33.3	pg/L	4.64	210
38411-22-2	136-HxCB	J	10.7	pg/L	3.36	105
35694-06-5	137-HxCB	U	ND	pg/L	8.92	105
35065-28-2	138-HxCB	C129				
56030-56-9	139-HxCB	CU	ND	pg/L	7.49	210
59291-64-4	140-HxCB	C139				
52712-04-6	141-HxCB	J	20.9	pg/L	7.56	105
41411-61-4	142-HxCB	U	ND	pg/L	9.09	105
68194-15-0	143-HxCB	U	ND	pg/L	8.52	105
68194-14-9	144-HxCB	J	6.00	pg/L	4.55	105
74472-40-5	145-HxCB	U	ND	pg/L	3.19	105
51908-16-8	146-HxCB	U	ND	pg/L	13.1	105
68194-13-8	147-HxCB	CJ	68.6	pg/L	7.24	210
74472-41-6	148-HxCB	U	ND	pg/L	4.37	105
38380-04-0	149-HxCB	C147				
68194-08-1	150-HxCB	U	ND	pg/L	2.98	105
52663-63-5	151-HxCB	C135				
68194-09-2	152-HxCB	U	ND	pg/L	3.30	105
35065-27-1	153-HxCB	CJ	85.4	pg/L	6.67	210
60145-22-4	154-HxCB	U	ND	pg/L	3.61	105
33979-03-2	155-HxCB	U	ND	pg/L	2.67	105
38380-08-4	156-HxCB	CU	ND	pg/L	10.9	210
69782-90-7	157-HxCB	C156				
74472-42-7	158-HxCB	U	ND	pg/L	10.8	105
39635-35-3	159-HxCB	U	ND	pg/L	4.16	105
41411-62-5	160-HxCB	U	ND	pg/L	6.78	105

Comments:

- B** The target analyte was detected in the associated blank.
C Congener has coeluters. When Cxxx, refer to congener number xxx for data
J Value is estimated
U Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 6 of 8

SDG Number: 2210315
 Lab Sample ID: 20534002
 Client Sample: 1668A Water
 Client ID: 2210315-002J R6 South-20221006
 Batch ID: 51323
 Run Date: 11/11/2022 22:21
 Data File: d08nov22a_7-10
 Prep Batch: 51321
 Prep Date: 02-NOV-22

Client: HALL001
 Date Collected: 10/06/2022 09:05
 Date Received: 10/07/2022 09:47
 Method: EPA Method 1668A
 Analyst: MLL
 Prep Method: SW846 3520C
 Prep Aliquot: 952.9 mL

Project: HALL00113
 Matrix: WATER
 Prep Basis: As Received
 Instrument: HRP875
 Dilution: 1
 Prep SOP Ref: CF-OA-E-001

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
74472-43-8	161-HxCB	U	ND	pg/L	6.11	105
39635-34-2	162-HxCB	U	ND	pg/L	4.13	105
74472-44-9	163-HxCB	C129				
74472-45-0	164-HxCB	U	ND	pg/L	6.00	105
74472-46-1	165-HxCB	U	ND	pg/L	6.78	105
41411-63-6	166-HxCB	C128				
52663-72-6	167-HxCB	J	4.22	pg/L	3.65	105
59291-65-5	168-HxCB	C153				
32774-16-6	169-HxCB	U	ND	pg/L	4.37	105
35065-30-6	170-HpCB	J	32.8	pg/L	3.86	105
52663-71-5	171-HpCB	CU	ND	pg/L	10.5	210
52663-74-8	172-HpCB	J	6.23	pg/L	3.84	105
68194-16-1	173-HpCB	C171				
38411-25-5	174-HpCB	J	27.2	pg/L	3.38	105
40186-70-7	175-HpCB	U	ND	pg/L	3.40	105
52663-65-7	176-HpCB	U	ND	pg/L	3.74	105
52663-70-4	177-HpCB	U	ND	pg/L	18.2	105
52663-67-9	178-HpCB	U	ND	pg/L	8.50	105
52663-64-6	179-HpCB	J	12.2	pg/L	2.52	105
35065-29-3	180-HpCB	CJ	63.2	pg/L	3.09	210
74472-47-2	181-HpCB	U	ND	pg/L	3.63	105
60145-23-5	182-HpCB	U	ND	pg/L	3.27	105
52663-69-1	183-HpCB	CJ	19.3	pg/L	3.44	210
74472-48-3	184-HpCB	U	ND	pg/L	2.48	105
52712-05-7	185-HpCB	C183				
74472-49-4	186-HpCB	U	ND	pg/L	2.64	105
52663-68-0	187-HpCB	J	33.5	pg/L	3.25	105
74487-85-7	188-HpCB	U	ND	pg/L	2.35	105
39635-31-9	189-HpCB	J	3.21	pg/L	3.04	105
41411-64-7	190-HpCB	J	6.07	pg/L	3.00	105
74472-50-7	191-HpCB	U	ND	pg/L	2.79	105
74472-51-8	192-HpCB	U	ND	pg/L	3.13	105

Comments:

- B** The target analyte was detected in the associated blank.
C Congener has coeluters. When Cxxx, refer to congener number xxx for data
J Value is estimated
U Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

SDG Number: 2210315
 Lab Sample ID: 20534002
 Client Sample: 1668A Water
 Client ID: 2210315-002J R6 South-20221006
 Batch ID: 51323
 Run Date: 11/11/2022 22:21
 Data File: d08nov22a_7-10
 Prep Batch: 51321
 Prep Date: 02-NOV-22

Client: HALL001
 Date Collected: 10/06/2022 09:05
 Date Received: 10/07/2022 09:47
 Method: EPA Method 1668A
 Analyst: MLL
 Prep Method: SW846 3520C
 Prep Aliquot: 952.9 mL

Project: HALL00113
 Matrix: WATER
 Prep Basis: As Received
 Instrument: HRP875
 Dilution: 1
 Prep SOP Ref: CF-OA-E-001

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
69782-91-8	193-HpCB	C180				
35694-08-7	194-OcCB	J	16.7	pg/L	3.15	105
52663-78-2	195-OcCB	U	ND	pg/L	6.67	105
42740-50-1	196-OcCB	U	ND	pg/L	8.71	105
33091-17-7	197-OcCB	CU	ND	pg/L	3.97	210
68194-17-2	198-OcCB	CU	ND	pg/L	16.3	210
52663-75-9	199-OcCB	C198				
52663-73-7	200-OcCB	C197				
40186-71-8	201-OcCB	U	ND	pg/L	2.92	105
2136-99-4	202-OcCB	U	ND	pg/L	3.61	105
52663-76-0	203-OcCB	J	9.93	pg/L	4.20	105
74472-52-9	204-OcCB	U	ND	pg/L	3.00	105
74472-53-0	205-OcCB	U	ND	pg/L	2.22	105
40186-72-9	206-NoCB	J	8.02	pg/L	3.82	105
52663-79-3	207-NoCB	U	ND	pg/L	2.85	105
52663-77-1	208-NoCB	U	ND	pg/L	2.98	105
2051-24-3	209-DeCB	U	ND	pg/L	5.18	105
1336-36-3	Total PCB Congeners	J	1100	pg/L		105

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1-MoCB		886	2100	pg/L	42.2	(15%-150%)
13C-3-MoCB		1020	2100	pg/L	48.7	(15%-150%)
13C-4-DiCB		1130	2100	pg/L	53.8	(25%-150%)
13C-15-DiCB		1550	2100	pg/L	73.8	(25%-150%)
13C-19-TrCB		1330	2100	pg/L	63.5	(25%-150%)
13C-37-TrCB		1380	2100	pg/L	65.7	(25%-150%)
13C-54-TeCB		1390	2100	pg/L	66.4	(25%-150%)
13C-77-TeCB		1680	2100	pg/L	79.8	(25%-150%)
13C-81-TeCB		1770	2100	pg/L	84.2	(25%-150%)
13C-104-PeCB		1260	2100	pg/L	60.2	(25%-150%)
13C-105-PeCB		1460	2100	pg/L	69.7	(25%-150%)
13C-114-PeCB		1400	2100	pg/L	66.6	(25%-150%)
13C-118-PeCB		1310	2100	pg/L	62.5	(25%-150%)
13C-123-PeCB		1510	2100	pg/L	71.8	(25%-150%)
13C-126-PeCB		1520	2100	pg/L	72.5	(25%-150%)
13C-155-HxCB		1270	2100	pg/L	60.3	(25%-150%)
13C-156-HxCB	C	2670	4200	pg/L	63.5	(25%-150%)
13C-157-HxCB	C156L					
13C-167-HxCB		1310	2100	pg/L	62.3	(25%-150%)
13C-169-HxCB		1300	2100	pg/L	62.1	(25%-150%)
13C-188-HpCB		1280	2100	pg/L	61.1	(25%-150%)
13C-189-HpCB		1330	2100	pg/L	63.3	(25%-150%)

**PCB Congeners
Certificate of Analysis
Sample Summary**

SDG Number: 2210315	Client: HALL001	Project: HALL00113
Lab Sample ID: 20534002	Date Collected: 10/06/2022 09:05	Matrix: WATER
Client Sample: 1668A Water	Date Received: 10/07/2022 09:47	
Client ID: 2210315-002J R6 South-20221006		Prep Basis: As Received
Batch ID: 51323	Method: EPA Method 1668A	
Run Date: 11/11/2022 22:21	Analyst: MLL	Instrument: HRP875
Data File: d08nov22a_7-10		Dilution: 1
Prep Batch: 51321	Prep Method: SW846 3520C	Prep SOP Ref: CF-OA-E-001
Prep Date: 02-NOV-22	Prep Aliquot: 952.9 mL	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
Surrogate/Tracer recovery						
		Qual	Result	Nominal	Units	Recovery%
						Acceptable Limits
13C-202-OcCB			1260	2100	pg/L	60.1 (25%-150%)
13C-205-OcCB			1590	2100	pg/L	75.6 (25%-150%)
13C-206-NoCB			1610	2100	pg/L	76.8 (25%-150%)
13C-208-NoCB			1420	2100	pg/L	67.8 (25%-150%)
13C-209-DeCB			1590	2100	pg/L	75.8 (25%-150%)
13C-28-TrCB			1570	2100	pg/L	75.0 (30%-135%)
13C-111-PeCB			1650	2100	pg/L	78.5 (30%-135%)
13C-178-HpCB			1800	2100	pg/L	85.9 (30%-135%)

Comments:

- B** The target analyte was detected in the associated blank.
- C** Congener has coeluters. When Cxxx, refer to congener number xxx for data
- J** Value is estimated
- U** Analyte was analyzed for, but not detected above the specified detection limit.

Quality Control Summary

PCB Congeners
Surrogate Recovery Report

SDG Number: 2210315

Matrix Type: LIQUID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
12033077	LCS for batch 51321	13C-1-MoCB		37.9	(15%-140%)
		13C-3-MoCB		43.8	(15%-140%)
		13C-4-DiCB		43.3	(30%-140%)
		13C-15-DiCB		65.1	(30%-140%)
		13C-19-TrCB		53.6	(30%-140%)
		13C-37-TrCB		61.0	(30%-140%)
		13C-54-TeCB		51.6	(30%-140%)
		13C-77-TeCB		64.6	(30%-140%)
		13C-81-TeCB		66.8	(30%-140%)
		13C-104-PeCB		60.0	(30%-140%)
		13C-105-PeCB		57.4	(30%-140%)
		13C-114-PeCB		56.9	(30%-140%)
		13C-118-PeCB		50.5	(30%-140%)
		13C-123-PeCB		58.0	(30%-140%)
		13C-126-PeCB		65.6	(30%-140%)
		13C-155-HxCB		57.6	(30%-140%)
		13C-156-HxCB	C	65.3	(30%-140%)
		13C-157-HxCB	C156L		
		13C-167-HxCB		65.4	(30%-140%)
		13C-169-HxCB		67.8	(30%-140%)
		13C-188-HpCB		56.5	(30%-140%)
		13C-189-HpCB		58.4	(30%-140%)
		13C-202-OcCB		61.1	(30%-140%)
		13C-205-OcCB		70.3	(30%-140%)
		13C-206-NoCB		69.1	(30%-140%)
		13C-208-NoCB		57.7	(30%-140%)
		13C-209-DeCB		68.4	(30%-140%)
		13C-28-TrCB		61.0	(40%-125%)
13C-111-PeCB		64.1	(40%-125%)		
13C-178-HpCB		73.2	(40%-125%)		
12033078	LCSD for batch 51321	13C-1-MoCB		27.2	(15%-140%)
		13C-3-MoCB		31.8	(15%-140%)
		13C-4-DiCB		32.8	(30%-140%)
		13C-15-DiCB		44.8	(30%-140%)
		13C-19-TrCB		41.9	(30%-140%)
		13C-37-TrCB		37.6	(30%-140%)
		13C-54-TeCB		37.5	(30%-140%)
		13C-77-TeCB		41.3	(30%-140%)
		13C-81-TeCB		43.7	(30%-140%)
		13C-104-PeCB		44.2	(30%-140%)
		13C-105-PeCB		43.2	(30%-140%)
		13C-114-PeCB		42.1	(30%-140%)
		13C-118-PeCB		38.2	(30%-140%)
		13C-123-PeCB		44.0	(30%-140%)
		13C-126-PeCB		42.9	(30%-140%)
		13C-155-HxCB		38.2	(30%-140%)
		13C-156-HxCB	C	41.2	(30%-140%)
		13C-157-HxCB	C156L		
		13C-167-HxCB		41.8	(30%-140%)
		13C-169-HxCB		41.8	(30%-140%)
13C-188-HpCB		39.7	(30%-140%)		
13C-189-HpCB		40.8	(30%-140%)		

PCB Congeners
Surrogate Recovery Report

SDG Number: 2210315

Matrix Type: LIQUID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
12033078	LCSD for batch 51321	13C-202-OcCB		39.0	(30%-140%)
		13C-205-OcCB		47.6	(30%-140%)
		13C-206-NoCB		46.5	(30%-140%)
		13C-208-NoCB		40.6	(30%-140%)
		13C-209-DeCB		46.0	(30%-140%)
		13C-28-TrCB		54.9	(40%-125%)
		13C-111-PeCB		61.1	(40%-125%)
		13C-178-HpCB		63.3	(40%-125%)
12033076	MB for batch 51321	13C-1-MoCB		33.3	(15%-150%)
		13C-3-MoCB		38.0	(15%-150%)
		13C-4-DiCB		38.1	(25%-150%)
		13C-15-DiCB		50.4	(25%-150%)
		13C-19-TrCB		45.8	(25%-150%)
		13C-37-TrCB		48.2	(25%-150%)
		13C-54-TeCB		43.6	(25%-150%)
		13C-77-TeCB		56.2	(25%-150%)
		13C-81-TeCB		60.0	(25%-150%)
		13C-104-PeCB		46.6	(25%-150%)
		13C-105-PeCB		48.6	(25%-150%)
		13C-114-PeCB		48.2	(25%-150%)
		13C-118-PeCB		44.1	(25%-150%)
		13C-123-PeCB		50.5	(25%-150%)
		13C-126-PeCB		50.6	(25%-150%)
		13C-155-HxCB		49.8	(25%-150%)
		13C-156-HxCB	C C156L	56.2	(25%-150%)
		13C-157-HxCB		55.7	(25%-150%)
		13C-167-HxCB		57.1	(25%-150%)
		13C-169-HxCB		49.5	(25%-150%)
		13C-188-HpCB		51.5	(25%-150%)
		13C-189-HpCB		51.8	(25%-150%)
		13C-202-OcCB		58.6	(25%-150%)
13C-205-OcCB		57.5	(25%-150%)		
13C-206-NoCB		51.4	(25%-150%)		
13C-208-NoCB		57.7	(25%-150%)		
13C-209-DeCB		51.9	(30%-135%)		
13C-28-TrCB		55.2	(30%-135%)		
13C-111-PeCB		62.0	(30%-135%)		
13C-178-HpCB					
20534001	2210315-001J R6 North-20221005	13C-1-MoCB		39.3	(15%-150%)
		13C-3-MoCB		45.7	(15%-150%)
		13C-4-DiCB		48.0	(25%-150%)
		13C-15-DiCB		72.2	(25%-150%)
		13C-19-TrCB		61.0	(25%-150%)
		13C-37-TrCB		63.6	(25%-150%)
		13C-54-TeCB		62.6	(25%-150%)
		13C-77-TeCB		80.8	(25%-150%)
		13C-81-TeCB		83.2	(25%-150%)
		13C-104-PeCB		57.7	(25%-150%)
		13C-105-PeCB		64.7	(25%-150%)
		13C-114-PeCB		64.4	(25%-150%)
		13C-118-PeCB		60.1	(25%-150%)

PCB Congeners
Surrogate Recovery Report

SDG Number: 2210315

Matrix Type: LIQUID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
20534001	2210315-001J R6 North-20221005	13C-123-PeCB		69.5	(25%-150%)
		13C-126-PeCB		66.9	(25%-150%)
		13C-155-HxCB		64.7	(25%-150%)
		13C-156-HxCB	C	65.5	(25%-150%)
		13C-157-HxCB	C156L		
		13C-167-HxCB		64.6	(25%-150%)
		13C-169-HxCB		64.7	(25%-150%)
		13C-188-HpCB		65.2	(25%-150%)
		13C-189-HpCB		64.9	(25%-150%)
		13C-202-OcCB		64.0	(25%-150%)
		13C-205-OcCB		78.1	(25%-150%)
		13C-206-NoCB		76.0	(25%-150%)
		13C-208-NoCB		73.1	(25%-150%)
		13C-209-DeCB		72.4	(25%-150%)
		13C-28-TrCB		70.7	(30%-135%)
		13C-111-PeCB		78.5	(30%-135%)
		13C-178-HpCB		91.6	(30%-135%)
20534002	2210315-002J R6 South-20221006	13C-1-MoCB		42.2	(15%-150%)
		13C-3-MoCB		48.7	(15%-150%)
		13C-4-DiCB		53.8	(25%-150%)
		13C-15-DiCB		73.8	(25%-150%)
		13C-19-TrCB		63.5	(25%-150%)
		13C-37-TrCB		65.7	(25%-150%)
		13C-54-TeCB		66.4	(25%-150%)
		13C-77-TeCB		79.8	(25%-150%)
		13C-81-TeCB		84.2	(25%-150%)
		13C-104-PeCB		60.2	(25%-150%)
		13C-105-PeCB		69.7	(25%-150%)
		13C-114-PeCB		66.6	(25%-150%)
		13C-118-PeCB		62.5	(25%-150%)
		13C-123-PeCB		71.8	(25%-150%)
		13C-126-PeCB		72.5	(25%-150%)
		13C-155-HxCB		60.3	(25%-150%)
		13C-156-HxCB	C	63.5	(25%-150%)
		13C-157-HxCB	C156L		
		13C-167-HxCB		62.3	(25%-150%)
		13C-169-HxCB		62.1	(25%-150%)
		13C-188-HpCB		61.1	(25%-150%)
		13C-189-HpCB		63.3	(25%-150%)
		13C-202-OcCB		60.1	(25%-150%)
13C-205-OcCB		75.6	(25%-150%)		
13C-206-NoCB		76.8	(25%-150%)		
13C-208-NoCB		67.8	(25%-150%)		
13C-209-DeCB		75.8	(25%-150%)		
13C-28-TrCB		75.0	(30%-135%)		
13C-111-PeCB		78.5	(30%-135%)		
13C-178-HpCB		85.9	(30%-135%)		

* Recovery outside Acceptance Limits

Column to be used to flag recovery values

D Sample Diluted

PCB Congeners
Quality Control Summary
Spike Recovery Report

SDG Number: 2210315
Client ID: LCS for batch 51321
Lab Sample ID: 12033077
Instrument: HRP875
Analyst: MLL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 11/10/2022 12:14
Prep Batch ID: 51321
Batch ID: 51323

Dilution: 1

CAS No.	Parmname	Amount Added pg/L	Spike Conc. pg/L	Recovery %	Acceptance Limits
2051-60-7	LCS 1-MoCB	500	490	98.1	50-150
2051-62-9	LCS 3-MoCB	500	498	99.6	50-150
13029-08-8	LCS 4-DiCB	500	462	92.3	50-150
2050-68-2	LCS 15-DiCB	500	513	103	50-150
38444-73-4	LCS 19-TrCB	500	513	103	50-150
38444-90-5	LCS 37-TrCB	500	483	96.6	50-150
15968-05-5	LCS 54-TeCB	1000	1020	102	50-150
32598-13-3	LCS 77-TeCB	1000	977	97.7	50-150
70362-50-4	LCS 81-TeCB	1000	826	82.6	50-150
56558-16-8	LCS 104-PeCB	1000	1010	101	50-150
32598-14-4	LCS 105-PeCB	1000	924	92.4	50-150
74472-37-0	LCS 114-PeCB	1000	1040	104	50-150
31508-00-6	LCS 118-PeCB	1000	1110	111	50-150
65510-44-3	LCS 123-PeCB	1000	926	92.6	50-150
57465-28-8	LCS 126-PeCB	1000	993	99.3	50-150
33979-03-2	LCS 155-HxCB	1000	1000	100	50-150
38380-08-4	LCS 156-HxCB	2000	C 1980	98.9	50-150
69782-90-7	LCS 157-HxCB		C156		
52663-72-6	LCS 167-HxCB	1000	1000	100	50-150
32774-16-6	LCS 169-HxCB	1000	967	96.7	50-150
74487-85-7	LCS 188-HpCB	1000	997	99.7	50-150
39635-31-9	LCS 189-HpCB	1000	1010	101	50-150
2136-99-4	LCS 202-OcCB	1500	1620	108	50-150
74472-53-0	LCS 205-OcCB	1500	1450	96.4	50-150
40186-72-9	LCS 206-NoCB	1500	1490	99.3	50-150
52663-77-1	LCS 208-NoCB	1500	1590	106	50-150
2051-24-3	LCS 209-DeCB	1500	1430	95.4	50-150

PCB Congeners
Quality Control Summary
Spike Recovery Report

SDG Number: 2210315
Client ID: LCSD for batch 51321
Lab Sample ID: 12033078
Instrument: HRP875
Analyst: MLL

Sample Type: Laboratory Control Sample Duplicate
Matrix: WATER
Analysis Date: 11/10/2022 13:23
Prep Batch ID: 51321
Batch ID: 51323
Dilution: 1

CAS No.	Parmname	Amount Added pg/L	Spike Conc. pg/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
2051-60-7	LCSD 1-MoCB	500	443	88.5	50-150	10.2	0-20
2051-62-9	LCSD 3-MoCB	500	480	96	50-150	3.66	0-20
13029-08-8	LCSD 4-DiCB	500	425	85	50-150	8.22	0-20
2050-68-2	LCSD 15-DiCB	500	471	94.3	50-150	8.51	0-20
38444-73-4	LCSD 19-TrCB	500	473	94.5	50-150	8.26	0-20
38444-90-5	LCSD 37-TrCB	500	456	91.2	50-150	5.67	0-20
15968-05-5	LCSD 54-TeCB	1000	988	98.8	50-150	3.41	0-20
32598-13-3	LCSD 77-TeCB	1000	901	90.1	50-150	8.10	0-20
70362-50-4	LCSD 81-TeCB	1000	769	76.9	50-150	7.23	0-20
56558-16-8	LCSD 104-PeCB	1000	953	95.3	50-150	5.83	0-20
32598-14-4	LCSD 105-PeCB	1000	847	84.7	50-150	8.71	0-20
74472-37-0	LCSD 114-PeCB	1000	985	98.5	50-150	5.75	0-20
31508-00-6	LCSD 118-PeCB	1000	1010	101	50-150	9.72	0-20
65510-44-3	LCSD 123-PeCB	1000	818	81.8	50-150	12.3	0-20
57465-28-8	LCSD 126-PeCB	1000	947	94.7	50-150	4.74	0-20
33979-03-2	LCSD 155-HxCB	1000	941	94.1	50-150	6.09	0-20
38380-08-4	LCSD 156-HxCB	2000	C 1830	91.4	50-150	7.91	0-20
69782-90-7	LCSD 157-HxCB		C156				
52663-72-6	LCSD 167-HxCB	1000	933	93.3	50-150	7.24	0-20
32774-16-6	LCSD 169-HxCB	1000	907	90.7	50-150	6.37	0-20
74487-85-7	LCSD 188-HpCB	1000	909	90.9	50-150	9.26	0-20
39635-31-9	LCSD 189-HpCB	1000	895	89.5	50-150	12.1	0-20
2136-99-4	LCSD 202-OcCB	1500	1510	100	50-150	7.05	0-20
74472-53-0	LCSD 205-OcCB	1500	1340	89.4	50-150	7.52	0-20
40186-72-9	LCSD 206-NoCB	1500	1420	94.8	50-150	4.66	0-20
52663-77-1	LCSD 208-NoCB	1500	1530	102	50-150	4.20	0-20
2051-24-3	LCSD 209-DeCB	1500	1330	88.7	50-150	7.30	0-20

Method Blank Summary

Page 1 of 1

SDG Number: 2210315
Client ID: MB for batch 51321
Lab Sample ID: 12033076
Column:

Client: HALL001
Instrument ID: HRP875
Prep Date: 02-NOV-22

Matrix: WATER
Data File: d08nov22a_5-3
Analyzed: 11/10/22 14:33

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 51321	12033077	d08nov22a_5-1	11/10/22	1214
02 LCSD for batch 51321	12033078	d08nov22a_5-2	11/10/22	1323
03 2210315-001J R6 North-20221005	20534001	d08nov22a_7-9	11/11/22	2111
04 2210315-002J R6 South-20221006	20534002	d08nov22a_7-10	11/11/22	2221

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 1 of 8

SDG Number: 2210315	Client: HALL001	Project: HALL00113
Lab Sample ID: 12033076		Matrix: WATER
Client Sample: QC for batch 51321		
Client ID: MB for batch 51321		Prep Basis: As Received
Batch ID: 51323	Method: EPA Method 1668A	
Run Date: 11/10/2022 14:33	Analyst: MLL	Instrument: HRP875
Data File: d08nov22a_5-3		Dilution: 1
Prep Batch: 51321	Prep Method: SW846 3520C	Prep SOP Ref: CF-OA-E-001
Prep Date: 02-NOV-22	Prep Aliquot: 1000 mL	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
2051-60-7	1-MoCB	U	ND	pg/L	4.24	100
2051-61-8	2-MoCB	U	ND	pg/L	4.84	100
2051-62-9	3-MoCB	U	ND	pg/L	3.80	100
13029-08-8	4-DiCB	U	ND	pg/L	11.4	100
16605-91-7	5-DiCB	U	ND	pg/L	9.04	100
25569-80-6	6-DiCB	U	ND	pg/L	7.52	100
33284-50-3	7-DiCB	U	ND	pg/L	7.66	100
34883-43-7	8-DiCB	U	ND	pg/L	6.54	100
34883-39-1	9-DiCB	U	ND	pg/L	8.86	100
33146-45-1	10-DiCB	U	ND	pg/L	6.40	100
2050-67-1	11-DiCB	U	ND	pg/L	58.1	100
2974-92-7	12-DiCB	CU	ND	pg/L	7.68	200
2974-90-5	13-DiCB	C12				
34883-41-5	14-DiCB	U	ND	pg/L	7.86	100
2050-68-2	15-DiCB	U	ND	pg/L	6.96	100
38444-78-9	16-TrCB	U	ND	pg/L	5.24	100
37680-66-3	17-TrCB	U	ND	pg/L	5.26	100
37680-65-2	18-TrCB	CU	ND	pg/L	4.46	200
38444-73-4	19-TrCB	U	ND	pg/L	5.52	100
38444-84-7	20-TrCB	CJ	5.80	pg/L	3.66	200
55702-46-0	21-TrCB	CU	ND	pg/L	3.52	200
38444-85-8	22-TrCB	U	ND	pg/L	3.82	100
55720-44-0	23-TrCB	U	ND	pg/L	3.82	100
55702-45-9	24-TrCB	U	ND	pg/L	4.22	100
55712-37-3	25-TrCB	U	ND	pg/L	3.36	100
38444-81-4	26-TrCB	CU	ND	pg/L	3.82	200
38444-76-7	27-TrCB	U	ND	pg/L	4.04	100
7012-37-5	28-TrCB	C20				
15862-07-4	29-TrCB	C26				
35693-92-6	30-TrCB	C18				
16606-02-3	31-TrCB	U	ND	pg/L	3.52	100
38444-77-8	32-TrCB	U	ND	pg/L	3.68	100

Comments:

- C** Congener has coeluters. When Cxxx, refer to congener number xxx for data
- J** Value is estimated
- U** Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 2 of 8

SDG Number: 2210315	Client: HALL001	Project: HALL00113
Lab Sample ID: 12033076		Matrix: WATER
Client Sample: QC for batch 51321		
Client ID: MB for batch 51321		Prep Basis: As Received
Batch ID: 51323	Method: EPA Method 1668A	
Run Date: 11/10/2022 14:33	Analyst: MLL	Instrument: HRP875
Data File: d08nov22a_5-3		Dilution: 1
Prep Batch: 51321	Prep Method: SW846 3520C	Prep SOP Ref: CF-OA-E-001
Prep Date: 02-NOV-22	Prep Aliquot: 1000 mL	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
38444-86-9	33-TrCB	C21				
37680-68-5	34-TrCB	U	ND	pg/L	4.14	100
37680-69-6	35-TrCB	U	ND	pg/L	5.24	100
38444-87-0	36-TrCB	U	ND	pg/L	4.62	100
38444-90-5	37-TrCB	U	ND	pg/L	4.66	100
53555-66-1	38-TrCB	U	ND	pg/L	5.26	100
38444-88-1	39-TrCB	U	ND	pg/L	5.12	100
38444-93-8	40-TeCB	CU	ND	pg/L	4.88	200
52663-59-9	41-TeCB	U	ND	pg/L	6.64	100
36559-22-5	42-TeCB	U	ND	pg/L	5.40	100
70362-46-8	43-TeCB	U	ND	pg/L	6.46	100
41464-39-5	44-TeCB	CU	ND	pg/L	6.04	300
70362-45-7	45-TeCB	CU	ND	pg/L	3.42	200
41464-47-5	46-TeCB	U	ND	pg/L	3.54	100
2437-79-8	47-TeCB	C44				
70362-47-9	48-TeCB	U	ND	pg/L	5.38	100
41464-40-8	49-TeCB	CU	ND	pg/L	4.44	200
62796-65-0	50-TeCB	CU	ND	pg/L	3.34	200
68194-04-7	51-TeCB	C45				
35693-99-3	52-TeCB	J	8.28	pg/L	5.84	200
41464-41-9	53-TeCB	C50				
15968-05-5	54-TeCB	U	ND	pg/L	2.26	100
74338-24-2	55-TeCB	U	ND	pg/L	4.76	100
41464-43-1	56-TeCB	U	ND	pg/L	4.80	100
70424-67-8	57-TeCB	U	ND	pg/L	4.56	100
41464-49-7	58-TeCB	U	ND	pg/L	4.72	100
74472-33-6	59-TeCB	CU	ND	pg/L	4.12	300
33025-41-1	60-TeCB	U	ND	pg/L	4.66	100
33284-53-6	61-TeCB	CJ	7.58	pg/L	4.50	400
54230-22-7	62-TeCB	C59				
74472-34-7	63-TeCB	U	ND	pg/L	4.44	100
52663-58-8	64-TeCB	U	ND	pg/L	3.86	100

Comments:

- C** Congener has coeluters. When Cxxx, refer to congener number xxx for data
- J** Value is estimated
- U** Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 3 of 8

SDG Number: 2210315	Client: HALL001	Project: HALL00113
Lab Sample ID: 12033076		Matrix: WATER
Client Sample: QC for batch 51321		
Client ID: MB for batch 51321		Prep Basis: As Received
Batch ID: 51323	Method: EPA Method 1668A	
Run Date: 11/10/2022 14:33	Analyst: MLL	Instrument: HRP875
Data File: d08nov22a_5-3		Dilution: 1
Prep Batch: 51321	Prep Method: SW846 3520C	Prep SOP Ref: CF-OA-E-001
Prep Date: 02-NOV-22	Prep Aliquot: 1000 mL	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
33284-54-7	65-TeCB	C44				
32598-10-0	66-TeCB	U	ND	pg/L	4.66	100
73575-53-8	67-TeCB	U	ND	pg/L	3.66	100
73575-52-7	68-TeCB	U	ND	pg/L	4.02	100
60233-24-1	69-TeCB	C49				
32598-11-1	70-TeCB	C61				
41464-46-4	71-TeCB	C40				
41464-42-0	72-TeCB	U	ND	pg/L	4.34	100
74338-23-1	73-TeCB	U	ND	pg/L	3.84	100
32690-93-0	74-TeCB	C61				
32598-12-2	75-TeCB	C59				
70362-48-0	76-TeCB	C61				
32598-13-3	77-TeCB	U	ND	pg/L	4.76	100
70362-49-1	78-TeCB	U	ND	pg/L	5.30	100
41464-48-6	79-TeCB	U	ND	pg/L	4.20	100
33284-52-5	80-TeCB	U	ND	pg/L	4.04	100
70362-50-4	81-TeCB	U	ND	pg/L	4.04	100
52663-62-4	82-PeCB	U	ND	pg/L	6.86	100
60145-20-2	83-PeCB	U	ND	pg/L	7.94	100
52663-60-2	84-PeCB	U	ND	pg/L	5.86	100
65510-45-4	85-PeCB	CU	ND	pg/L	4.86	300
55312-69-1	86-PeCB	CJ	6.84	pg/L	4.90	600
38380-02-8	87-PeCB	C86				
55215-17-3	88-PeCB	CU	ND	pg/L	5.84	200
73575-57-2	89-PeCB	U	ND	pg/L	6.96	100
68194-07-0	90-PeCB	CU	ND	pg/L	7.70	300
68194-05-8	91-PeCB	C88				
52663-61-3	92-PeCB	U	ND	pg/L	6.42	100
73575-56-1	93-PeCB	CU	ND	pg/L	5.26	200
73575-55-0	94-PeCB	U	ND	pg/L	5.60	100
38379-99-6	95-PeCB	U	ND	pg/L	6.24	100
73575-54-9	96-PeCB	U	ND	pg/L	3.24	100

Comments:

- C** Congener has coeluters. When Cxxx, refer to congener number xxx for data
- J** Value is estimated
- U** Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 4 of 8

SDG Number: 2210315	Client: HALL001	Project: HALL00113
Lab Sample ID: 12033076		Matrix: WATER
Client Sample: QC for batch 51321		
Client ID: MB for batch 51321		Prep Basis: As Received
Batch ID: 51323	Method: EPA Method 1668A	
Run Date: 11/10/2022 14:33	Analyst: MLL	Instrument: HRP875
Data File: d08nov22a_5-3		Dilution: 1
Prep Batch: 51321	Prep Method: SW846 3520C	Prep SOP Ref: CF-OA-E-001
Prep Date: 02-NOV-22	Prep Aliquot: 1000 mL	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
41464-51-1	97-PeCB	C86				
60233-25-2	98-PeCB	CU	ND	pg/L	5.32	200
38380-01-7	99-PeCB	U	ND	pg/L	5.34	100
39485-83-1	100-PeCB	C93				
37680-73-2	101-PeCB	C90				
68194-06-9	102-PeCB	C98				
60145-21-3	103-PeCB	U	ND	pg/L	5.42	100
56558-16-8	104-PeCB	U	ND	pg/L	2.42	100
32598-14-4	105-PeCB	U	ND	pg/L	4.16	100
70424-69-0	106-PeCB	U	ND	pg/L	4.48	100
70424-68-9	107-PeCB	U	ND	pg/L	3.60	100
70362-41-3	108-PeCB	CU	ND	pg/L	4.32	200
74472-35-8	109-PeCB	C86				
38380-03-9	110-PeCB	CU	ND	pg/L	6.76	200
39635-32-0	111-PeCB	U	ND	pg/L	4.16	100
74472-36-9	112-PeCB	U	ND	pg/L	3.94	100
68194-10-5	113-PeCB	C90				
74472-37-0	114-PeCB	U	ND	pg/L	3.92	100
74472-38-1	115-PeCB	C110				
18259-05-7	116-PeCB	C85				
68194-11-6	117-PeCB	C85				
31508-00-6	118-PeCB	J	5.50	pg/L	4.02	100
56558-17-9	119-PeCB	C86				
68194-12-7	120-PeCB	U	ND	pg/L	4.38	100
56558-18-0	121-PeCB	U	ND	pg/L	4.12	100
76842-07-4	122-PeCB	U	ND	pg/L	5.68	100
65510-44-3	123-PeCB	U	ND	pg/L	3.70	100
70424-70-3	124-PeCB	C108				
74472-39-2	125-PeCB	C86				
57465-28-8	126-PeCB	U	ND	pg/L	4.76	100
39635-33-1	127-PeCB	U	ND	pg/L	4.44	100
38380-07-3	128-HxCB	CU	ND	pg/L	5.02	200

Comments:

- C** Congener has coeluters. When Cxxx, refer to congener number xxx for data
- J** Value is estimated
- U** Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 5 of 8

SDG Number: 2210315
Lab Sample ID: 12033076
Client Sample: QC for batch 51321
Client ID: MB for batch 51321
Batch ID: 51323
Run Date: 11/10/2022 14:33
Data File: d08nov22a_5-3
Prep Batch: 51321
Prep Date: 02-NOV-22

Client: HALL001

Method: EPA Method 1668A
Analyst: MLL

Prep Method: SW846 3520C
Prep Aliquot: 1000 mL

Project: HALL00113
Matrix: WATER

Prep Basis: As Received

Instrument: HRP875
Dilution: 1
Prep SOP Ref: CF-OA-E-001

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
55215-18-4	129-HxCB	CU	ND	pg/L	6.82	300
52663-66-8	130-HxCB	U	ND	pg/L	6.36	100
61798-70-7	131-HxCB	U	ND	pg/L	6.48	100
38380-05-1	132-HxCB	U	ND	pg/L	5.90	100
35694-04-3	133-HxCB	U	ND	pg/L	6.18	100
52704-70-8	134-HxCB	U	ND	pg/L	6.48	100
52744-13-5	135-HxCB	CU	ND	pg/L	4.58	200
38411-22-2	136-HxCB	U	ND	pg/L	3.48	100
35694-06-5	137-HxCB	U	ND	pg/L	5.58	100
35065-28-2	138-HxCB	C129				
56030-56-9	139-HxCB	CU	ND	pg/L	5.20	200
59291-64-4	140-HxCB	C139				
52712-04-6	141-HxCB	U	ND	pg/L	5.24	100
41411-61-4	142-HxCB	U	ND	pg/L	6.30	100
68194-15-0	143-HxCB	U	ND	pg/L	5.98	100
68194-14-9	144-HxCB	U	ND	pg/L	4.50	100
74472-40-5	145-HxCB	U	ND	pg/L	3.30	100
51908-16-8	146-HxCB	U	ND	pg/L	5.00	100
68194-13-8	147-HxCB	CU	ND	pg/L	5.08	200
74472-41-6	148-HxCB	U	ND	pg/L	4.38	100
38380-04-0	149-HxCB	C147				
68194-08-1	150-HxCB	U	ND	pg/L	3.16	100
52663-63-5	151-HxCB	C135				
68194-09-2	152-HxCB	U	ND	pg/L	3.38	100
35065-27-1	153-HxCB	CJ	4.94	pg/L	4.58	200
60145-22-4	154-HxCB	U	ND	pg/L	3.64	100
33979-03-2	155-HxCB	U	ND	pg/L	2.48	100
38380-08-4	156-HxCB	CU	ND	pg/L	4.10	200
69782-90-7	157-HxCB	C156				
74472-42-7	158-HxCB	U	ND	pg/L	3.68	100
39635-35-3	159-HxCB	U	ND	pg/L	3.54	100
41411-62-5	160-HxCB	U	ND	pg/L	4.46	100

Comments:

- C** Congener has coeluters. When Cxxx, refer to congener number xxx for data
J Value is estimated
U Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 6 of 8

SDG Number: 2210315
Lab Sample ID: 12033076
Client Sample: QC for batch 51321
Client ID: MB for batch 51321
Batch ID: 51323
Run Date: 11/10/2022 14:33
Data File: d08nov22a_5-3
Prep Batch: 51321
Prep Date: 02-NOV-22

Client: HALL001
Method: EPA Method 1668A
Analyst: MLL
Prep Method: SW846 3520C
Prep Aliquot: 1000 mL

Project: HALL00113
Matrix: WATER
Prep Basis: As Received
Instrument: HRP875
Dilution: 1
Prep SOP Ref: CF-OA-E-001

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
74472-43-8	161-HxCB	U	ND	pg/L	4.34	100
39635-34-2	162-HxCB	U	ND	pg/L	3.46	100
74472-44-9	163-HxCB	C129				
74472-45-0	164-HxCB	U	ND	pg/L	4.12	100
74472-46-1	165-HxCB	U	ND	pg/L	4.58	100
41411-63-6	166-HxCB	C128				
52663-72-6	167-HxCB	U	ND	pg/L	3.06	100
59291-65-5	168-HxCB	C153				
32774-16-6	169-HxCB	U	ND	pg/L	3.52	100
35065-30-6	170-HpCB	U	ND	pg/L	4.72	100
52663-71-5	171-HpCB	CU	ND	pg/L	4.98	200
52663-74-8	172-HpCB	U	ND	pg/L	4.90	100
68194-16-1	173-HpCB	C171				
38411-25-5	174-HpCB	U	ND	pg/L	4.64	100
40186-70-7	175-HpCB	U	ND	pg/L	4.20	100
52663-65-7	176-HpCB	U	ND	pg/L	3.24	100
52663-70-4	177-HpCB	U	ND	pg/L	5.02	100
52663-67-9	178-HpCB	U	ND	pg/L	4.46	100
52663-64-6	179-HpCB	U	ND	pg/L	3.16	100
35065-29-3	180-HpCB	CU	ND	pg/L	3.88	200
74472-47-2	181-HpCB	U	ND	pg/L	4.80	100
60145-23-5	182-HpCB	U	ND	pg/L	4.04	100
52663-69-1	183-HpCB	CU	ND	pg/L	4.64	200
74472-48-3	184-HpCB	U	ND	pg/L	3.10	100
52712-05-7	185-HpCB	C183				
74472-49-4	186-HpCB	U	ND	pg/L	3.22	100
52663-68-0	187-HpCB	U	ND	pg/L	4.08	100
74487-85-7	188-HpCB	U	ND	pg/L	2.70	100
39635-31-9	189-HpCB	U	ND	pg/L	4.02	100
41411-64-7	190-HpCB	U	ND	pg/L	3.48	100
74472-50-7	191-HpCB	U	ND	pg/L	3.44	100
74472-51-8	192-HpCB	U	ND	pg/L	4.00	100

Comments:

- C** Congener has coeluters. When Cxxx, refer to congener number xxx for data
J Value is estimated
U Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 7 of 8

SDG Number: 2210315	Client: HALL001	Project: HALL00113
Lab Sample ID: 12033076		Matrix: WATER
Client Sample: QC for batch 51321		
Client ID: MB for batch 51321		Prep Basis: As Received
Batch ID: 51323	Method: EPA Method 1668A	
Run Date: 11/10/2022 14:33	Analyst: MLL	Instrument: HRP875
Data File: d08nov22a_5-3		Dilution: 1
Prep Batch: 51321	Prep Method: SW846 3520C	Prep SOP Ref: CF-OA-E-001
Prep Date: 02-NOV-22	Prep Aliquot: 1000 mL	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
69782-91-8	193-HpCB	C180				
35694-08-7	194-OcCB	U	ND	pg/L	3.80	100
52663-78-2	195-OcCB	U	ND	pg/L	4.02	100
42740-50-1	196-OcCB	U	ND	pg/L	3.70	100
33091-17-7	197-OcCB	CU	ND	pg/L	2.94	200
68194-17-2	198-OcCB	CU	ND	pg/L	3.84	200
52663-75-9	199-OcCB	C198				
52663-73-7	200-OcCB	C197				
40186-71-8	201-OcCB	U	ND	pg/L	2.74	100
2136-99-4	202-OcCB	U	ND	pg/L	2.74	100
52663-76-0	203-OcCB	U	ND	pg/L	3.66	100
74472-52-9	204-OcCB	U	ND	pg/L	2.82	100
74472-53-0	205-OcCB	U	ND	pg/L	3.00	100
40186-72-9	206-NoCB	U	ND	pg/L	5.48	100
52663-79-3	207-NoCB	U	ND	pg/L	4.04	100
52663-77-1	208-NoCB	U	ND	pg/L	3.76	100
2051-24-3	209-DeCB	U	ND	pg/L	4.54	100
1336-36-3	Total PCB Congeners	J	38.9	pg/L		100

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1-MoCB		666	2000	pg/L	33.3	(15%-150%)
13C-3-MoCB		760	2000	pg/L	38.0	(15%-150%)
13C-4-DiCB		761	2000	pg/L	38.1	(25%-150%)
13C-15-DiCB		1010	2000	pg/L	50.4	(25%-150%)
13C-19-TrCB		915	2000	pg/L	45.8	(25%-150%)
13C-37-TrCB		963	2000	pg/L	48.2	(25%-150%)
13C-54-TeCB		872	2000	pg/L	43.6	(25%-150%)
13C-77-TeCB		1120	2000	pg/L	56.2	(25%-150%)
13C-81-TeCB		1200	2000	pg/L	60.0	(25%-150%)
13C-104-PeCB		932	2000	pg/L	46.6	(25%-150%)
13C-105-PeCB		971	2000	pg/L	48.6	(25%-150%)
13C-114-PeCB		964	2000	pg/L	48.2	(25%-150%)
13C-118-PeCB		882	2000	pg/L	44.1	(25%-150%)
13C-123-PeCB		1010	2000	pg/L	50.5	(25%-150%)
13C-126-PeCB		1010	2000	pg/L	50.6	(25%-150%)
13C-155-HxCB		996	2000	pg/L	49.8	(25%-150%)
13C-156-HxCB	C	2250	4000	pg/L	56.2	(25%-150%)
13C-157-HxCB	C156L					
13C-167-HxCB		1110	2000	pg/L	55.7	(25%-150%)
13C-169-HxCB		1140	2000	pg/L	57.1	(25%-150%)
13C-188-HpCB		989	2000	pg/L	49.5	(25%-150%)
13C-189-HpCB		1030	2000	pg/L	51.5	(25%-150%)

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 8 of 8

SDG Number: 2210315	Client: HALL001	Project: HALL00113
Lab Sample ID: 12033076		Matrix: WATER
Client Sample: QC for batch 51321		
Client ID: MB for batch 51321		Prep Basis: As Received
Batch ID: 51323	Method: EPA Method 1668A	
Run Date: 11/10/2022 14:33	Analyst: MLL	Instrument: HRP875
Data File: d08nov22a_5-3		Dilution: 1
Prep Batch: 51321	Prep Method: SW846 3520C	Prep SOP Ref: CF-OA-E-001
Prep Date: 02-NOV-22	Prep Aliquot: 1000 mL	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL	
Surrogate/Tracer recovery							
		Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-202-OcCB			1040	2000	pg/L	51.8	(25%-150%)
13C-205-OcCB			1170	2000	pg/L	58.6	(25%-150%)
13C-206-NoCB			1150	2000	pg/L	57.5	(25%-150%)
13C-208-NoCB			1030	2000	pg/L	51.4	(25%-150%)
13C-209-DeCB			1150	2000	pg/L	57.7	(25%-150%)
13C-28-TrCB			1040	2000	pg/L	51.9	(30%-135%)
13C-111-PeCB			1100	2000	pg/L	55.2	(30%-135%)
13C-178-HpCB			1240	2000	pg/L	62.0	(30%-135%)

Comments:

- C** Congener has coeluters. When Cxxx, refer to congener number xxx for data
- J** Value is estimated
- U** Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: 2210315	Client: HALL001	Project: HALL00113
Lab Sample ID: 12033077		Matrix: WATER
Client Sample: QC for batch 51321		
Client ID: LCS for batch 51321		Prep Basis: As Received
Batch ID: 51323	Method: EPA Method 1668A	
Run Date: 11/10/2022 12:14	Analyst: MLL	Instrument: HRP875
Data File: d08nov22a_5-1		Dilution: 1
Prep Batch: 51321	Prep Method: SW846 3520C	Prep SOP Ref: CF-OA-E-001
Prep Date: 02-NOV-22	Prep Aliquot: 1000 mL	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
2051-60-7	1-MoCB		490	pg/L	5.90	100
2051-62-9	3-MoCB		498	pg/L	5.40	100
13029-08-8	4-DiCB		462	pg/L	9.84	100
2050-68-2	15-DiCB		513	pg/L	8.46	100
38444-73-4	19-TrCB		513	pg/L	7.04	100
38444-90-5	37-TrCB		483	pg/L	12.0	100
15968-05-5	54-TeCB		1020	pg/L	3.78	100
32598-13-3	77-TeCB		977	pg/L	16.2	100
70362-50-4	81-TeCB		826	pg/L	15.1	100
56558-16-8	104-PeCB		1010	pg/L	2.54	100
32598-14-4	105-PeCB		924	pg/L	19.9	100
74472-37-0	114-PeCB		1040	pg/L	18.6	100
31508-00-6	118-PeCB		1110	pg/L	18.9	100
65510-44-3	123-PeCB		926	pg/L	17.8	100
57465-28-8	126-PeCB		993	pg/L	20.4	100
33979-03-2	155-HxCB		1000	pg/L	2.64	100
38380-08-4	156-HxCB	C	1980	pg/L	17.4	200
69782-90-7	157-HxCB	C156				
52663-72-6	167-HxCB		1000	pg/L	12.8	100
32774-16-6	169-HxCB		967	pg/L	14.7	100
74487-85-7	188-HpCB		997	pg/L	3.20	100
39635-31-9	189-HpCB		1010	pg/L	8.64	100
2136-99-4	202-OcCB		1620	pg/L	22.6	100
74472-53-0	205-OcCB		1450	pg/L	9.54	100
40186-72-9	206-NoCB		1490	pg/L	7.36	100
52663-77-1	208-NoCB		1590	pg/L	5.44	100
2051-24-3	209-DeCB		1430	pg/L	4.50	100

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1-MoCB		757	2000	pg/L	37.9	(15%-140%)
13C-3-MoCB		876	2000	pg/L	43.8	(15%-140%)
13C-4-DiCB		865	2000	pg/L	43.3	(30%-140%)
13C-15-DiCB		1300	2000	pg/L	65.1	(30%-140%)
13C-19-TrCB		1070	2000	pg/L	53.6	(30%-140%)
13C-37-TrCB		1220	2000	pg/L	61.0	(30%-140%)
13C-54-TeCB		1030	2000	pg/L	51.6	(30%-140%)
13C-77-TeCB		1290	2000	pg/L	64.6	(30%-140%)
13C-81-TeCB		1340	2000	pg/L	66.8	(30%-140%)
13C-104-PeCB		1200	2000	pg/L	60.0	(30%-140%)
13C-105-PeCB		1150	2000	pg/L	57.4	(30%-140%)
13C-114-PeCB		1140	2000	pg/L	56.9	(30%-140%)
13C-118-PeCB		1010	2000	pg/L	50.5	(30%-140%)

**PCB Congeners
Certificate of Analysis
Sample Summary**

SDG Number: 2210315	Client: HALL001	Project: HALL00113
Lab Sample ID: 12033077		Matrix: WATER
Client Sample: QC for batch 51321		
Client ID: LCS for batch 51321		Prep Basis: As Received
Batch ID: 51323	Method: EPA Method 1668A	
Run Date: 11/10/2022 12:14	Analyst: MLL	Instrument: HRP875
Data File: d08nov22a_5-1		Dilution: 1
Prep Batch: 51321	Prep Method: SW846 3520C	Prep SOP Ref: CF-OA-E-001
Prep Date: 02-NOV-22	Prep Aliquot: 1000 mL	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
Surrogate/Tracer recovery						
		Qual	Result	Nominal	Units	Recovery%
						Acceptable Limits
13C-123-PeCB			1160	2000	pg/L	58.0 (30%-140%)
13C-126-PeCB			1310	2000	pg/L	65.6 (30%-140%)
13C-155-HxCB			1150	2000	pg/L	57.6 (30%-140%)
13C-156-HxCB		C	2610	4000	pg/L	65.3 (30%-140%)
13C-157-HxCB		C156L				
13C-167-HxCB			1310	2000	pg/L	65.4 (30%-140%)
13C-169-HxCB			1360	2000	pg/L	67.8 (30%-140%)
13C-188-HpCB			1130	2000	pg/L	56.5 (30%-140%)
13C-189-HpCB			1170	2000	pg/L	58.4 (30%-140%)
13C-202-OcCB			1220	2000	pg/L	61.1 (30%-140%)
13C-205-OcCB			1410	2000	pg/L	70.3 (30%-140%)
13C-206-NoCB			1380	2000	pg/L	69.1 (30%-140%)
13C-208-NoCB			1150	2000	pg/L	57.7 (30%-140%)
13C-209-DeCB			1370	2000	pg/L	68.4 (30%-140%)
13C-28-TrCB			1220	2000	pg/L	61.0 (40%-125%)
13C-111-PeCB			1280	2000	pg/L	64.1 (40%-125%)
13C-178-HpCB			1460	2000	pg/L	73.2 (40%-125%)

Comments:
C Congener has coeluters. When Cxxx, refer to congener number xxx for data
U Analyte was analyzed for, but not detected above the specified detection limit.

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: 2210315	Client: HALL001	Project: HALL00113
Lab Sample ID: 12033078		Matrix: WATER
Client Sample: QC for batch 51321		
Client ID: LCSD for batch 51321		Prep Basis: As Received
Batch ID: 51323	Method: EPA Method 1668A	
Run Date: 11/10/2022 13:23	Analyst: MLL	Instrument: HRP875
Data File: d08nov22a_5-2		Dilution: 1
Prep Batch: 51321	Prep Method: SW846 3520C	Prep SOP Ref: CF-OA-E-001
Prep Date: 02-NOV-22	Prep Aliquot: 1000 mL	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
2051-60-7	1-MoCB		443	pg/L	6.46	100
2051-62-9	3-MoCB		480	pg/L	7.18	100
13029-08-8	4-DiCB		425	pg/L	11.5	100
2050-68-2	15-DiCB		471	pg/L	12.7	100
38444-73-4	19-TrCB		473	pg/L	9.06	100
38444-90-5	37-TrCB		456	pg/L	16.4	100
15968-05-5	54-TeCB		988	pg/L	4.04	100
32598-13-3	77-TeCB		901	pg/L	27.0	100
70362-50-4	81-TeCB		769	pg/L	25.2	100
56558-16-8	104-PeCB		953	pg/L	3.18	100
32598-14-4	105-PeCB		847	pg/L	23.4	100
74472-37-0	114-PeCB		985	pg/L	20.8	100
31508-00-6	118-PeCB		1010	pg/L	23.3	100
65510-44-3	123-PeCB		818	pg/L	19.9	100
57465-28-8	126-PeCB		947	pg/L	26.0	100
33979-03-2	155-HxCB		941	pg/L	9.38	100
38380-08-4	156-HxCB	C	1830	pg/L	21.8	200
69782-90-7	157-HxCB	C156				
52663-72-6	167-HxCB		933	pg/L	16.1	100
32774-16-6	169-HxCB		907	pg/L	18.4	100
74487-85-7	188-HpCB		909	pg/L	3.64	100
39635-31-9	189-HpCB		895	pg/L	8.12	100
2136-99-4	202-OcCB		1510	pg/L	25.5	100
74472-53-0	205-OcCB		1340	pg/L	7.66	100
40186-72-9	206-NoCB		1420	pg/L	9.36	100
52663-77-1	208-NoCB		1530	pg/L	6.86	100
2051-24-3	209-DeCB		1330	pg/L	5.86	100

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-1-MoCB		544	2000	pg/L	27.2	(15%-140%)
13C-3-MoCB		636	2000	pg/L	31.8	(15%-140%)
13C-4-DiCB		656	2000	pg/L	32.8	(30%-140%)
13C-15-DiCB		895	2000	pg/L	44.8	(30%-140%)
13C-19-TrCB		838	2000	pg/L	41.9	(30%-140%)
13C-37-TrCB		753	2000	pg/L	37.6	(30%-140%)
13C-54-TeCB		750	2000	pg/L	37.5	(30%-140%)
13C-77-TeCB		827	2000	pg/L	41.3	(30%-140%)
13C-81-TeCB		874	2000	pg/L	43.7	(30%-140%)
13C-104-PeCB		884	2000	pg/L	44.2	(30%-140%)
13C-105-PeCB		864	2000	pg/L	43.2	(30%-140%)
13C-114-PeCB		843	2000	pg/L	42.1	(30%-140%)
13C-118-PeCB		764	2000	pg/L	38.2	(30%-140%)

**PCB Congeners
Certificate of Analysis
Sample Summary**

Page 2 of 2

SDG Number: 2210315	Client: HALL001	Project: HALL00113
Lab Sample ID: 12033078		Matrix: WATER
Client Sample: QC for batch 51321		
Client ID: LCSD for batch 51321		Prep Basis: As Received
Batch ID: 51323	Method: EPA Method 1668A	
Run Date: 11/10/2022 13:23	Analyst: MLL	Instrument: HRP875
Data File: d08nov22a_5-2		Dilution: 1
Prep Batch: 51321	Prep Method: SW846 3520C	Prep SOP Ref: CF-OA-E-001
Prep Date: 02-NOV-22	Prep Aliquot: 1000 mL	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
Surrogate/Tracer recovery						
		Qual	Result	Nominal	Units	Recovery%
						Acceptable Limits
13C-123-PeCB			880	2000	pg/L	44.0 (30%-140%)
13C-126-PeCB			857	2000	pg/L	42.9 (30%-140%)
13C-155-HxCB			763	2000	pg/L	38.2 (30%-140%)
13C-156-HxCB		C	1650	4000	pg/L	41.2 (30%-140%)
13C-157-HxCB		C156L				
13C-167-HxCB			837	2000	pg/L	41.8 (30%-140%)
13C-169-HxCB			835	2000	pg/L	41.8 (30%-140%)
13C-188-HpCB			795	2000	pg/L	39.7 (30%-140%)
13C-189-HpCB			817	2000	pg/L	40.8 (30%-140%)
13C-202-OcCB			781	2000	pg/L	39.0 (30%-140%)
13C-205-OcCB			953	2000	pg/L	47.6 (30%-140%)
13C-206-NoCB			929	2000	pg/L	46.5 (30%-140%)
13C-208-NoCB			811	2000	pg/L	40.6 (30%-140%)
13C-209-DeCB			920	2000	pg/L	46.0 (30%-140%)
13C-28-TrCB			1100	2000	pg/L	54.9 (40%-125%)
13C-111-PeCB			1220	2000	pg/L	61.1 (40%-125%)
13C-178-HpCB			1270	2000	pg/L	63.3 (40%-125%)

Comments:

- C** Congener has coeluters. When Cxxx, refer to congener number xxx for data
U Analyte was analyzed for, but not detected above the specified detection limit.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2210315

23-Nov-22

Client: AMAFCA
Project: CMC Wet FY23

Sample ID: MB-70825	SampType: MBLK	TestCode: EPA Method 1664B								
Client ID: PBW	Batch ID: 70825	RunNo: 91919								
Prep Date: 10/14/2022	Analysis Date: 10/18/2022	SeqNo: 3297147	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	ND	10.0								

Sample ID: LCS-70825	SampType: LCS	TestCode: EPA Method 1664B								
Client ID: LCSW	Batch ID: 70825	RunNo: 91919								
Prep Date: 10/14/2022	Analysis Date: 10/18/2022	SeqNo: 3297148	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	37.8	10.0	40.00	0	94.5	78	114			

Sample ID: LCSD-70825	SampType: LCSD	TestCode: EPA Method 1664B								
Client ID: LCSS02	Batch ID: 70825	RunNo: 91919								
Prep Date: 10/14/2022	Analysis Date: 10/18/2022	SeqNo: 3297149	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	37.4	10.0	40.00	0	93.5	78	114	1.06	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Above Quantitation Range/Estimated Value |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Limit |
| S % Recovery outside of standard limits. If undiluted results may be estimated. | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2210315

23-Nov-22

Client: AMAFCA
Project: CMC Wet FY23

Sample ID: MB-70811	SampType: MBLK	TestCode: EPA Method 200.7: Metals								
Client ID: PBW	Batch ID: 70811	RunNo: 91819								
Prep Date: 10/13/2022	Analysis Date: 10/14/2022	SeqNo: 3291906	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								

Sample ID: LCSLL-70811	SampType: LCSLL	TestCode: EPA Method 200.7: Metals								
Client ID: BatchQC	Batch ID: 70811	RunNo: 91819								
Prep Date: 10/13/2022	Analysis Date: 10/14/2022	SeqNo: 3291907	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0	0.5000	0	103	50	150			
Magnesium	ND	1.0	0.5000	0	104	50	150			

Sample ID: LCS-70811	SampType: LCS	TestCode: EPA Method 200.7: Metals								
Client ID: LCSW	Batch ID: 70811	RunNo: 91819								
Prep Date: 10/13/2022	Analysis Date: 10/14/2022	SeqNo: 3291908	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	51	1.0	50.00	0	102	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Above Quantitation Range/Estimated Value |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Limit |
| S % Recovery outside of standard limits. If undiluted results may be estimated. | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2210315

23-Nov-22

Client: AMAFCA
Project: CMC Wet FY23

Sample ID: MB	SampType: MBLK	TestCode: EPA 200.8: Dissolved Metals								
Client ID: PBW	Batch ID: A91883	RunNo: 91883								
Prep Date:	Analysis Date: 10/18/2022	SeqNo: 3295065			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0010								
Lead	ND	0.00050								

Sample ID: LCSLL	SampType: LCSLL	TestCode: EPA 200.8: Dissolved Metals								
Client ID: BatchQC	Batch ID: A91883	RunNo: 91883								
Prep Date:	Analysis Date: 10/18/2022	SeqNo: 3295066			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0010	0.0010	0.001000	0	101	50	150			
Lead	0.00052	0.00050	0.0005000	0	105	50	150			

Sample ID: LCS	SampType: LCS	TestCode: EPA 200.8: Dissolved Metals								
Client ID: LCSW	Batch ID: A91883	RunNo: 91883								
Prep Date:	Analysis Date: 10/18/2022	SeqNo: 3295067			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.025	0.0010	0.02500	0	98.9	85	115			
Lead	0.012	0.00050	0.01250	0	97.4	85	115			

Sample ID: 2210315-002NMSLL	SampType: MS	TestCode: EPA 200.8: Dissolved Metals								
Client ID: R6 South-20221006	Batch ID: A91883	RunNo: 91883								
Prep Date:	Analysis Date: 10/18/2022	SeqNo: 3295096			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.026	0.0010	0.02500	0.0007151	102	70	130			
Lead	0.013	0.00050	0.01250	0.0007696	107	70	130			

Sample ID: 2210315-002NMSDL	SampType: MSD	TestCode: EPA 200.8: Dissolved Metals								
Client ID: R6 South-20221006	Batch ID: A91883	RunNo: 91883								
Prep Date:	Analysis Date: 10/18/2022	SeqNo: 3295097			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.026	0.0010	0.02500	0.0007151	101	70	130	0.371	20	
Lead	0.013	0.00050	0.01250	0.0007696	105	70	130	1.82	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2210315

23-Nov-22

Client: AMAFCA
Project: CMC Wet FY23

Sample ID: MB	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBW	Batch ID: A91618	RunNo: 91618								
Prep Date:	Analysis Date: 10/6/2022	SeqNo: 3282485			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								

Sample ID: LCS	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSW	Batch ID: A91618	RunNo: 91618								
Prep Date:	Analysis Date: 10/6/2022	SeqNo: 3282486			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	0.94	0.10	1.000	0	93.8	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	98.8	90	110			

Sample ID: 2210315-001EMS	SampType: MS	TestCode: EPA Method 300.0: Anions								
Client ID: R6 North-20221005	Batch ID: A91618	RunNo: 91618								
Prep Date:	Analysis Date: 10/7/2022	SeqNo: 3282497			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	4.7	0.50	5.000	0	94.4	83.4	110			
Nitrogen, Nitrate (As N)	13	0.50	12.50	0.1075	99.8	89.5	113			

Sample ID: 2210315-001EMSD	SampType: MSD	TestCode: EPA Method 300.0: Anions								
Client ID: R6 North-20221005	Batch ID: A91618	RunNo: 91618								
Prep Date:	Analysis Date: 10/7/2022	SeqNo: 3282498			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	4.7	0.50	5.000	0	93.8	83.4	110	0.691	20	
Nitrogen, Nitrate (As N)	12	0.50	12.50	0.1075	98.8	89.5	113	0.995	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2210315

23-Nov-22

Client: AMAFCA
Project: CMC Wet FY23

Sample ID: MB-70767	SampType: MBLK		TestCode: EPA Method 8081: PESTICIDES							
Client ID: PBW	Batch ID: 70767		RunNo: 91851							
Prep Date: 10/12/2022	Analysis Date: 10/17/2022		SeqNo: 3294644	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dieldrin	ND	0.10								
Surr: Decachlorobiphenyl	2.5		2.500		101	40.9	111			
Surr: Tetrachloro-m-xylene	2.0		2.500		79.4	15	107			

Sample ID: MB-70767	SampType: MBLK		TestCode: EPA Method 8081: PESTICIDES							
Client ID: PBW	Batch ID: 70767		RunNo: 91851							
Prep Date: 10/12/2022	Analysis Date: 10/17/2022		SeqNo: 3294646	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dieldrin	ND	0.10								
Surr: Decachlorobiphenyl	2.5		2.500		102	40.9	111			
Surr: Tetrachloro-m-xylene	2.0		2.500		80.9	15	107			

Sample ID: LCS-70767	SampType: LCS		TestCode: EPA Method 8081: PESTICIDES							
Client ID: LCSW	Batch ID: 70767		RunNo: 91851							
Prep Date: 10/12/2022	Analysis Date: 10/17/2022		SeqNo: 3294647	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dieldrin	0.43	0.10	0.5000	0	86.2	56.3	121			
Surr: Decachlorobiphenyl	2.4		2.500		95.2	40.9	111			
Surr: Tetrachloro-m-xylene	2.0		2.500		78.6	15	107			

Sample ID: LCS-70767	SampType: LCS		TestCode: EPA Method 8081: PESTICIDES							
Client ID: LCSW	Batch ID: 70767		RunNo: 91851							
Prep Date: 10/12/2022	Analysis Date: 10/17/2022		SeqNo: 3294648	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dieldrin	0.44	0.10	0.5000	0	87.9	56.3	121			
Surr: Decachlorobiphenyl	2.4		2.500		95.7	40.9	111			
Surr: Tetrachloro-m-xylene	2.0		2.500		79.7	15	107			

Sample ID: LCSD-70767	SampType: LCSD		TestCode: EPA Method 8081: PESTICIDES							
Client ID: LCSS02	Batch ID: 70767		RunNo: 91851							
Prep Date: 10/12/2022	Analysis Date: 10/17/2022		SeqNo: 3294649	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dieldrin	0.42	0.10	0.5000	0	84.6	56.3	121	1.91	20	
Surr: Decachlorobiphenyl	2.3		2.500		90.9	40.9	111	0	20	
Surr: Tetrachloro-m-xylene	1.8		2.500		73.5	15	107	0	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2210315

23-Nov-22

Client: AMAFCA
Project: CMC Wet FY23

Sample ID: LCSD-70767	SampType: LCSD		TestCode: EPA Method 8081: PESTICIDES							
Client ID: LCSS02	Batch ID: 70767		RunNo: 91851							
Prep Date: 10/12/2022	Analysis Date: 10/17/2022		SeqNo: 3294650		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dieldrin	0.43	0.10	0.5000	0	86.1	56.3	121	2.00	20	
Surr: Decachlorobiphenyl	2.3		2.500		91.5	40.9	111	0	20	
Surr: Tetrachloro-m-xylene	1.8		2.500		73.9	15	107	0	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Above Quantitation Range/Estimated Value |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Limit |
| S % Recovery outside of standard limits. If undiluted results may be estimated. | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2210315

23-Nov-22

Client: AMAFCA
Project: CMC Wet FY23

Sample ID: MB-70671	SampType: MBLK	TestCode: SM 9223B Fecal Indicator: E. coli MPN								
Client ID: PBW	Batch ID: 70671	RunNo: 91638								
Prep Date: 10/6/2022	Analysis Date: 10/7/2022	SeqNo: 3283469	Units: MPN/100mL							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
E. Coli	<1	1.000								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2210315

23-Nov-22

Client: AMAFCA
Project: CMC Wet FY23

Sample ID: MB	SampType: MBLK	TestCode: SM 4500 NH3: Ammonia								
Client ID: PBW	Batch ID: R91993	RunNo: 91993								
Prep Date:	Analysis Date: 10/21/2022	SeqNo: 3300449	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.0								

Sample ID: LCS	SampType: LCS	TestCode: SM 4500 NH3: Ammonia								
Client ID: LCSW	Batch ID: R91993	RunNo: 91993								
Prep Date:	Analysis Date: 10/21/2022	SeqNo: 3300450	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	9.8	1.0	10.00	0	98.0	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Above Quantitation Range/Estimated Value |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Limit |
| S % Recovery outside of standard limits. If undiluted results may be estimated. | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2210315

23-Nov-22

Client: AMAFCA
Project: CMC Wet FY23

Sample ID: MB-71023	SampType: MBLK	TestCode: EPA Method 365.1: Total Phosphorous								
Client ID: PBW	Batch ID: 71023	RunNo: 92060								
Prep Date: 10/24/2022	Analysis Date: 10/25/2022	SeqNo: 3303642	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Total (As P)	ND	0.050								

Sample ID: LCS-71023	SampType: LCS	TestCode: EPA Method 365.1: Total Phosphorous								
Client ID: LCSW	Batch ID: 71023	RunNo: 92060								
Prep Date: 10/24/2022	Analysis Date: 10/25/2022	SeqNo: 3303643	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Total (As P)	0.24	0.050	0.2500	0	96.9	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Above Quantitation Range/Estimated Value |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Limit |
| S % Recovery outside of standard limits. If undiluted results may be estimated. | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2210315

23-Nov-22

Client: AMAFCA
Project: CMC Wet FY23

Sample ID: MB-70696	SampType: MBLK	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: PBW	Batch ID: 70696	RunNo: 91714								
Prep Date: 10/10/2022	Analysis Date: 10/12/2022	SeqNo: 3286928	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: LCS-70696	SampType: LCS	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: LCSW	Batch ID: 70696	RunNo: 91714								
Prep Date: 10/10/2022	Analysis Date: 10/12/2022	SeqNo: 3286929	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1050	20.0	1000	0	105	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2210315

23-Nov-22

Client: AMAFCA
Project: CMC Wet FY23

Sample ID: MB-70981	SampType: MBLK	TestCode: SM 4500 Norg C: TKN								
Client ID: PBW	Batch ID: 70981	RunNo: 92019								
Prep Date: 10/21/2022	Analysis Date: 10/24/2022	SeqNo: 3301880	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	ND	1.0								

Sample ID: LCS-70981	SampType: LCS	TestCode: SM 4500 Norg C: TKN								
Client ID: LCSW	Batch ID: 70981	RunNo: 92019								
Prep Date: 10/21/2022	Analysis Date: 10/24/2022	SeqNo: 3301881	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	10	1.0	10.00	0	101	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2210315

23-Nov-22

Client: AMAFCA
Project: CMC Wet FY23

Sample ID: MB-70679	SampType: MBLK	TestCode: SM 2540D: TSS								
Client ID: PBW	Batch ID: 70679	RunNo: 91686								
Prep Date: 10/7/2022	Analysis Date: 10/10/2022	SeqNo: 3285851	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Suspended Solids	ND	4.0								

Sample ID: LCS-70679	SampType: LCS	TestCode: SM 2540D: TSS								
Client ID: LCSW	Batch ID: 70679	RunNo: 91686								
Prep Date: 10/7/2022	Analysis Date: 10/10/2022	SeqNo: 3285852	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Suspended Solids	89	4.0	91.90	0	96.8	83.89	119.7			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Above Quantitation Range/Estimated Value |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Limit |
| S % Recovery outside of standard limits. If undiluted results may be estimated. | |

Sample Log-In Check List

Client Name: AMAFCA

Work Order Number: 2210315

RcptNo: 1

Received By: Joseph Alderette 10/6/2022 10:25:00 AM

Completed By: Sean Livingston 10/6/2022 11:10:53 AM

Reviewed By: SO 10/6/22

JA
Sean Livingston

Chain of Custody

1. Is Chain of Custody complete? Yes No Not Present
2. How was the sample delivered? Client

Log In

3. Was an attempt made to cool the samples? Yes No NA
4. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
5. Sample(s) in proper container(s)? Yes No
6. Sufficient sample volume for indicated test(s)? Yes No
7. Are samples (except VOA and ONG) properly preserved? Yes No
8. Was preservative added to bottles? Yes No NA
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes No NA
10. Were any sample containers received broken? Yes No
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes No
12. Are matrices correctly identified on Chain of Custody? Yes No
13. Is it clear what analyses were requested? Yes No
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes No

of preserved bottles checked for pH: 14
 (<2 or >12 unless noted)
 Adjusted? NO
 Checked by: KPA 10.6.22

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

16. Additional remarks: NO BOD BOTTLES. NO E COLI BOTTLE FOR RG NORTH TO 10.7.22

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.9	Good				

note - BOD bottles not provided to lab for these samples. E. coli for Rio Grande North sample and results provided in previous lab report.

Chain-of-Custody Record

Client: AMAFCA

Mailing Address:

Phone #:

email or Fax#: pchavez@AMAFCA.org

QA/QC Package:

Standard Level 4 (Full Validation)

Accreditation: Az Compliance

NELAC Other

EDD (Type)

Turn-Around Time:

Standard Rush

Project Name:

CMC Wet FY23

Project #:

Project Manager:

Patrick Chavez

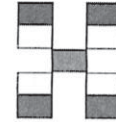
Sampler: Chad Johannesen

On Ice: Yes No

of Coolers: 2

Cooler Temp (including CF): 4.8 + 0.1 = 4.9 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
10/5/22	12:15	AQ	R6North-20221005			001
10/6/22	09:05	AQ	R6South-20221006			002
			see below			



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
									See Attached
									Sheet
									Ecoli-environmental
									X
									X

Date: 10/6/22 Time: 10:25 Relinquished by: SAM FIRE [Signature]

Received by: [Signature] Via: CDU Date: 10-6-22 Time: 10:25

Remarks: Second Cooler temp 13.3 + 0.1 = 13.4 °C / 10-6-22

Date: _____ Time: _____ Relinquished by: _____

Received by: _____ Via: _____ Date: _____ Time: _____

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Collaborative Monitoring Cooperative - Analyses List
Attach to Chain of Custody

Please refer to attached NPDES Permit No. NMR04A00 Appendix F. Methods and minimum quantification levels (MDL's) will be those approved under 40 CFR 136 and specified in the attached permit

Analyte (Bold Indicates WQS)	CAS #	Fraction	Method #	MDL (µg/L)
Hardness (Ca + Mg)	NA	Total	200.7	2.4
Lead	7439-92-1	Dissolved	200.8	0.09
Copper	7440-50-8	Dissolved	200.8	1.06
Ammonia + organic nitrogen	7664-41-7	Total	350.1	31.32
Total Kjehldal Nitrogen	17778-88-0	Total	351.2	58.78
Nitrate + Nitrite	14797-55-8	Total	353.2	10.17
Polychlorinated biphenyls (PCBs)	1336-36-3	Total	1668	0.014
Tetrahydrofuran (THF)	109-99-9	Total	8260C	7.9
bis(2-Ethylhexyl)phthalate	117-81-7	Total	8270D	0.2
Dibenzofuran	132-64-9	Total	8270D	0.2
Indeno(1,2,3-cd)pyrene	193-39-5	Total	8270D	0.2
Benzo(b)fluoranthene	205-99-2	Total	8270D	0.1
Benzo(k)fluoranthene	207-08-9	Total	8270D	0.1
Chrysene	218-01-9	Total	8270D	0.2
Benzo(a)pyrene	50-32-8	Total	8270D	0.3
Dibenzo(a,h)anthracene	53-70-3	Total	8270D	0.2
Benzo(a)anthracene	56-55-3	Total	8270D	0.1
Dieldrin	60-57-1	Total	8081	0.2
Pentachlorophenol	87-86-5	Total	8270D	0.1
Benzidine	92-87-5	Total	8270D	0.2
Chemical Oxygen Demand	E1641638 ²	Total	HACH	5100
Gross alpha (adjusted)	NA	Total	Method 900	0.1 pCi/L
Total Dissolved Solids	E1642222 ²	Total	SM 2540C	60.4
Total Suspended Solids	NA	Total	SM 2540D	3450
Biological Oxygen Demand	N/A	Total	Standard Methods	930
Oil and Grease		Total	1664A	5000
Ecoli-enumeration			SM 9223B	
pH			SM 4500	
Phosphorus		Dissolved	365.1	100
Phosphorus		Total	365.1	100
Chromium IV		Total	3500Cr C-2011	100

ATTACHMENT 2
**FY 2023 WET SEASON COMPLETED DATA VERIFICATION AND
VALIDATION (V&V) FORMS**

Attachment 1.1 Water Quality Sample Data Verification and Validation Worksheet

Study Name: Compliance Monitoring Cooperative (CMC)

Year: FY 2023 (October 2022 – Wet Season Sample)

Project Coordinator: For Data Review and Reporting – SJG, BHI

V&V Reviewer: SJG

Data covered by this worksheet: Rio Grande North – 10/5/2022

Version of Verification/Validation Procedures: QAPP –AMAFCA SOP #5 (7/2022)

Step 1: Verify Field Data

A. Are all Field Data forms present and complete? Yes No

If yes, proceed; if no, attempt to locate missing forms, then indicate any remaining missing forms and action taken.

Missing Field Data Forms	Action Taken
_____	_____
_____	_____

Total number of occurrences: 0

B. Are station name and ID, and sampling date and time on forms consistent with database? Yes No

If yes, proceed; if no, indicate errors identified, correct errors in database and re-verify.

Station and Parameter	Action Taken	Re-verified?
_____	_____	_____
_____	_____	_____

Total number of occurrences: 0

C. Are field data on forms consistent with database? Yes No

If yes, proceed; if no, indicate errors identified, correct errors in database and re-verify.

Station	Sampling Date	Parameter(s) Corrected	Re-verified?
_____	_____	_____	_____
_____	_____	_____	_____

Total number of occurrences: 0

D. Are RIDs correct and associated with the correct analytical suite, media subdivision (e.g. surface water, municipal waste, etc.) and activity type (e.g. Field observation, Routine sample, QA sample etc.)?

Yes No

If yes, proceed; if no, indicate errors identified, correct errors in database and re-verify

Station/RID	Sampling Date	RID Corrected	Re-verified?

Total number of occurrences: 0

Step 1 Completed *Initials: SJG Date: 12/14/22*

Step 2: Verify Data Deliverables

A. Have all data in question been delivered? Yes No

If yes, proceed; if no, indicate RIDs with missing data (samples or blanks) or attach report with applicable RIDs highlighted. Contact data source and indicate action taken. Complete this step upon receipt of all missing data.

RID	Submittal Date	Missing Data/Parameters	Date of Initial Verification	Date Missing Data Were Received

Total number of occurrences: 0

B. Do all of the analytical suites have the correct number and type of analytes. Yes No

If yes, proceed; if no, indicate RIDs with missing or incorrect analyte(s) or attach report with applicable RIDs highlighted. Contact data source and indicate action taken.

RID	Submittal Date	Missing or Incorrect Parameters	Action Taken	Re-verified?
	<u>11/30/22 emailed AMAFCA on missing parameter; BOD</u>	BOD		

	bottle not submitted for sample.			

*Note – HEAL Lab report order numbers 2210242 & 2210315.

Step 2 Completed *Initials: SJK* *Date: 12/14/22*

Step 3: Verify Flow Data

*Note – Not Applicable – no flow data provided with CMC sample collection

A. Identify incorrect or missing data on the flow calculation spreadsheet and correct errors.

Station	Sampling Date	Flow data missing or incorrect?

Total number of occurrences: 0

B. Identify incorrect or missing discharge measurements, correct errors in database and re-verify.

Station	Sampling Date	Flow data missing or incorrect?	Re-verified?

Total number of occurrences: 0

Not Applicable
 Step 3 Completed *Initials: SJK* *Date: 12/14/22*

Step 4: Verify Analytical Results for Missing Information or Questionable Results

Were any results with missing/questionable information identified? Yes No

If no, proceed; if yes, indicate results with missing information or questionable results or attach report. Contact data source and indicate action taken. Complete this step upon receipt of missing information or clarification of questionable results (clarify questionable results only, DO NOT change results without written approval (from lab or QA officer) and associated documentation).

RID	Sample Date	Missing or Questionable Information/Results	Action Taken
Rio Grande South	<u>10/5/2022</u>	Lab report lists Dissolved Phosphorous results as "Total Phosphorous" for "filtered sample".	BHI added note to the lab report.

Total number of occurrences: 1

Step 4 Completed *Initials: SJK Date: 12/14/22*

Step 5: Validate Blanks Results

Were any analytes of concern detected in blank samples? Yes No

If no, proceed; if yes, list results that need to have validation codes applied in the database save these results as an excel file and forward to QA officer or Program Manager, with a request to add appropriate validation codes to database. Complete this step after verifying that validation codes have been added to database correctly.

RID	Sample Date	Parameter	[Blank]	[Sample]	Validation Code/Flag Applied	Code/Flag verified in database? *

*See validation procedures to determine which associated data need to be flagged and include on *Validation Codes Form*.

Total number of occurrences: 0

Step 5 Completed *Initials: SJK Date: 12/14/22*

Step 6: Validate Holding Times Violations

Were any samples submitted that did not meet specified holding times? Yes No

If no, proceed; if yes, list results that need to have validation codes applied in the database save these results as an excel file and forward to QA officer or Program Manager with a request to add appropriate validation codes to database. Complete this step after verifying that validation codes/flags have been added to database.

RID	Sample Date	Parameter	[Blank]	[Sample]	Validation Code/Flag Applied	Code/Flag verified in database to ALL associated data?*

--	--	--	--	--	--	--

*See validation procedures to determine which associated data need to be flagged.
 *Note – Lab reports lists pH with hold time flag. Database uses field data reported pH, so this is hold time is not applicable.

Total number of occurrences: 0

Step 6 Completed *Initials: SJK* *Date: 12/14/22*

Step 7: Validate Replicate/Duplicate Results (if applicable)

Were any replicate/duplicate pairs submitted outside of the established control limit of 20%?

Yes No

If no, proceed; if yes, list results that need to have validation codes applied in the database save these results as an excel file and forward to QA officer or Program Manager with a request to add appropriate validation codes to database. Complete this step after verifying that validation codes/flags have been added to database.

RID Pairs	Replicate or Duplicate?	Sample Date	Parameter	RPD	Validation Code/Flag Applied	Code/Flag verified in database applied?*

Total number of occurrences: 0

Step 7 Completed *Initials: SJK* *Date: 12/14/22*

After all of the above steps have been completed, save and print the worksheet, attach all applicable supplemental information and sign below.

I acknowledge that the data verification and validation process has been completed for the data identified above in accordance with the procedures described in the CMC QAPP, SOP #2



12/14/22

 Data Verifier/Validator Signature

 Date

COMPLETION OF DATA VERIFICATION AND VALIDATION PROCESS

Once the data verification and validation process has been completed for the entire study (note: if the worksheet is for a subset of the data from a study, be sure ALL the data for the entire study is included before final completion of the data verification and validation process), notify the NMSQUID administrator that the process is complete and request that "V V in STORET" be added to the project title.

Once all data have been verified and validated for a study provide copies of ALL *Data Verification and Validation Worksheets* and attachments associated with the study to the Quality Assurance Officer and retain originals in the project binder.

Attachment 1.2 SWQB Validation Codes

When deficiencies are identified through the data verification and validation process, AMAFCA documents or “flags” the deficiencies by assigning validation codes. All data collected from the last compliant QC sample and up to the next compliant QC sample are assigned validation codes. The validation code alerts the data user that the results are outside QA control limits and may require re-sampling or a separate, qualitative analysis based on professional judgment.

Validation Code	Definition	WQX Equivalent
A1	Sample not collected according to SOP	
B1	Chemical was detected in the field blank at a concentration less than 5% of the sample concentration.	
BN	Blanks NOT collected during sampling run	
BU	Detection in blank. Analyte was not detected in this sample above the method's sample detection limit.	BU
RB1	Chemical was detected in the field blank at a concentration greater than or equal to 5% of the sample concentration. Results for this sample are rejected because they may be the result of contamination; the results may not be reported or used for regulatory compliance purposes.	B
R1	Rejected due to incorrect sample preservation	R
R2	Rejected due to equipment failure in the field	R
R3	Rejected based on best professional judgment	R
D1	Spike recovery not within method acceptance limits	
F1	Sample filter time exceeded	
J1	Estimated: the analyte was positively identified and the associated value is an approximate concentration of the analyte in the sample	J
K1	Holding time violation	H
Ea	Estimated-Incubation temperature between 35.5 and 38.0° Celsius	
Er	Rejected-Incubation temperature < 34.5 or >38.0° Celsius	
PD1	Percent difference between duplicate samples excessive	
S1	Per SLD, uncertainties (sigmas) are expressed as one standard deviation, i.e. one standard error. Small negative or positive values that are less than two standard deviations should be interpreted as “less than the detection limit.”	
S2	Data are suspect but deemed usable based on best professional judgment; documentation of justification is required and should be included in the Data Verification and Validation Packet and reported with results	
Z1	Macroinvertebrate data did not meet QC criteria specified in Section 2.5 of QAPP	
H1	Habitat data did not meet QC criteria specified in Section 2.5 of QAPP	

Attachment 1.1 Water Quality Sample Data Verification and Validation Worksheet

Study Name: Compliance Monitoring Cooperative (CMC)

Year: FY 2023 (October 2022 – Wet Season Sample)

Project Coordinator: For Data Review and Reporting – SJG, BHI

V&V Reviewer: SJG

Data covered by this worksheet: Alameda – 10/5/2022– E. coli Only Sample

Version of Verification/Validation Procedures: QAPP –AMAFCA SOP #5 (7/2022)

Step 1: Verify Field Data

A. Are all Field Data forms present and complete? Yes No

If yes, proceed; if no, attempt to locate missing forms, then indicate any remaining missing forms and action taken.

Missing Field Data Forms	Action Taken
_____	_____
_____	_____

Total number of occurrences: 0

B. Are station name and ID, and sampling date and time on forms consistent with database? Yes No

If yes, proceed; if no, indicate errors identified, correct errors in database and re-verify.

Station and Parameter	Action Taken	Re-verified?
_____	_____	_____
_____	_____	_____

Total number of occurrences: 0

C. Are field data on forms consistent with database? Yes No

If yes, proceed; if no, indicate errors identified, correct errors in database and re-verify.

Station	Sampling Date	Parameter(s) Corrected	Re-verified?
_____	_____	_____	_____
_____	_____	_____	_____

Total number of occurrences: 0

D. Are RIDs correct and associated with the correct analytical suite, media subdivision (e.g. surface water, municipal waste, etc.) and activity type (e.g. Field observation, Routine sample, QA sample etc.)?

Yes No

If yes, proceed; if no, indicate errors identified, correct errors in database and re-verify

Station/RID	Sampling Date	RID Corrected	Re-verified?

Total number of occurrences: 0

Step 1 Completed Initials: SJG Date: 12/7/22

Step 2: Verify Data Deliverables

A. Have all data in question been delivered? Yes No

If yes, proceed; if no, indicate RIDs with missing data (samples or blanks) or attach report with applicable RIDs highlighted. Contact data source and indicate action taken. Complete this step upon receipt of all missing data.

RID	Submittal Date	Missing Data/Parameters	Date of Initial Verification	Date Missing Data Were Received

Total number of occurrences: 0

B. Do all of the analytical suites have the correct number and type of analytes. Yes No

If yes, proceed; if no, indicate RIDs with missing or incorrect analyte(s) or attach report with applicable RIDs highlighted. Contact data source and indicate action taken.

RID	Submittal Date	Missing or Incorrect Parameters	Action Taken	Re-verified?

Step 2 Completed Initials: SJG Date: 12/7/22

Step 3: Verify Flow Data

*Note – Not Applicable – no flow data provided with CMC sample collection

A. Identify incorrect or missing data on the flow calculation spreadsheet and correct errors.

Station	Sampling Date	Flow data missing or incorrect?
_____	_____	_____
_____	_____	_____

Total number of occurrences: 0

B. Identify incorrect or missing discharge measurements, correct errors in database and re-verify.

Station	Sampling Date	Flow data missing or incorrect?	Re-verified?
_____	_____	_____	_____
_____	_____	_____	_____

Total number of occurrences: 0

Not Applicable
 Step 3 Completed *Initials: SJJ Date: 12/7/22*

Step 4: Verify Analytical Results for Missing Information or Questionable Results

Were any results with missing/questionable information identified? Yes No

If no, proceed; if yes, indicate results with missing information or questionable results or attach report. Contact data source and indicate action taken. Complete this step upon receipt of missing information or clarification of questionable results (clarify questionable results only, DO NOT change results without written approval (from lab or QA officer) and associated documentation).

RID	Sample Date	Missing or Questionable Information/Results	Action Taken
_____	_____	_____	_____

Total number of occurrences: 0

Step 4 Completed *Initials: SJJ Date: 12/7/22*

Step 5: Validate Blanks Results

Were any analytes of concern detected in blank samples? Yes No

If no, proceed; if yes, list results that need to have validation codes applied in the database save these results as an excel file and forward to QA officer or Program Manager, with a request to add appropriate validation codes to database. Complete this step after verifying that validation codes have been added to database correctly.

RID	Sample Date	Parameter	[Blank]	[Sample]	Validation Code/Flag Applied	Code/Flag verified in database? *

*See validation procedures to determine which associated data need to be flagged and include on *Validation Codes Form*.

Total number of occurrences: 0

Step 5 Completed Initials: SJG Date: 12/7/22

Step 6: Validate Holding Times Violations

Were any samples submitted that did not meet specified holding times? Yes No

If no, proceed; if yes, list results that need to have validation codes applied in the database save these results as an excel file and forward to QA officer or Program Manager with a request to add appropriate validation codes to database. Complete this step after verifying that validation codes/flags have been added to database.

RID	Sample Date	Parameter	[Blank]	[Sample]	Validation Code/Flag Applied	Code/Flag verified in database to ALL associated data?*

*See validation procedures to determine which associated data need to be flagged.

Total number of occurrences: 0

Step 6 Completed Initials: SJG Date: 12/7/22

Step 7: Validate Replicate/Duplicate Results (if applicable)

Were any replicate/duplicate pairs submitted outside of the established control limit of 20%?

Yes No

If no, proceed; if yes, list results that need to have validation codes applied in the database save these results as an excel file and forward to QA officer or Program Manager with a request to add appropriate validation codes to database. Complete this step after verifying that validation codes/flags have been added to database.

RID Pairs	Replicate or Duplicate?	Sample Date	Parameter	RPD	Validation Code/Flag Applied	Code/Flag verified in database applied?*

Total number of occurrences: 0

Step 7 Completed Initials: SJG Date: 12/7/22

After all of the above steps have been completed, save and print the worksheet, attach all applicable supplemental information and sign below.

I acknowledge that the data verification and validation process has been completed for the data identified above in accordance with the procedures described in the CMC QAPP, SOP #2



12/7/22

 Data Verifier/Validator Signature

 Date

COMPLETION OF DATA VERIFICATION AND VALIDATION PROCESS

Once the data verification and validation process has been completed for the entire study (note: if the worksheet is for a subset of the data from a study, be sure ALL the data for the entire study is included before final completion of the data verification and validation process), notify the NMSQUID administrator that the process is complete and request that "V V in STORET" be added to the project title.

Once all data have been verified and validated for a study provide copies of ALL *Data Verification and Validation Worksheets* and attachments associated with the study to the Quality Assurance Officer and retain originals in the project binder.

Attachment 1.2 SWQB Validation Codes

When deficiencies are identified through the data verification and validation process, AMAFCA documents or “flags” the deficiencies by assigning validation codes. All data collected from the last compliant QC sample and up to the next compliant QC sample are assigned validation codes. The validation code alerts the data user that the results are outside QA control limits and may require re-sampling or a separate, qualitative analysis based on professional judgment.

Validation Code	Definition	WQX Equivalent
A1	Sample not collected according to SOP	
B1	Chemical was detected in the field blank at a concentration less than 5% of the sample concentration.	
BN	Blanks NOT collected during sampling run	
BU	Detection in blank. Analyte was not detected in this sample above the method's sample detection limit.	BU
RB1	Chemical was detected in the field blank at a concentration greater than or equal to 5% of the sample concentration. Results for this sample are rejected because they may be the result of contamination; the results may not be reported or used for regulatory compliance purposes.	B
R1	Rejected due to incorrect sample preservation	R
R2	Rejected due to equipment failure in the field	R
R3	Rejected based on best professional judgment	R
D1	Spike recovery not within method acceptance limits	
F1	Sample filter time exceeded	
J1	Estimated: the analyte was positively identified and the associated value is an approximate concentration of the analyte in the sample	J
K1	Holding time violation	H
Ea	Estimated-Incubation temperature between 35.5 and 38.0° Celsius	
Er	Rejected-Incubation temperature < 34.5 or >38.0° Celsius	
PD1	Percent difference between duplicate samples excessive	
S1	Per SLD, uncertainties (sigmas) are expressed as one standard deviation, i.e. one standard error. Small negative or positive values that are less than two standard deviations should be interpreted as “less than the detection limit.”	
S2	Data are suspect but deemed usable based on best professional judgment; documentation of justification is required and should be included in the Data Verification and Validation Packet and reported with results	
Z1	Macroinvertebrate data did not meet QC criteria specified in Section 2.5 of QAPP	
H1	Habitat data did not meet QC criteria specified in Section 2.5 of QAPP	

Attachment 1.1 Water Quality Sample Data Verification and Validation Worksheet

Study Name: Compliance Monitoring Cooperative (CMC)

Year: FY 2023 (October 2022 – Wet Season Sample) **Project Coordinator:** For Data Review and Reporting – SJG, BHI

V&V Reviewer: SJG

Data covered by this worksheet: Rio Grande South – 10/6/2022

Version of Verification/Validation Procedures: QAPP –AMAFCA SOP #5 (7/2022)

Step 1: Verify Field Data

A. Are all Field Data forms present and complete? Yes No

If yes, proceed; if no, attempt to locate missing forms, then indicate any remaining missing forms and action taken.

Missing Field Data Forms	Action Taken
_____	_____
_____	_____

Total number of occurrences: 0

B. Are station name and ID, and sampling date and time on forms consistent with database? Yes No

If yes, proceed; if no, indicate errors identified, correct errors in database and re-verify.

Station and Parameter	Action Taken	Re-verified?
_____	_____	_____
_____	_____	_____

Total number of occurrences: 0

C. Are field data on forms consistent with database? Yes No

If yes, proceed; if no, indicate errors identified, correct errors in database and re-verify.

Station	Sampling Date	Parameter(s) Corrected	Re-verified?
_____	_____	_____	_____
_____	_____	_____	_____

Total number of occurrences: 0

D. Are RIDs correct and associated with the correct analytical suite, media subdivision (e.g. surface water, municipal waste, etc.) and activity type (e.g. Field observation, Routine sample, QA sample etc.)?

Yes No

If yes, proceed; if no, indicate errors identified, correct errors in database and re-verify

Station/RID	Sampling Date	RID Corrected	Re-verified?

Total number of occurrences: 0

Step 1 Completed *Initials: SJG Date: 12/14/22*

Step 2: Verify Data Deliverables

A. Have all data in question been delivered? Yes No

If yes, proceed; if no, indicate RIDs with missing data (samples or blanks) or attach report with applicable RIDs highlighted. Contact data source and indicate action taken. Complete this step upon receipt of all missing data.

RID	Submittal Date	Missing Data/Parameters	Date of Initial Verification	Date Missing Data Were Received

Total number of occurrences: 0

B. Do all of the analytical suites have the correct number and type of analytes. Yes No

If yes, proceed; if no, indicate RIDs with missing or incorrect analyte(s) or attach report with applicable RIDs highlighted. Contact data source and indicate action taken.

RID	Submittal Date	Missing or Incorrect Parameters	Action Taken	Re-verified?
	<u>11/30/22 emailed AMAFCA on missing parameter; BOD bottle not</u>	BOD		

	<u>submitted for sample.</u>			

*Note – HEAL Lab report order number 2210315.

Step 2 Completed *Initials: SJG Date: 12/14/22*

Step 3: Verify Flow Data

*Note – Not Applicable – no flow data provided with CMC sample collection

A. Identify incorrect or missing data on the flow calculation spreadsheet and correct errors.

Station	Sampling Date	Flow data missing or incorrect?
_____	_____	_____
_____	_____	_____

Total number of occurrences: 0

B. Identify incorrect or missing discharge measurements, correct errors in database and re-verify.

Station	Sampling Date	Flow data missing or incorrect?	Re-verified?
_____	_____	_____	_____
_____	_____	_____	_____

Total number of occurrences: 0

Not Applicable
 Step 3 Completed *Initials: SJG Date: 12/14/22*

Step 4: Verify Analytical Results for Missing Information or Questionable Results

Were any results with missing/questionable information identified? Yes No

If no, proceed; if yes, indicate results with missing information or questionable results or attach report. Contact data source and indicate action taken. Complete this step upon receipt of missing information or clarification of questionable results (clarify questionable results only, DO NOT change results without written approval (from lab or QA officer) and associated documentation).

RID	Sample Date	Missing or Questionable Information/Results	Action Taken
Rio Grande South	<u>10/6/2022</u>	Lab report lists Dissolved Phosphorous results as "Total Phosphorous" for "filtered sample".	BHI added note to the lab report.

*Note – HEAL Lab report order number 2210315.

Total number of occurrences: 1

Step 4 Completed *Initials: SJG Date: 12/14/22*

Step 5: Validate Blanks Results

Were any analytes of concern detected in blank samples? Yes No

If no, proceed; if yes, list results that need to have validation codes applied in the database save these results as an excel file and forward to QA officer or Program Manager, with a request to add appropriate validation codes to database. Complete this step after verifying that validation codes have been added to database correctly.

RID	Sample Date	Parameter	[Blank]	[Sample]	Validation Code/Flag Applied	Code/Flag verified in database? *

*See validation procedures to determine which associated data need to be flagged and include on *Validation Codes Form*.

Total number of occurrences: 0

Step 5 Completed *Initials: SJG Date: 12/14/22*

Step 6: Validate Holding Times Violations

Were any samples submitted that did not meet specified holding times? Yes No

If no, proceed; if yes, list results that need to have validation codes applied in the database save these results as an excel file and forward to QA officer or Program Manager with a request to add appropriate validation codes to database. Complete this step after verifying that validation codes/flags have been added to database.

RID	Sample Date	Parameter	[Blank]	[Sample]	Validation Code/Flag Applied	Code/Flag verified in database to ALL associated data?*

*See validation procedures to determine which associated data need to be flagged.
 *Note – Lab reports lists pH with hold time flag. Database uses field data reported pH, so this is hold time is not applicable.
Total number of occurrences: 0

Step 6 Completed Initials: SJG Date: 12/14/22

Step 7: Validate Replicate/Duplicate Results (if applicable)

Were any replicate/duplicate pairs submitted outside of the established control limit of 20%?

Yes No

If no, proceed; if yes, list results that need to have validation codes applied in the database save these results as an excel file and forward to QA officer or Program Manager with a request to add appropriate validation codes to database. Complete this step after verifying that validation codes/flags have been added to database.

RID Pairs	Replicate or Duplicate?	Sample Date	Parameter	RPD	Validation Code/Flag Applied	Code/Flag verified in database applied?*

Total number of occurrences: 0

Step 7 Completed Initials: SJG Date: 12/14/22

After all of the above steps have been completed, save and print the worksheet, attach all applicable supplemental information and sign below.

I acknowledge that the data verification and validation process has been completed for the data identified above in accordance with the procedures described in the CMC QAPP, SOP #2



12/14/22

Data Verifier/Validator Signature

Date

COMPLETION OF DATA VERIFICATION AND VALIDATION PROCESS

Once the data verification and validation process has been completed for the entire study (note: if the worksheet is for a subset of the data from a study, be sure ALL the data for the entire study is included before final completion of the data verification and validation process), notify the NMSQUID administrator that the process is complete and request that "V V in STORET" be added to the project title.

Once all data have been verified and validated for a study provide copies of ALL *Data Verification and Validation Worksheets* and attachments associated with the study to the Quality Assurance Officer and retain originals in the project binder.

Attachment 1.2 SWQB Validation Codes

When deficiencies are identified through the data verification and validation process, AMAFCA documents or “flags” the deficiencies by assigning validation codes. All data collected from the last compliant QC sample and up to the next compliant QC sample are assigned validation codes. The validation code alerts the data user that the results are outside QA control limits and may require re-sampling or a separate, qualitative analysis based on professional judgment.

Validation Code	Definition	WQX Equivalent
A1	Sample not collected according to SOP	
B1	Chemical was detected in the field blank at a concentration less than 5% of the sample concentration.	
BN	Blanks NOT collected during sampling run	
BU	Detection in blank. Analyte was not detected in this sample above the method's sample detection limit.	BU
RB1	Chemical was detected in the field blank at a concentration greater than or equal to 5% of the sample concentration. Results for this sample are rejected because they may be the result of contamination; the results may not be reported or used for regulatory compliance purposes.	B
R1	Rejected due to incorrect sample preservation	R
R2	Rejected due to equipment failure in the field	R
R3	Rejected based on best professional judgment	R
D1	Spike recovery not within method acceptance limits	
F1	Sample filter time exceeded	
J1	Estimated: the analyte was positively identified and the associated value is an approximate concentration of the analyte in the sample	J
K1	Holding time violation	H
Ea	Estimated-Incubation temperature between 35.5 and 38.0° Celsius	
Er	Rejected-Incubation temperature < 34.5 or >38.0° Celsius	
PD1	Percent difference between duplicate samples excessive	
S1	Per SLD, uncertainties (sigmas) are expressed as one standard deviation, i.e. one standard error. Small negative or positive values that are less than two standard deviations should be interpreted as “less than the detection limit.”	
S2	Data are suspect but deemed usable based on best professional judgment; documentation of justification is required and should be included in the Data Verification and Validation Packet and reported with results	
Z1	Macroinvertebrate data did not meet QC criteria specified in Section 2.5 of QAPP	
H1	Habitat data did not meet QC criteria specified in Section 2.5 of QAPP	

TOWN OF BERNALILLO, NM
Stormwater Management Program Plan (SWMP)
In Compliance with Watershed Based Permit NMR04A000

Resolution No. 07-11-2022
Adopted July 11, 2022



TABLE OF CONTENTS

<u>SECTION</u>	<u>TOPIC</u>	<u>PAGE</u>
1	Introduction	4
1.1	Purpose of the Stormwater Management Plan (SWMP)	4
1.2	Notice of Intent (NOI) to Obtain Permit Coverage	4
1.3	Background	4
1.3.1	Town of Bernalillo Stormwater Facilities	5
1.3.2	Water Quality	5
1.4	Compliance with Other Laws and Regulatory Requirements	5
1.5	Legal Authority	5
2	SWMP General Components and Requirements	6
2.1	Special Conditions Requirements in the Permit	6
2.2	Control Measures	7
2.3	Water Quality Monitoring	8
2.4	SWMP Organization	8
2.5	SWMP Review Process	8
2.6	SWMP Modification Process	9
2.6.1	Permittee-Initiated Modifications	9
2.6.2	EPA-Required Modifications	9
2.6.3	Due to Modification of the MS4 Permit	10
3	SWMP Tables	10

List of Tables

- 1 MS4 Permit-Based Joint Agreements
- 2 Stormwater Management Program Plan

List of Appendices

- A NPDES Middle Rio Grande Watershed Based MS4 Permit NMR04A000
- B Town of Bernalillo Notice of Intent (NOI)
- C Town of Bernalillo Stormwater Facilities Map
- D Joint Agreements

SWMP Revisions

SWMP Plan Version and Date	Date Submitted to EPA	Reason for Revision (e.g., Modification, Annual Report Review and Update, etc.)	Notes
Revision 0 December 2016		N/A - Initial Version	Initial SWMP under Permit NMR04A000

1. Introduction

Stormwater discharges from the Town of Bernalillo are regulated under the Clean Water Act. New Mexico is one of four states that does not have primacy under the Clean Water Act. This means that U.S. Environmental Protection Agency (EPA) issues permits directly to local governments and to New Mexico businesses and construction sites. The Watershed-Based Permit for the Middle Rio Grande requires that the permittee develop, implement, and enforce a Stormwater Management Program (SWMP), with the purpose of reducing the discharge of pollutants in stormwater.

1.1 Purpose of the Stormwater Management Program (SWMP)

The Stormwater Management Program (SWMP) was developed in support of the requirements of the EPA National Pollutant Discharge Elimination System (NPDES) Middle Rio Grande Watershed Based Municipal Separate Storm Sewer System (MS4) Permit NMR04A000 (MS4 Permit). The MS4 Permit was issued and became effective on December 22, 2014 and was subsequently modified by EPA on April 9, 2015. The SWMP, according to Part I.D.1 of the MS4 Permit, shall satisfy all requirements of this Permit, and be implemented in accordance with Section 402(p)(3)(B) of the Clean Water Act (CWA) and Federal Stormwater Regulations (40 CFR § 122.26 and § 122.34). The MS4 Permit is included as Appendix A of this SWMP Plan.

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

The SWMP serves to document the Town's proposed plans and goals, implementation schedules, and assessments associated with meeting the MS4 Permit requirements. The SWMP will be revised and modified as necessary over the course of the 5-year MS4 Permit term. The initial SWMP (Revision 0) summarizes the applicable MS4 Permit requirements and describes the Town's plans and strategies to comply with the MS4 Permit requirements. The SWMP clearly defines, as applicable to the Town and as required in Part I.D.4 of the MS4 Permit, the Town's measurable goals and implementation schedule for each control measure.

1.2 Notice of Intent (NOI) to Obtain Permit Coverage

For coverage under the MS4 Permit, the Town submitted a notice of intent (NOI) as required in Part I.A.6.a to EPA Region 6 on May 11, 2015. Town of Bernalillo is classified as a Class B Permittee, as defined in Table 1 (Part I.B.1.a) of the MS4 Permit. The NOI and related correspondence is provided as Appendix B of this SWMP.

1.3 Background

The Clean Water Act (CWA) was passed in 1972 and required factories to have National Pollutant Discharge Elimination System (NPDES) permits. In 1987, the CWA required municipal separate storm sewer systems (MS4s) to have NPDES permits. The first permit was issued in 1991 to the Phase I MS4s (populations over 100,000). In the Middle Rio Grande, the Phase I entities include the City of Albuquerque (COA), Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA), the University of New Mexico (UNM), and the New Mexico Department of Transportation (NMDOT) District 3. The Phase II Small MS4 NPDES permits were issued by the EPA in 1999 and included Bernalillo County. The Watershed-Based Permit for the Middle Rio Grande is NMR04A000 and became effective on December 22, 2014.

Stormwater discharges from the Town of Bernalillo are regulated under the Clean Water Act. New Mexico is one of the few states that does not have primacy under the Clean Water Act. This means that U.S. Environmental Protection Agency (EPA) issues permits directly to local governments and to New Mexico businesses and construction sites.

The purpose of the stormwater control system operated by the Town is to prevent injury or loss of life and to eliminate or minimize property damage. SSCAFCA and ESCAFCA operate the primary stormwater control systems within the Town of Bernalillo. The SSCAFCA system is used by the Town of Bernalillo as a final conveyance of stormwater collected by the Town system to the Rio Grande. A stormwater facilities map for the Town of Bernalillo is presented in Appendix C.

This Permit was developed for MS4s within the Middle Rio Grande (MRG) Watershed that discharge stormwater to the Rio Grande. The MRG Watershed MS4 Permit provides coverage to MS4 operators located fully or partially within Bernalillo and Sandoval Counties. The Permit encourages cooperation and partnerships between all permitted MS4s in the MRG Watershed by providing incentives for collaboration and legally-binding cooperation among the various MS4s.

1.3.1 Town of Bernalillo Stormwater Facilities

The Town of Bernalillo maintains two stormwater facilities, Bosque Pond and Athena Park. Maintenance activities for these facilities occurs on a routine basis and following rain events and includes sediment, floatables, trash, and debris removal, mowing and vegetation control (tree trimming, debris removal), fence and gate repair, and erosion repair. The Town maintains and updates a list and maps of the Town storm sewer systems and all stormwater quality facilities as needed.

1.3.2 Water Quality

The Town of Bernalillo is concerned with protecting water quality for the areas surrounding the Town and is implementing Best Management Practices (BMPs) to help protect the Rio Grande from pollution.

1.4 Compliance with Other Laws and Regulatory Requirements

The NM Office of the State Engineer (OSE) and Interstate Stream Commission (ISC) regulates the water delivery to the Rio Grande in order to meet water delivery requirements to Texas and downstream water rights. Therefore, the Town's objective is to design, build and maintain its facilities to drain within 96 hours, in compliance with OSE requirements.

1.5 Legal Authority

The Town of Bernalillo has the legal authority to convey discharges entering its flood control system to the Rio Grande. The Town facilities serve to protect area residents from flood flows. These flows are conveyed to the receiving waters of the Rio Grande.

The Town of Bernalillo has the legal authority to pass ordinances and resolutions, require permits for specific activities, including development and construction activities, and can use contractual agreements with other entities for activities conducted within its jurisdiction as a means to provide legal authority related to MS4 Permit requirements.

2. SWMP General Components and Requirements

As described in Section 1.1, the Town will develop, implement and enforce a SWMP that is designed to reduce the discharge of pollutants to the maximum extent practicable, to protect water quality, and to satisfy applicable surface water quality standards. The SWMP addresses the MS4 Permit's Special Conditions (Part 1.C), contains the MS4 Permit's eight Control Measures (Part I.D.5) and addresses the applicable Monitoring and Assessment requirements in Part III of the MS4 Permit. The SWMP addresses each applicable MS4 Permit activity with a proposed plan to meet the required activity, measurable goal(s) for the proposed plan activities, an implementation schedule, and the identification of responsible Town personnel. Program development and full implementation of this SWMP is proposed over five years from the effective date of the MS4 Permit (December 22, 2014). The general SWMP components, organization, review process, and modification process are described in the sections below.

2.1 Special Conditions Requirements in the Permit

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

Compliance with Water Quality Standards (Part I.C.1) - This section of the Permit includes provisions to ensure that MS4 discharges do not cause or contribute to exceedances of applicable surface water quality standards. Under this section, there is a Dissolved Oxygen (DO) Program (Part I.C.1.d), a Polychlorinated biphenyl (PCBs) Program (Part I.C.1.e), and a Temperature Program (Part I.C.1.f). These Programs do not apply to Town of Bernalillo.

Discharges to Impaired Waters With and Without Approved Total Maximum Daily Loads (TMDLs) - This section of the Permit (Part I.C.2.b.(i)) and Tables 1.a - TMDL Bacteria Program and 1.b – TMDL Nutrient Program (Part I.C.2.b.(iii)) requires that the SWMP have controls that target the pollutants of concern identified for the impaired waters. There are specific Permit requirements if the impaired water body has a TMDL approved by EPA and NMED.

- For the Rio Grande, E. coli has been identified as an impairment and has an established TMDL. This TMDL applies to the MS4 area for the Rio Grande from
 - o Alameda to US 550 (Waterbody ID NM-2105.1_00) and
 - o the Rio Grande from Isleta Pueblo boundary to Alameda (Waterbody ID NM-2105_50).

This section of the Permit also has requirements for waters with impairments that do not yet have TMDLs.

- The Rio Grande has the following impairments in the MS4 area, without TMDLs:
 - o Rio Grande (Isleta Pueblo to US 550 - waterbody IDs NM-2105.1_00 and NM-2105_50) - DO and PCBs in Fish Tissue;
 - o Rio Grande (Alameda to US 550 - waterbody ID NM-2105.100) - PCBs in water column and GrossAlpha adjusted;
 - o Rio Grande (Isleta Pueblo to Alameda - waterbody ID NM-2105_50) - water temperature.

For the Rio Grande, there are currently no impairments for nutrients.

The 2014-2016 State of New Mexico CWA 303(d) / 305(d) Integrated List and Report identifies the Tijeras Arroyo Assessment Unit - Four Hills Bridge to headwaters as impaired for nutrients based on exceedance of Nutrient Level 2 assessment criteria. The permittees who discharge to this waterbody, including Bernalillo County, COA, and NMDOT, must address the activities and schedules related to Impairment for Nutrients in Table 1.b in Part I.C.2.b.(iii).

- o Impairments were determined using the *2014-2016 State of New Mexico Clean Water Act 303(d) / 305(b) Integrated Report, Appendix A - Final List of Assessed Surface Waters*, November 18, 2014, State of New Mexico Water Quality Control Commission (<https://www.env.nm.gov/swqb/303d-305b/2014-2016/2014-2016NMList.pdf>).

Compliance with Endangered Species Act Requirements (Part I.C.3) - This section of the Permit includes provisions consistent with the USFWS Biological Opinion (BO) related to the MRG Watershed MS4 Permit dated August 21, 2014 - Cons. #22420-2011-F-0024-R001. This section has two requirements: Dissolved Oxygen Strategy and Sediment Pollutant Load Reduction Strategy.

The Dissolved Oxygen Strategy in this section is required for all permittees. A summary of findings must be submitted with each annual report and a description of controls implemented must be included in the SWMP submitted with the 1st and 4th annual reports, Part I.C.3(a)(i).

For the Sediment Pollutant Load Reduction Strategy, The Town does not have any direct discharges to the Rio Grande. The Town will work in conjunction with SSCAFCA and ESCAFCA to monitor and quantify sediment pollutant load reduction.

2.2 Control Measures

Each applicable control measure program required in Part I.D.5 of the MS4 Permit is addressed in this SWMP. There are eight control measures which are described in general terms below and with program details in the SWMP tables in Section 3.

Construction Site Runoff Control Program (Part I.D.5.a and Table 2) - This program has controls related to the discharge of stormwater and pollutants from construction activities that result in a land disturbance of greater than or equal to one acre, including sites, which disturb less than one acre but are part of a larger common plan of development.

Post-Construction Stormwater Management Program for New Development and Redevelopment (Part I.D.5.b and Table 3) - This program addresses stormwater runoff from new development and redevelopment projects after construction site stabilization has been achieved to minimize water quality impacts.

Pollution Prevention/Good Housekeeping Program (Part I.D.5.c and Table 4) - The goal of this program is to prevent or reduce pollutant runoff from Town of Bernalillo operations through training, maintenance, and waste management.

Industrial and High Risk Runoff (Part I.D.5.d and Table 5) - This is a program to minimize the contribution of pollutants to the MS4 associated with industrial activity in the MS4. This section is only applicable to Class A permittees. As a Class B permittee, this section is not applicable to the Town of Bernalillo.

Illicit Discharges and Improper Disposal (Part I.D.5.e and Table 6) - The goal of this program is to detect and eliminate illicit discharges. The program elements also prohibit illicit dumping or disposal of materials, other than stormwater, into the MS4. The program includes a notification process and hotline, incident investigation and reporting process, procedures for testing, if necessary, an educational component, and a Town spill prevention and response plan.

Control of Floatables Discharges Program (Part I.D.5.f and Table 7) - This program is intended to address and control floatables in discharges to the MS4 through implementation of source controls and structural controls (BMPs).

Public Education and Outreach on Stormwater Impacts (Part I.D.5.g and Table 8) - This program provides education and outreach to the community related to the impact human activities have on the water quality of the Rio Grande. The Town provides public education and outreach on stormwater impacts through different media and methods, reaching wide spread target audiences, and focusing on target pollutants including pet waste, illicit discharges, and trash/debris.

Public Involvement and Participation (Part I.D.5.h and Table 9) - This program encourages public involvement and provides opportunities for participation in public outreach activities as well as in the review, modification and implementation of the SWMP.

2.3 Water Quality Monitoring

Part III.A of the MS4 Permit defines the monitoring and assessment program requirements and objectives. As applicable, three permit elements are included in the SWMP: Wet Weather Monitoring (Part 111.A.1 and Table 10), Dry Weather Discharge Screening (Part 111.A.2), and Floatables Monitoring (Part 11.A.3). Industrial and High Risk Runoff Monitoring (Part 111.A.4) does not apply to the Town.

2.4 SWMP Organization

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

Permit Activity Description - This contains the permit requirements, permit language and permit references.

Proposed Plan - This contains the Town's strategy to comply with the required permit activity. This section will identify if the Town is involved in a cooperative program for this permit element. Cooperative programs are encouraged with this MS4 Permit (Part 1.8.4). Section 3, Table A, provides a list of the current Town cooperative programs.

Measurable Goal -This contains specific actions that the Town proposes to complete to meet its Proposed Plan.

Permit Required Implementation Schedule - This contains the implementation schedules listed in the MS4 Permit for the specific Permit activity, as applicable. The Permit implementation schedules for the Town of Bernalillo are for a Cooperative Permit.

In addition, the Town will add columns annually for Status of Implementation and Performance Assessment.

2.5 SWMP Review Process

According to the requirements in Part I.D.6.a, the SWMP will undergo an annual review in conjunction with preparation of the Annual Report (required in Part 111.B). The review will include the following components:

- A discussion of progress made in SWMP implementation, including achievement of measurable goals and compliance with program elements and other MS4 Permit conditions.
- An evaluation of the effectiveness of the SWMP in complying with the MS4 Permit with respect to controlling pollutant discharges and complying with water quality standards and TMDLs. This evaluation will include identifying any necessary modifications needed for the SWMP, if applicable.

- The adequacy of staff (man hours needed and projected), funding levels, equipment, and support capabilities to fully implement the SWMP and comply with the MS4 Permit conditions.
- As required in Part 111.B, the 1st and 4th Annual Reports will include submittal of a completed SWMP revision.

2.6 SWMP Modification Process

The SWMP may be modified under the conditions described below

2.6.1 Permittee-Initiated Modifications

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

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; and

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

Expectations on the effectiveness of the proposed replacement component; and

An analysis of how the proposed replacement component is expected to achieve the goals of the component to be replaced.

2.6.2 EPA-Required Modifications

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

2.6.3 Due to Modification of the MS4 Permit

The MS4 Permit may be reopened and modified (Part V), in accordance with 40 CFR §122.62, §122.63, and §124.5. Only those portions of the SWMP specifically required as Permit conditions shall be subject to the modification requirements of 40 CFR §124.

3. SWMP Tables

The Town of Bernalillo has several cooperative elements related to this permit. Table 1 summarizes the Town's current cooperative programs which have joint agreements. Copies of the joint agreements are provided in Appendix D.

TABLE 1: MS4 Permit-Based Joint Agreements

Cooperative Program Name	SWMP Element	Cooperative Partners	Joint Agreement
MS4 Technical Advisory Group (TAG)	Various	Bernalillo County AMAFCA City of Albuquerque NMDOT District 3 UNM Sandoval County Village of Corrales City of Rio Rancho Los Ranchos de Albuquerque Kirtland Air Force Base (KAFB) Town of Bernalillo EXPO NM SSCAFCA ESCAFCA Sandia National Laboratory (DOE)	Intergovernmental Agreement
MS4 Compliance Monitoring Cooperative (CMC)	Wet Weather Monitoring	Bernalillo County AMAFCA City of Albuquerque NMDOT District 3 UNM Sandoval County Village of Corrales Los Ranchos de Albuquerque Town of Bernalillo SSCAFCA ESCAFCA	Intergovernmental Agreement

Development Review	Construction and Post-Construction Stormwater Management	Sandoval CountyESCAFCA SSCAFCA	Informal Agreement
Capacity, Management, Operations and Maintenance (CMOM)Plan	Spill Response	City of Rio RanchoSandoval County New Mexico State Police	Informal Agreement
Investigation and Resolution of Illicit Discharges	IDDE	City of Rio RanchoSandoval County New Mexico State Police	Informal Agreement
Household Hazardous Waste Collection Program	IDDE	City of Rio Rancho	Informal Agreement

As described in Section 2.4 above, Town of Bernalillo's SWMP is organized in a tabular format. The SWMP tables are provided in Table 2.

TABLE 2: SWMP Table

NOI Section	ID	Permit Activity Description	Proposed Plan	Measurable Goal
	3			
	4	Compliance with Water Quality Standards - Dissolved Oxygen & Part I.C.1.d and Endangered Species Act (ESA) Requirements - Dissolved Oxygen Strategy - Part I.C.3.a		
Not Included in NOI	5	<p>Per Part I.C.1.d and Part I.C.3.a.(ii), certain permittees shall revise the May 1, 2012 Strategy to continue taking measures to address concerns regarding discharges to the Rio Grande by implementing controls to eliminate conditions that cause or contribute to exceedances of applicable dissolved oxygen water quality standards in waters of the United States.</p> <p>The permittee shall, as part of this revised strategy, complete the following activities [activities are listed in sections below]. Activities listed are a combination of permit activities in Part I.C.1.d - Special Conditions, Compliance with Water Quality Standards, Phase I Dissolved Oxygen Program & Part I.C.3.a - Dissolved Oxygen Strategy in Receiving Waters of the Rio Grande.</p>	<p>This section of the permit is specific to COA and AMAFCA. <u>The Town of Bernalillo has no role or responsibility with regard to this section of the permit.</u></p>	Not applicable
Not Included in NOI	6	<p>Part I.C.1.d.(i) Identify (or continue identifying) structural elements, natural or man-made topographical and geographical formations, MS4</p>	<p>This section of the permit is specific to COA and AMAFCA. <u>The Town of Bernalillo has no role or responsibility with regard to this section of the permit.</u></p>	Not applicable

		operations activities, or oxygen demanding pollutants contributing to reduced dissolved oxygen in the receiving waters of the Rio Grande. Both dry and wet weather discharges shall be addressed. Assessment may be made using available data or collecting additional data.		
Not Included in NOI	7	Part I.C.1.d.(ii) Continue implementing controls, and updating/revising as necessary, to eliminate structural elements or the discharge of pollutants at levels that cause or contribute to exceedances of applicable water quality standards for dissolved oxygen in waters of the United States.	This section of the permit is specific to COA and AMAFCA. <u>The Town of Bernalillo has no role or responsibility with regard to this section of the permit.</u>	Not applicable
Not Included in NOI	8	Part I.C.1.d.(iii) Continue sampling for DO and temperature in the North Diversion Channel (NDC) Embayment until the data indicate the discharge does not exceed applicable DO water quality standards in waters of the United States. This coincides with the requirements in Part I.C.3.a.(ii)(a), the revised strategy shall include: A. A Monitoring Plan describing all procedures necessary to continue conducting continuous monitoring of DO and temperature in the NOC Embayment and at 1 location in the Rio	This section of the permit is specific to COA and AMAFCA. <u>The Town of Bernalillo has no role or responsibility with regard to this section of the permit.</u>	Not applicable

		<p>Grande downstream of the mouth of the NDC within the action area (e.g., Central Bridge).</p> <p>B. A Quality Assurance and Quality Control (QA/QC) Plan describing all standard operating procedures, quality assurance and quality control plans, maintenance and implementation schedules that will assure timely and accurate collection and reporting of water temperature, DO, oxygen saturation, and flow. The QA/QC plan should include all procedures for estimating oxygen data when any oxygen monitoring equipment fail.</p>		
Not Included in NOI	g	<p>Submit a revised strategy to FWS for consultation and to EPA for approval within a year of the effective date of the permit and progress reports with the subsequent Annual Reports. Progress reports to include:</p> <p>(a) Summary of data.</p> <p>(b) Activities undertaken to identify MS4 discharge contribution to exceedances of applicable dissolved oxygen water quality standards in waters of the United States. Including summary of findings of the assessment required in Part I.C.1.d.(i).</p> <p>(c) Conclusions drawn, including support for any determinations.</p> <p>(d) Activities undertaken to eliminate</p>	<p>This section of the permit is specific to COA and AMAFCA. <u>The Town of Bernalillo has no role or responsibility with regard to this section of the permit.</u></p>	Not applicable

		<p>MS4 discharge contribution to exceedances of applicable dissolved oxygen water quality standards in waters of the United States.</p> <p>(e) Account of stakeholder involvement in addition, to meet Part I.C.3 a.(ii)(b) requirements, an annual incidental take report must be submitted as well as all data collected (including provisional oxygen and water temperature data, and associated metadata), transferred, stored, summarized, and evaluated shall be included in the Annual Report.</p>		
Not Included in NOI	10	<p>Per Part I.C.3.a.(ii), the permittees shall ensure that actions to reduce pollutants or remedial activities selected for the NDC Embayment and its watershed are implemented such that there is a reduction in frequency and magnitude of all low oxygen stormwater discharge events that occur in the Embayment or downstream in the MRG as indicated in Table 1.c. Actions to meet the year 3 measurable goals must be taken within 2 years from the effective date of the permit. Actions to meet the year 5 measurable goals must be taken within 4 years from the effective date of the permit.</p>	<p>This section of the permit is specific to COA and AMAFCA <u>The Town of Bernalillo has no role or responsibility with regard to this section of the permit.</u></p>	Not applicable
Not Included in	11	<p>Per Part I.C.3.b, the permittees (COA and AMAFCA) shall provide:</p>	<p>This section of the permit is specific to COA and AMAFCA. The Town of Bernalillo has no</p>	Not applicable

NOI		<p>A. An Annual Incidental Take Report to EPA and the Service that includes the following information: beginning and end date of any qualifying stormwater events, DO values and water temperature in the NDC Embayment, DO values and water temperature at a downstream monitoring station in the MRG, flow rate in the NOC, mean daily flow rate in the MRG, evaluation of oxygen and temperature data as either anoxic or hypoxic using Table 2 of the BO, and estimate the number of silvery minnows taken based on Appendix A of the BO. Electronic copy of The Annual Incidental Take Report should be provided with the Annual Report required under Part 111.B no later than December 1 for the proceeding calendar year.</p>	<p><u>role or responsibility with regard to this section of the permit.</u></p>	
Not Included in NOI	12	<p>Per Part I.C.3.b, the permittees (COA and AMAFCA) shall provide: B. A summary of data and findings with each Annual Report to EPA and the FWS. All data collected (including provisional oxygen and water temperature data, and associated metadata), transferred, stored, summarized and evaluated shall be included in the Annual Report. If additional data is requested by EPA or the FWS, the COA and AMAFCA shall</p>	<p>This section of the permit is specific to COA and AMAFCA. <u>The Town of Bernalillo has no role or responsibility with regard to this section of the permit.</u></p>	Not applicable

		provide such information within two weeks upon request. The revised strategy required under Part I.C.3.a.(ii), the Annual Incidental Take Reports required under Part I.C.3 a.(ii).(b).A, and Annual Reports required under Part 111.B can be submitted to FWS via e-mail nmesfo@fws.gov and Joel lusk@fws.gov, or by mail to the New Mexico Ecological Services field office, 2105 Osuna Road NE, Albuquerque, New Mexico 87113.		
	13	Compliance with Water Quality Standards – PCBs – Part I.C.1.e		
Not Included in NOI	14	Per Part I.C.1.e, the permittee shall address concerns regarding PCBs in channel drainage areas specified in Part I.C.1.e.(vi) by developing or continue updating/revising and implementing a strategy to identify and eliminate controllable sources of PCBs that cause or contribute to exceedances of applicable water quality standards in waters of the United States.	This section of the permit is specific to COA, AMAFCA and Bernalillo County. <u>The Town of Bernalillo has no role or responsibility with regard to this section of the permit.</u>	Not applicable
Not Included in NOI	15	The progress reports shall include: (i) Summary of data. (ii) Findings regarding controllable sources of PCBs in the channel drainages area specified in Part I.C.1.e. (vi) That cause or contribute to exceedances of applicable water quality standards in waters of the	This section of the permit is specific to COA, AMAFCA and Bernalillo County. <u>The Town of Bernalillo has no role or responsibility with regard to this section of the permit.</u>	Not applicable

		<p>US via the discharge of municipal stormwater. (iii) Conclusions drawn, including supporting information for any determinations. (iv) Activities undertaken to eliminate controllable sources of PCBs in the drainage areas specified in Part I.C.1.e.(vi) that cause or contribute to exceedances of applicable water quality standards in waters of the US via the discharge of municipal stormwater including proposed activities that extend beyond the 5-year permit term. (v) Account of stakeholder involvement in the process. (vi) Channel Drainage Areas: The PCB strategy required in Part I.C.1.e is only applicable to: COA and AMAFCA Areas: San Jose Drain & North Diversion Channel Bernalillo Co. Areas: Adobe Acres Drain, Alameda Outfall Channel, Paseo del Norte Outfall Channel, & Sanchez Farm Drainage Area.</p>		
Not Included in NOI	16	<p>A cooperative strategy to address PCBs in the COA, AMAFCA and Bernalillo County's drainage areas may be developed between Bernalillo County, AMAFCA, and the COA. If a cooperative strategy is developed, the cooperative strategy shall be submitted to EPA within 3 years from the effective date of the permit and submit a progress</p>	<p>This section of the permit is specific to COA, AMAFCA and Bernalillo County. <u>The Town of Bernalillo has no role or responsibility with regard to this section of the permit.</u></p>	Not applicable

		report with the fourth and with subsequent Annual Reports, Note: COA and AMAFCA must continue implementing the existing PCB strategy until a new Cooperative PCB Strategy is submitted to EPA.		
	17	Compliance with Water Quality Standards - Temperature - Part I.C.1.f		
Not Included in NOI	18	Per Part I.C.1.f, the permittees must continue assessing the potential effect of stormwater discharges in the Rio Grande by collecting and evaluating additional data. If the data indicates there is a potential of stormwater discharges contributing to exceedances of applicable temperature water quality standards in waters of the United States, within thirty (30) days such as findings, the permittees must develop and implement a strategy to eliminate conditions that cause or contribute to these exceedances.	This section of the permit is specific to COA and AMAFCA. <u>The Town of Bernalillo has no role or responsibility with regard to this section of the permit.</u>	Not applicable
Not Included in NOI	19	The strategy must include: (i) Identify structural controls, post construction design standards, or pollutants contributing to raised temperatures in the receiving waters of the Rio Grande. Both dry and wet weather discharges shall be addressed. Assessment may be made using available data or collecting additional data;	This section of the permit is specific to COA and AMAFCA. <u>The Town of Bernalillo has no role or responsibility with regard to this section of the permit.</u>	Not applicable

		(ii) Develop and implement controls to eliminate structural controls, post construction design standards, or the discharge of pollutants at levels that cause or contribute to exceedances of applicable water quality standards for temperature in waters of the United States; and		
Not Included in NOI	20	(iii) Provide a progress report with the first and with subsequent Annual Reports. The progress reports shall include: (a) Summary of data. (b) Activities undertaken to identify MS4 discharge contribution to exceedances of applicable temperature water quality standards in waters of the United States. (c) Conclusions drawn, including supporting information for any determinations. (d) Activities undertaken to reduce MS4 discharge contribution to exceedances of applicable temperature water quality standards in waters of the United States. (e) Accounting of stakeholder involvement.	This section of the permit is specific to COA and AMAFCA. The Town of Bernalillo has no role or responsibility with regard to this section of the permit.	Not applicable
	21	Discharges to Impaired Waters with Approved TMDLs - Part I.C.2.b.(i) and TABLE 1.a - TMDL Bacteria Program- Part I.C.2.b.(iii)		
Not Included in	22	Per Part I.C.2.b. (i), if the permittee discharges to an impaired water body	A bacteria TMDL for the Middle Rio Grande was approved by the New Mexico Water	Town of Bernalillo's measurable goals for

<p>NOI</p>		<p>with an approved TMDL (see MS4 Permit, Appendix B), where storm water has the potential to cause or contribute to the impairment, the permittee shall include in the SWMP controls targeting the pollutant(s) of concern along with any additional or modified controls required in the TMDL and this section. As stated in the Permit, Appendix B, a bacteria TMDL for the Middle Rio Grande was approved by the New Mexico Water Quality Control Commission on April 13, 2010, and by EPA on June 30, 2010. The new TMDL modifies: 1) the indicator parameter for bacteria from fecal coliform to E. coli, and 2) the way the WLAs are assigned.</p> <p>The SWMP and required annual reports must include information on implementing any focused controls required to reduce the pollutant(s) of concern as described below:</p>	<p>Quality Control Commission on April 13, 2010, and by EPA on June 30, 2010. <u>The Town of Bernalillo's proposed plans for compliance with the Permit activities are described in the sections below.</u></p>	<p>compliance with the Permit activities are described in the sections below.</p>
<p>Not Included in NOI</p>	<p>23</p>	<p>(a) Targeted Controls: The SWMP submitted with the first annual report must include a detailed description of all targeted controls to be implemented, such as identifying areas of focused effort or implementing additional BMPs that will be implemented to reduce the pollutant of concern in the impaired waters, as</p>	<p><u>The Town of Bernalillo's proposed plan for targeted controls for bacteria include:</u></p> <p>A. Sanitary Sewer Systems: The Town of Bernalillo owns and operates a Sanitary Sewer System that provides service to approximately 75% of the Town's residents. The Town's NPDES permit includes maximum requirements for E. coli discharge to the Rio Grande.</p>	<ul style="list-style-type: none"> • The Town of Bernalillo will report any E. coli exceedances associated with the Town's Wastewater facility in the Annual Report. The Town will also include any wastewater overflows in the annual report.

required in Part LC.2.b.(i)(e), the permittee shall include focused BMPs addressing the five areas below:

A. Sanitary Sewer Systems: Improve sanitary sewers; fix lift stations; identify and implement O&M procedures; improve violation reporting; prevent overflows.

B. On-Site Sewage Facilities: Address failing systems and inadequate maintenance of On-Site Sewage Facilities.

C. Illicit Discharges and Dumping: Address efforts to reduce waste sources of bacteria, for example septic systems, grease traps, and grit traps.

D. Animal Sources: Address management programs to identify and target sources such as pet waste and horse stables.

E. Residential Education: Address bacteria from residential sites including fats, oils, and grease that clog sanitary sewer lines and resulting overflows; decorative ponds and pet waste.

The Town also provides rapid response to address any leaks or spills within the sanitary sewer system.

B. On-Site Sewage Facilities: The Town's Sanitary Sewer Ordinance requires all residents who wish to install an onsite sewage facility to get approval from the Town. The Town will use its existing on-site permitting process to distribute information about proper septic system maintenance to 100% of new septic-permit holders. Issuance of Town septic permits will include an information packet with recommended pumping/maintenance schedules and do's and don'ts of septic system care.

C. Illicit Discharges and Dumping: The Town's IDDE program includes efforts that target sources of bacteria and other pollutants. Refer to the SWMP, Table 6 Illicit Discharges and Improper Disposal, for additional information.

D. Animal Sources: The Town addresses reducing pet waste through its public outreach and educational program and events. The Town will continue its focus on reducing pet waste through its "Poop Fairy" campaign and its involvement with the MRGSWQT educational outreach "Scoop the Poop" campaign.

E. Residential Education: The Town will address this area through educational and public outreach through its involvement with the MRGS WQT.

- Town of Bernalillo will include the MRGSWQT Outcomes Report in each Annual Report which will summarize the activities or planned activities where educational materials are distributed.

- Town of Bernalillo will address the Illicit Discharge and Dumping through its IDDE Program, refer to the SWMP - Table 6 Illicit Discharges and Improper Disposal, for additional information.

- Through the IDDE Program, the Town of Bernalillo will continue coordination with the City of Rio Rancho, who will inform Town of Bernalillo of any sewer overflows that impact Town of Bernalillo facilities.

<p>Not Included in NOI</p>	<p>24</p>	<p>(b) Measurable Goals: For each targeted control, the SWMP must include a measurable goal and an implementation schedule describing BMPs to be implemented during each year of the permit term.</p> <p>Where the impairment is for bacteria, the permittee must, at minimum comply with the activities and schedules described in Table 1.a of Part I.C.2.b.(iii).</p>	<p><u>The Town of Bernalillo 's measurable goals for targeted controls for bacteria include:</u></p> <p>A. Sanitary Sewer Systems - The Town of Bernalillo owns and operates a Sanitary Sewer System that provides service to approximately 75% of the Town's residents. The Town's NPDES permit includes maximum requirements for E. coli discharge to the Rio Grande.</p> <p>B. On-site Sewage Facilities: The Town will establish a goal of contacting a minimum of 15 unpermitted system or aging system owners per year with the intent of verifying status and educating regarding proper operation of the systems.</p> <p>C. Illicit Discharges and Dumping: Refer to the SWMP - Table 6: Illicit Discharges and Improper Disposal, for measurable goals.</p> <p>D. Animal Sources: The Town will continue its focus on reducing pet waste in stormwater by continuing to provide targeted signage in areas of specific concern that encourage the general public to pick up and properly dispose of their pet's waste and to participate in MRGSWQT educational outreach, including the "Scoop the Poop" campaign.</p>	<p>The Town will address Illicit Discharge and Dumping through its IDDE Program, refer to the SWMP - Table 6: Illicit Discharges and Improper Disposal, for additional information.</p> <p>The Town will continue to provide proper pet waste disposal outreach and education.</p> <p>The Town will continue its "Poop Fairy" public information campaign.</p> <p>The Town will contribute and participate in the MRGSWQT.</p> <p>The Town will include the MRGSWQT Outcomes Report in each Annual Report which will summarize the activities or planned activities related to targeting pet waste sources and residential education targeting bacteria sources.</p>
----------------------------	-----------	--	--	--

			<p>E. Residential Education, MRGSWQT educational outreach – The Town will continue to collaborate with the MS4 permittees to improve upon the existing public education and outreach program. The MRGSWQT continue to expand upon its education programs, media campaigns, printed materials including brochures, public presentations/events, give-a-ways, and display booth/kiosk and signage at select locations, website and Facebook page.</p>	
<p>Not Included in NOI</p>	<p>25</p>	<p>Per Part I.C.2 b.(i) (f), the permittee shall monitor or assess progress in achieving measurable goals and determining the effectiveness of BMPs, and shall include documentation of this monitoring or assessment in the SWMP and annual reports. In addition, the SWMP must include methods to be used. This program element may be coordinated with the monitoring required in Part III.A. The permittee may use the following methods either individually or in conjunction to</p>	<p>The Town of Bernalillo will assess and evaluate the program and progress in achieving the measurable goals listed above by tracking the number of educational outreach opportunities conducted and tracking the number of people reached through the educational outreach program.</p> <p>In addition, The Town of Bernalillo will conduct compliance monitoring to monitor and test for E. coli This sampling will be done in accordance with Part III.A of the MS4 Permit and will help with a water quality</p>	<p>Town of Bernalillo will include the MRGSWQT Outcomes Report in each Annual Report which will track the number of educational outreach opportunities conducted and list the number of people reached through the educational outreach program.</p>

		<p>evaluate progress towards the measurable goal and improvements in water quality as follows:</p> <p>A. Evaluating Program Implementation Measures; or</p> <p>B. Assessing Improvements in Water Quality</p> <p>Progress towards achieving the measurable goal shall be reported in the annual report</p> <p>Annual reports shall report the measurable goal and the year(s) during the permit term that the MS4 conducted additional sampling or other assessment activities.</p>	<p>assessment of the overall watershed related to E. coli. The proposed plan for this program is described in the Wet Weather Monitoring Program portion of this SWMP.</p>	<p>The Town will conduct stormwater monitoring in accordance with Table 10, Wet Weather Monitoring Program, and Part 111.A.1. The goals and plan for this program are described in the Wet Weather Monitoring Program portion of this SWMP.</p>
<p>Not Included in NOI</p>	<p>26</p>	<p>If, by the end of the 3rd year from the effective date of the permit, the permittee observes no progress toward the measurable goal either from program implementation or water quality assessments, the permittee shall identify alternative focused BMPs that address new or increased efforts towards the measurable goal.</p> <p>As appropriate, the MS4 may develop a new approach to identify the most significant sources of the pollutant(s) of concern and shall develop alternative focused BMPs (this may also include information that identifies issues</p>	<p>The Town will annually assess and evaluate the program and its progress in achieving the measurable goals listed above. If, by the end of the 3rd year from the effective date of the MS4 Permit, the Town observes no progress toward the measurable goals either from program implementation or water quality assessments, the Town will reevaluate the program and identify alternative focused BMPs that address new or increased efforts towards the measurable goals.</p>	<p>If, by the end of the 3rd year from the effective date of the MS4 Permit, the Town observes no progress toward the measurable goals either from program implementation or water quality assessments, the Town will reevaluate the program and identify alternative focused BMPs that address new or increased efforts towards the measurable goals.</p>

		<p>beyond the MS4's control).</p> <p>These revised BMPs must be included in the SWMP and subsequent annual reports. Where the permittee originally used a measurable goal based on an aggregated WLA, the permittee may combine or share efforts with other MS4s discharging to the same impaired stream segment to determine an alternative sub-measurable goal for the pollutant(s) of concern for their respective MS4s, as described in Part I.C.2.b.(i)(c).B above.</p> <p>Permittees must document the proposed schedule for the development and subsequent adoption of alternative measurable goals for the pollutant(s) of concern for their respective MS4s and associated assessment of progress in meeting those individual goals.</p>		
<p>Not Included in NOI</p>	<p>27</p>	<p>From Table 1.a Identify potential significant sources of the pollutant of concern entering your MS4.</p>	<p>The Middle Rio Grande Microbial Source Tracking Assessment Report (Parson Water & Infrastructure Inc., October 2005) concluded that the primary fecal sources for coliform are avian (33.5%), canine (21.9%), human/sewage (15.9%), livestock (13.7%), and non-avian wildlife (12.8%), primarily rodent. Bernalillo County helped to fund this report.</p> <p>Additionally, AMAFCA contracted with a consultant to restudy the bacteria within the Middle Rio Grande in 2014-2015, specifically</p>	<p>Several studies related to identifying potential significant sources of the pollutant of concern have been completed for the MRGWatershed MS4 area. The results of these studies will be used to guide the overall program plan and goals.</p>

			to evaluate the bacteria data over the recent history to report the trend analysis and the impact to the Rio Grande. The report for this study is the Middle Rio Grande E.coli Analysis and Research (CDM Smith, April 2015).	
Not Included in NOI	28	From Table 1.a: Develop, or modify an existing program, for prior permittees under NMS000101) and implement a public education program to reduce the discharge of bacteria in municipal stormwater contributed by pets, recreational and exhibition livestock, and zoos (if applicable).	The Town will continue its focus on reducing pet waste through its "Poop Fairy" campaign and through continued involvement with the MRGSWQT educational outreach "Scoop the Poop" campaign.	<p>The Town will continue its "Poop Fairy" campaign with signage and flagging of pet waste along pedestrian areas</p> <p>The Town will contribute and participate in the MRGSWQT.</p> <p>The Town will include the MRGSWQT Outcomes Report in each Annual Report, which will summarize the activities or planned activities related to targeting pet waste sources and residential education targeting bacteria sources.</p>
Not Included in NOI	29	From Table 1.a: Develop, or modify an existing program, for prior permittees under NMS000101 and implement a program to reduce the discharge of bacteria in municipal stormwater contributed by areas within your MS4 served by on-site wastewater	The Town's Sanitary Sewer Ordinance requires all residents who wish to install an on-site sewage facility to get approval from the Town. The Town will use its existing on-site permitting process to distribute information about proper septic system maintenance to 100% of new septic-permit holders.	Town of Bernalillo will continue membership and involvement in the cooperative MRGSWQT, which will conduct educational and public outreach as well as facilitate

		treatment systems.	<p>Issuance of Town septic permits will include an information packet with recommended pumping/maintenance schedules and do's and don't's.</p> <p>The Town will establish a goal of contacting a minimum of 15 unpermitted system or aging system owners per year with the intent of verifying status and educating regarding proper operation of the systems.</p>	<p>cooperation and coordination with other MS4s in the Middle Rio Grande related to screening and notification of illicit discharges.</p>
Not Included in NOI	30	From Table 1.a: Review results to date from the Illicit Discharge Detection and Elimination program (see Part I.D.S.e) and modify as necessary to prioritize the detection and elimination of discharges contributing bacteria to the MS4.	The Town will incorporate this permit requirement into the IDDE program. Refer to the SWMP, Table 6: Illicit Discharges and Improper Disposal, for additional information.	The Town addresses this permit activity in the IDDE Program. Refer to the SWMP, Table 6: Illicit Discharges and Improper Disposal, for additional information.
Not Included in NOI	31	From Table 1.a.; develop or modify an existing program for prior permittees under NMS000101, and implement a program to reduce the discharge of bacteria in municipal stormwater contributed by other significant sources identified in the Illicit Discharge Detection and Elimination program (see Part I.D.S.e).	This requirement will be addressed in conjunction with the Town's IDDE Program, refer to the SWMP - Table 6 Illicit Discharges and Improper Disposal, for additional information. The Town will review its IDDE Program results annually and identify illicit discharges (specific as well as general types of discharges and/or locations of discharges) that contributed bacteria to the MS4. Strategies will be developed to address these specific or general IDDEs. Development and implementation of strategies will depend on the IDDE program results.	<p>Town of Bernalillo will review its IDDE Program results annually and identify illicit discharges that contributed bacteria to the MS4.</p> <p>Town of Bernalillo will develop strategies to address IDDEs found to contribute bacteria. The development and implementation of strategies will depend on the results. These strategies will be reported in subsequent Annual Reports.</p>

<p>Not Included in NOI</p>	<p>32</p>	<p>Include in the Annual Report, progress on program implementation and reducing the bacteria and update the measurable goals, as necessary</p> <p>As required in Part I.C.2.b.(i)(d), the annual report must include an analysis of how the selected BMPs have been effective in contributing to achieving the measurable goal and shall include graphic representation of pollutant trends, along with computations of annual percent reductions achieved from the baseline loads and comparisons with the target loads.</p>	<p>The Town will include the MRGSWQT Outcomes Report in each Annual Report, which will track the number of educational outreach opportunities conducted and list the number of people reached</p> <p>Through the educational outreach program, summarize the activities or planned activities related to targeting pet waste sources as well as residential education targeting bacteria sources.</p> <p>If strategies are developed to address IDDEs found to contribute bacteria to the MS4, these will be reported in subsequent Annual Reports.</p> <p>The Town will report annually on compliance monitoring to monitor and test for E. coli. This reporting will be done in accordance with Part III.A. (Wet Weather Monitoring Program) of the MS4 Permit and will help with a water quality assessment of the overall watershed related to E. coli. Graphical representation of E. coli trends will also be completed and reported annually</p>	<p>The Town will include the MRGSWQT Outcomes Report in each Annual Report.</p> <p>Strategies developed to address IDDEs found to contribute bacteria to the MS4 will be reported in subsequent Annual Reports</p> <p>The Town will report annually on compliance monitoring to monitor and test for E. coli. This reporting will be done in accordance with Part III.A. (Wet Weather Monitoring Program) of the MS4 Permit. This will include graphical representation of E. coli trends.</p>	
	<p>33</p>	<p>Discharges to Impaired Waters Without Approved TMDLs - Part I.C.2.b.(ii)</p>			
<p>Not Included in NOI</p>	<p>34</p>	<p>Per Part I.C.2 b.(ii), if the permittee discharges directly into an impaired water body without an approved TMDL, the permittee shall perform the following activities (described in</p>	<p>The Rio Grande has the following impairments, without TMDLs:</p> <p>Rio Grande (Isleta Pueblo to US 550) - DO and PCBs in Fish Tissue;</p>	<p>Impairment for Dissolved Oxygen is addressed in the Endangered Species Act (ESA) section - Part I.C.3. Phase 1 permittee</p>	

		sections below).	<p>Rio Grande (Alameda to US 550) - PCBs and Gross Alpha adjusted;</p> <p>Rio Grande (Isleta Pueblo to Alameda) - water temperature</p> <p>The Tijeras Arroyo, upstream of the Four Hills Bridge, is impaired for nutrient/eutrophication.</p> <p>The Tijeras Arroyo, upstream of the Four Hills Bridge, is all privately owned land.</p> <p>The Town of Bernalillo has no operation authority in the Tijeras Arroyo. Therefore, there are no requirements in this SWMP to comply with the activities and schedules related to Impairment for Nutrients in Table 1.b in Part 1.C.2.b. (iii).</p> <p>The Town of Bernalillo does monitor for nutrients through its Wet Weather Monitoring Program, see Table 10 of the SWMP.</p>	<p>requirement only.</p> <p>Impairment for PCBs is addressed in Compliance with Water Quality Standards - PCBs - Part I.C.1.e. Phase 1 permittee requirement only.</p> <p>Impairment for Temperature is addressed in Compliance with Water Quality Standards - Temperature - Part I.C.1.f. Phase 1 permittee requirement only.</p> <p>Compliance monitoring (Part III.A) includes Gross Alpha testing. Future assessment related to the impairment will be based on results of those samples.</p>
Not Included in NOI	35	The permittee shall: A. Determine whether the MS4 may be a source of the pollutant(s) of concern by referring to the CWA §303(d) list and then determining if discharges from the MS4 would be likely to contain the pollutant(s) of concern at levels of concern. The evaluation of CWA §303(d) list parameters should be carried out based on an analysis of	<p>Most of the impaired pollutants of concern are specifically addressed in other sections of the MS4 Program and therefore in other sections of the SWMP.</p> <p>Please refer to: Dissolved Oxygen and Endangered Species Act (ESA) section - Part I.C.3;</p> <p>PCBs are addressed in Compliance with Water</p>	<p>Refer to other SWMP sections:</p> <p>Dissolved Oxygen is addressed in the Endangered Species Act (ESA) Section - Part I.C.3.</p> <p>PCBs are addressed in Compliance with Water</p>

		<p>existing data (e.g., IDDE Program) conducted within the permittee's jurisdiction.</p> <p>B. Ensure that the SWMP includes focused BMPs and corresponding measurable goals that the permittee will implement to reduce the discharge of pollutant(s) of concern that contribute to the impairment of the water body. The SWMP submitted with the first annual report must include a detailed description of proposed controls to be implemented along with measurable goals.</p> <p>C. Amend the SWMP to include any BMPs to address the pollutant(s) of concern.</p>	<p>Quality Standards - PCBs - Part I.C.1.e and;</p> <p>Temperature is addressed in Compliance with Water Quality Standards - Temperature - Part I.C.1.f</p> <p>Compliance monitoring (Part III.A.) includes Gross Alpha testing. The testing will allow the Town to determine background levels relative to stormwater discharges. Future assessment related to this impairment will be based on results of those samples.</p>	<p>Quality Standards - PCBs - Part I.C.1.e</p> <p>Temperature is addressed in Compliance with Water Quality Standards - Temperature - Part I.C.1.f</p> <p>Compliance monitoring (Part III.A.) includes Gross Alpha testing. Future assessment and strategies related to these impairments will be based on results of the stormwater samples.</p>
	36	Endangered Species Act (ESA) Requirements - Sediment Pollutant Load Reduction Strategy - Part I.C.3.b		
Not Included in NOI	37	<p>Per Part I.C.3.b, the permittee must develop, implement, and evaluate a sediment pollutant load reduction strategy to assess and reduce pollutant loads associated with sediment (e.g. metals, etc. absorbed by or traveling with sediment, as opposed to clean sediment) into the receiving waters of the Rio Grande. The strategy must include the following elements (see sections below):</p>	<p>The Town's proposed plan for compliance with the Permit activities are described in the sections below.</p>	<p>The Town's measurable goals for compliance with the Permit activities are described in the sections below.</p>

<p>Not Included in NOI</p>	<p>38</p>	<p>(j) Sediment Assessment: The permittee must identify and investigate areas within its jurisdiction that may be contributing excessive levels (e.g. levels that may contribute to exceedance of applicable Water Quality Standards) of pollutants in sediments to the receiving waters of the Rio Grande as a result of stormwater discharges.</p> <p>The permittee must identify structural elements, natural or man-made, topographical and geographical formations, MS4 operations activities, and areas indicated as potential sources of sediments and pollutants in the receiving waters of the Rio Grande.</p> <p>At the time of assessment, the permittee shall record any observed erosion of soil or sediment along ephemeral channels, arroyos, or stream banks, noting the scouring or sedimentation in streams.</p> <p>The assessment should be made using available data from federal, state or local studies supplemented as necessary with the collection of additional data. The permittee must describe, in the first annual report, all standard operating procedures, quality assurance plans to assure that accurate data are collected, summarized, evaluated and reported.</p>	<p>There are only two outfalls within the Town's jurisdiction that may contribute excessive levels of pollutants in sediments to the receiving waters of the Rio Grande (Venada Arroyo and the newly named Coronado Arroyo). Both of these arroyos are owned and operated by the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA).</p> <p>SSCAFCA currently has a construction project in design for the Coronado Arroyo which will minimize the levels of sediments that reach the Rio Grande. SSSCAFCA facilities function as regional flood control facilities and also function as BMPs to remove sediment from stormwater before the stormwater continues to the Rio Grande.</p> <p>A large portion of SSSCAFCA's routine activities include sediment removal from its facilities such as the Venada Arroyo and the Coronado Arroyo once construction is completed.</p> <p>SSCAFCA has implemented a tracking system to measure the sediment removal quantities at all of its facilities. The data collected will be used by SSSCAFCA for the required MS4 Sediment Assessment.</p> <p>The Town will use the information gathered by SSSCAFCA for the required MS4 Sediment Assessment.</p>	<p>The Town will obtain data from SSSCAFCA for the Arroyos within the Town's jurisdiction and report this information in the annual report</p>
----------------------------	-----------	---	---	--

<p>Not Included in NOI</p>	<p>39</p>	<p>(ii) Estimate Baseline Loading: Based on the results of the sediment pollutants assessment required in Part I.C.3.b.(i) above, the permittee must provide estimates of baseline total sediment loading and relative potential for contamination of those sediments by urban activities for drainage areas, sub-watersheds, Impervious Areas (IAs), and/or Directly Connected Impervious Areas (DCIAs) draining directly to a surface waterbody or other feature used to convey waters of the United States.</p> <p>Sediment loads may be provided for targeted areas in the entire Middle Rio Grande Watershed using an individual or cooperative approach. Any data available and/or preliminary numeric modeling results may be used in estimating loads.</p>	<p>Because the only outfalls to the Rio Grande within the Town's jurisdiction are owned and operated by SSCAFCA, the Town will obtain and review the information collected by SSCAFCA.</p> <p>The Town will also work closely with SSCAFCA and utilize information obtained from SSCAFCA's implementation of a rainfall and runoff monitoring program to begin to quantitatively tie sediment quantities reaching SSCAFCA facilities (sediment removal volumes) to rainfall quantity, location, and runoff volumes</p>	<p>Because the only outfalls to the Rio Grande within the Town's jurisdiction are owned and operated by SSCAFCA, the Town will obtain and review the information collected by SSCAFCA. The Town will work cooperatively with SSCAFCA to identify and make improvements as necessary to meet this permit requirement.</p>
<p>Not Included in NOI</p>	<p>40</p>	<p>(iii) Targeted Controls: Include a detailed description of all proposed targeted controls and BMPs that will be implemented to reduce sediment pollutant loads, calculated in Part I.C.3.b.(ii) above, during the next ten (10) years of permit issuance.</p> <p>For each targeted control, the permittee must include interim measurable goals (e.g. interim sediment pollutant load reductions) and an implementation and maintenance schedule, including interim milestones,</p>	<p>Because the only outfalls to the Rio Grande within the Town's jurisdiction are owned and operated by SSCAFCA, the Town will obtain and review the information collected by SSCAFCA for facilities located in the Town's jurisdiction.</p> <p>Revision of the Town's ordinance will require that all construction projects, both public and private, unless specifically excluded, have an approved erosion control plan prior to the start of construction.</p> <p>The erosion control plan must address stormwater</p>	<p>Because the only outfalls to the Rio Grande within the Town's jurisdiction are owned and operated by SSCAFCA, the Town will obtain and review the methods and information collected by SSCAFCA for facilities located in the Town's jurisdiction.</p> <p>Following review of the Sediment Assessment</p>

		<p>for each control measure, and as appropriate, the months and years in which the MS4 will undertake the required actions.</p> <p>Any data available and/or preliminary numeric modeling results may be used in establishing the targeted controls, BMPs, and interim measurable goals.</p> <p>The permittee must prioritize pollutant load reduction efforts and target areas (e.g. drainage areas, subwatersheds, IAs, DCIAs) that generate the highest annual average pollutant loads.</p>	<p>quality where the land disturbance is one acre or greater, or is part of a larger common plan of development.</p> <p>The Ordinance will also require all development and redevelopment projects with land disturbances equal to or greater than one acre, including sites which disturb less than one acre but are part of a larger common plan of development have post construction water quality BMPs.</p>	<p>findings, The Town will make program and system improvements as necessary to meet this Permit requirement.</p>
Not Included in NOI	41	<p>(iv) Monitoring and Interim Reporting: The permittee shall monitor or assess progress in achieving interim measurable goals and determining the effectiveness of BMPs, and shall include documentation of this monitoring or assessment in the SWMP and annual reports. In addition, the SWMP must include methods to be used. This program element may be coordinated with the monitoring required in Part III.A.</p>	<p>The Town will annually obtain the assessment of progress for this program for facilities located within the Town's jurisdiction from SSCAFCA. SSCAFCA will monitor the volume of sediment captured by each facility by measuring the volume of sediment removed from each facility. Documentation of this monitoring will be done using the tracking spreadsheet and procedure, which will be summarized in each Annual Report.</p>	<p>The Town will include in each Annual Report a progress update for this program.</p>
Not Included in NOI	42	<p>(v) Progress Evaluation and Reporting: The permittee must assess the overall success of the Sediment Pollutant Load Reduction Strategy and document both direct and indirect measurements of program effectiveness in a Progress Report to be submitted with the fifth Annual Report.</p>	<p>There are only two outfalls within the Town's jurisdiction that may contribute excessive levels of pollutants in sediments to the receiving waters of the Rio Grande (Venada Arroyo and the newly named Coronado Arroyo). Both of these arroyos are under the jurisdiction of the Southern</p>	<p>The Town will complete and provide EPA with the fifth Annual Report, due Dec. 1, 2019, a Progress Report on the Sediment Pollutant Load Reduction Strategy. This Progress Report will meet the</p>

		<p>Data must be analyzed, interpreted, and reported so that results can be applied to such purposes as documenting effectiveness of the BMPs and compliance with the ESA requirements specified in Part I.C.3.b.</p> <p>The Progress Report must include:</p> <ul style="list-style-type: none"> (a) A list of species likely to be within the action area; and (b) Type and number of structural BMPs installed; and (c) Evaluation of pollutant source reduction effects; and (d) Any recommendations based on program evaluation; and (e) Description of how the interim sediment load reduction goals established in Part I.C.3.b (iii) were achieved; and (f) Future planning activities needed to achieve and increase in sediment load reduction required in Part I.C.3.d.(iii). 	<p>Sandoval County Arroyo Flood Control Authority (SSCAFCA).</p> <p>The Town will use the information and evaluation gathered and completed by SSCAFCA. In addition to this information, the Town will evaluate any BMPs or pollutant source reduction efforts.</p>	<p>Permit requirements.</p>
<p>Not Included in NOI</p>	<p>43</p>	<p>(vi) Critical Habitat: Verify that the installation of stormwater BMPs will not occur in or adversely affect currently listed endangered or threatened species critical habitat by reviewing the activities and locations of stormwater BMP installation within the location of critical habitat of currently listed endangered or threatened species at the FWS website: www.criticalhabitat.fws.gov</p>	<p>The Town of Bernalillo considers critical habitat for all of its projects, works closely with the USFWS and USACE, as required, and will continue this practice related to any BMPs installed related to sediment capture and removal.</p>	<p>Town of Bernalillo will continue its practice of coordination with the USFWS and USACE, as required, related to Town of Bernalillo's facility construction projects.</p>

	44	Part 1.0.5 - Stormwater Management Plan (SWMP) Control Measures		
	45	TABLE 2: Construction Site Stormwater Runoff Control - Part 1.0.5.a		
See NOI Section Below	46	I.D.5.a.(i) The permittee shall develop, revise, implement, and enforce a program to reduce pollutants in any stormwater runoff to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activity disturbing less than one acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more.	The Town will develop an ordinance that requires all construction, development and redevelopment projects with land disturbances equal to or greater than one acre, including sites which disturb less than one acre but are part of a larger common plan of development, to have a SWPPP in accordance with EPA NPDES regulations for construction site stormwater runoff control. The SWPPP shall outline the BMPs to be undertaken by the operator/owner of the project to protect stormwater quality during construction and will be maintained by the owner of the property.	Records of the inspections will be made available for the Public Works Director to review. Site inspections are carried out concurrently with building code inspections by the Town. Several inspections are conducted over the construction project lifetime and include checking for compliance with the SWPPP review and a final inspection of post-construction BMPs.
1.1	47	Development of an ordinance or other regulatory mechanism as required in Part I.D.5.a.(ii)(a), an ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State, Tribal, or local law.	The Town will modify existing planning and zoning ordinances, subdivision regulations and building permit requirements to require all construction, development and redevelopment projects with land disturbances equal to or greater than one acre, including sites which disturb less than one acre but are part of a larger common plan of development, to have a SWPPP in accordance with EPA NPDES Phase II regulations for construction site stormwater runoff control.	The Town will enforce the ordinance and will track the number of SWPPPs, including erosion control plans, reviewed annually.

The SWPPP shall outline the BMPs to be undertaken by the operator/owner of the project to protect stormwater quality during construction and will be maintained by the owner of the property.

The ordinance shall include the following requirements (based on nature of the development or construction project):

- ponds shall provide for additional volume to accommodate sediment where undeveloped areas contribute flow or there is less than 40 percent of the total drainage area is impervious; and
- a grading and drainage plan to include erosion control information sufficient in detail to determine project feasibility; and
- all construction projects, both public and private will require an approved erosion control plan prior to the start of construction.
- The erosion control plan must address stormwater quality where the land disturbance is one acre or greater, or is part of a larger common plan of development.
- Penalties for non-compliance with this ordinance shall include liens against the property for reasonable costs associated with

			<p>remedies, and/or revocation or refusal to renew or issue any permit until appropriate remedies are made.</p>	
<p>1.2</p>	<p>48</p>	<p>Develop requirements and procedures as required in Part I.D.S.a(ii)(b) through Part I.D.S.a(ii)(h)</p> <p>(b) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices (both structural and non-structural).</p> <p>(c) Requirements for construction site operators to control waste such as, but not limited to, discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.</p> <p>(d) Procedures for site plan review which incorporate consideration of potential water quality impacts. The site plan review must be conducted prior to the commencement of construction activities and include a review of the site design, the planned operations at the construction site, the planned control measures during the construction phase (including the technical criteria for selection of the</p>	<p>(b) and (c) - The Town will modify existing planning and zoning ordinances, subdivision regulations and building permit requirements to require all construction, both public and private, within the Town's jurisdiction, require an approved erosion control plan prior to the start of construction. The erosion control plan must address stormwater quality where the land disturbance is one acre or greater or is part of a larger common plan of development</p> <p>(b) and (c) - The Town will modify ordinances to ensure a SWPPP is required in accordance with EPA NPDES Phase II regulations for construction site stormwater runoff control and the SWPPP shall outline the BMPs to be undertaken by the operator/owner of the project to protect stormwater quality during construction and will be maintained by the owner of the property.</p> <p>(d) The Town will meet this requirement through the Grading and Drainage plan review process. This oversight is completed through the review of permit application requests. These permits generally consist of building, zone changes and/or platting</p>	<p>(b), (c) and (d) - The Town will complete modification of the ordinance, begin enforcement of the ordinance and will track the number of SWPPPS, including erosion control plans, reviewed annually.</p> <p>(e) Public Works and Planning and Zoning staff will continue to receive and address public comments. When complaints are received, the Town Engineer will conduct a site visit to ensure that SWPPP documents and BMPs are in place and accurate.</p> <p>Complaints are managed and tracked through the Town's tracking system. Inspections are recorded by the Town Engineer.</p> <p>(f) The Town will complete the</p>

control measures), and the planned controls to be used to manage runoff created after the development.

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

(f) Procedures for site inspection during construction, and enforcement of control measures including provisions to ensure proper construction, operation, maintenance, and repair. The procedures must clearly define who is responsible for site inspections; who has the authority to implement enforcement procedures; and the steps utilized to identify priority sites for inspection and enforcement based on the nature of the construction activity, topography, and the characteristics of soils and the quality of the receiving water.

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

actions and are reviewed for compliance with guidance/regulatory documents such as the MS4 Permit, the drainage, floodplain, street standards, and regional master plans. This incorporates consideration of potential water quality impacts and ensures compliance with floodplain and stormwater issues. Construction permits will require SWPPPs for sites that disturb greater than one acre. The County conducts on-site inspections to ensure drainage regulation compliance.

(d) In a cooperative effort with the SSCAFCA and ESCAFCA, the Town of Bernalillo Public Works Director will review development projects that have a direct connection to SSCAFCA or ESCAFCA facilities for projects disturbing at least one acre. Review includes stormwater conveyance, water quality, and erosion control.

(e) Public Works and Planning and Zoning staff attend public meetings, public hearings and private meetings with public employees and private citizens to present appropriate information and answer questions. The staff emphasizes coordination with all applicable government agencies to expedite these services.

The Town Water department also receives complaints and information from the public

modification of ordinances and begin enforcement of the ordinances and will track the number of SWPPPs, including erosion control plans. Town staff will receive training for planning review, permitting, and/or approval of site plans, inspection, and enforcement.

(g) The Town will require a Post-Construction Evaluation form for commercial and some residential projects. This form will be reviewed and updated as necessary. Additional education and outreach opportunities will be explored for developers, construction site operators, and contractor trainings. The Town will continue to actively participate on the MRGSWQT.

(h) The Town will track regulated construction activities including site plan reviews, inspections, and enforcement documents. A summary of activities and the number and frequency of site plan reviews, inspections, and enforcement activities will be conducted annually and included in each annual report.

(h) Procedures for keeping records of and tracking all regulated construction activities within the MS4, i.e. site reviews, inspections, inspection reports, warning letters and other enforcement documents. A summary of the number and frequency of site reviews, inspections (including inspector's checklist for oversight of sediment and erosion controls and proper disposal of construction wastes) and enforcement activities that are conducted annually and cumulatively during the permit term shall be included in each annual report.

regarding stormwater quality issues as related to construction projects. When complaints are received, Public Works will conduct a site visit to ensure that SWPPP documents and BMPs are in place and accurate. Complaints are managed and tracked through the Water Department tracking system. Inspections are recorded by the Public Works Department and also recorded in the Planning and Zoning Department.

(f) The updated ordinances will include provisions for inspections by the Town. The ordinance requires weekly inspection of the BMPs by the owner, records of the inspections to be kept for the Public Works Director to review, and periodic inspection of BMPs by the Town. Any issues noted by the Town inspector are reported to the contractor.

Construction site inspections, as required by this Permit, are carried out concurrently with building code inspections by the Town. Several inspections are conducted over the construction project lifetime and include checking for compliance with the Building Permit, SWPPP review, and a final inspection of post-construction BMPs. The Town does not prioritize inspections because inspections are currently conducted on 100% of construction projects.

(f) Penalties for non-compliance with this revised ordinance will include liens against the property for reasonable costs associated with a remedy(ies), revocation or refusal to renew or issue any permit (including a Certificate of Occupancy or Business License) until appropriate remedies are made, and punishable as provided Town Code.

(g) Currently no Town staff have received stormwater inspector training. The Town Engineer conducts inspections, if needed.

All commercial applicants must complete the Stormwater Post- Construction Evaluation form. This form provides information about the MS4 Permit and directs the applicant to the Bernalillo County LID webpage (<https://www.bernco.gov/public-works/forms-applications>) or additional information to provide education to applicants. Residential applicants are not required to complete the form as part of the initial application but may be required to during plan review.

The Town is revising ordinances and regulations to require all construction, development, and redevelopment projects with land disturbances equal to or greater than one acre, including sites which disturb less than one acre but are part of a larger common plan of development, to have a SWPPP in accordance with EPA NPDES Phase II regulations for construction site stormwater runoff control.

			<p>Construction site inspections, as required by Part I D 5.a (iii), are carried out during the construction process. Several inspections are conducted over the construction project lifetime and include checking for compliance with the Construction General Permit, SWPPP, and a final inspection of post-construction BMPs.</p> <p>(h) Regulated construction activities within the MS4 area are tracked through the Town's building permit review and inspection process.</p>	
<p>1.3</p>		<p>Annually conduct site inspections of one-hundred percent (100%) of all construction projects</p>	<p>The Town will inspect 100% of all construction projects cumulatively disturbing one (1) or more acres as required in Part I D a.(iii)</p> <p>Site Inspections by the Town are carried out concurrently with the building construction process. Several inspections are conducted over the construction project lifetime and include checking for compliance with the Building Permit, SWPPP, and a final inspection of post-construction BMPs. Any issues noted by the inspector are reported to the contractor.</p>	<p>The Town will track regulated construction activities including site plan reviews, inspections, and enforcement documents. A summary of activities and the number and frequency of site plan reviews, inspections and enforcement activities will be conducted annually and included in each annual report.</p> <p>Town of Bernalillo will continue membership and involvement in the cooperative MS4 Technical Advisory Group (MS4 TAG),</p>

				which facilitates cooperation and coordination with other MS4s in the Middle Rio Grande area.
1.4	50	Coordinate with all departments and boards with jurisdiction over the planning, review, permitting, or approval of public and private construction projects/activities within the permit area as required in Part I.e. (iv).	The Town already complies with this Permit requirement. The Town will continue to review planning documents for public and private construction projects and activities within the Town's jurisdiction, as required by the ordinance.	<p>The Town will ensure regular coordination between applicable Departments and Boards and document this coordination in the project file.</p> <p>Town of Bernalillo will continue membership and involvement in the cooperative MS4 Technical Advisory Group (MS4 TAG), which facilitates cooperation and coordination with other MS4s in the Middle Rio Grande area.</p>
1.5	51	<p>Evaluation of GI/LID/Sustainable Practices in site plan reviews, as required in Part I.e.(v).</p> <p>The site plan review must include an evaluation of</p>	The Town will require outside consultants, who currently review grading and drainage plans, to incorporate a GI/LID/Sustainable Practices review.	Town of Bernalillo will annually report the number of plans that were reviewed within Town jurisdiction that

		<p>opportunities for use of GI/LID/ Sustainable Practices and when the opportunity exists, encourage project proponents to incorporate such practices into the site design to mimic the pre-development hydrology of the previously undeveloped site.</p> <p>For purposes of this permit, pre-development hydrology shall be met according to Part I.D.5.b of this permit (consistent with any limitations on that capture).</p> <p>Include a reporting requirement of the number of plans that had opportunities to implement these practices and how many incorporated these practices.</p>	<p>All construction projects that exceed one acre will be reviewed by the Town Engineer for GI/LID/Sustainable practices.</p>	<p>had opportunities to implement GI/LID/Sustainable Practices and how many incorporated these practices.</p>
<p>Not Included in NOI</p>	<p>52</p>	<p>Update the SWMP document and annual report as required in Part I.D.5.a.(vi) and in Part I.D.5.a.(vii)</p>	<p>The Town will update the SWMP to include a description of the mechanisms that will be used to comply with the construction site stormwater runoff control measures for each of the elements in Part I.D.5.a.(i) through Part I.D.5.a.(v) and corresponding measurable goals.</p> <p>The Town will assess and document the success of the program in the annual report including a summary of the frequency of site reviews, inspections, and enforcement activities that are conducted annually and cumulatively during the permit term and the number of plans that had an opportunity to incorporate GI/LID/sustainable practices and how many did incorporate these Practices.</p>	<p>The Town will include in each annual report, a summary of the frequency of site reviews, inspections, and enforcement activities that are conducted annually and cumulatively during the permit term. The annual report will also include a summary of the number of projects that have opportunities to implement GI/LID/sustainable practices and how many of these practices are implemented.</p>

1.6	53	<p>Enhance the program to include the elements in Part I.D.5.a.(viii) through part I.D.5.a.(x). These include:</p> <p>(viii) Use of stormwater educational materials; and</p> <p>(ix) Develop or update existing construction handbooks; and</p> <p>(x) construction inspections may be carried out in conjunction with other inspections and use a screening prioritization process.</p>	<p>The Town of Bernalillo will continue to use stormwater educational materials, either developed locally or provided by EPA, NMED environmental, public interest, trade organizations, and/or other MS4s. The Town of Bernalillo will work with other MS4s through the TAG to enhance the program to include program elements in Part I.D.5.a.(viii) Through Part I.D.5.a.(ix).</p>	<p>The Town of Bernalillo will include the MRGSWQT Outcomes Report in each Annual Report which will summarize the activities where educational materials were dispersed and shared with the public.</p> <p>The Town of Bernalillo will continue to attend and participate in the TAG to exchange information with other MS4s regarding potential program enhancements.</p>
	54	<p>TABLE 3: Post-Construction Stormwater Management in New Development and Redevelopment- Part I.D.5.b</p>		
See NOI Sections Below	55	<p>Part I.D.5.b.(i) The permittee must develop, revise, implement and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the MS4. The program must ensure that controls are in place that would prevent or minimize water quality impacts.</p>	<p>The Town is developing and will implement an ordinance 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 Town's MS4.</p> <p>The ordinance will ensure that for all development and redevelopment projects with land disturbances equal to or greater than one acre, including sites which disturb less than one acre but are part of a larger</p>	<p>Once the ordinance is approved the Town will begin enforcing the ordinance.</p>

			<p>common plan of development, that discharge into the Town's MS4 system, post construction water quality BMPs are required. This requirement is in addition to any other requirements that may apply. These BMPs shall be subject to the approval of the Public Works Director</p> <p>Maintenance responsibility of stormwater quality control facilities is the responsibility of the property owner up to the point where stormwater enters public facilities.</p>	
2.1	56	<p>Development of strategies as required in Part I.D 5.b.(ii)(a). Strategies which include a combination of structural and/or non-structural best management practices (BMPs) to control pollutants in stormwater runoff.</p>	<p>The Town is currently developing an ordinance that will include the following stormwater quality protections:</p> <p>Post-construction stormwater quality protection.</p> <p>(a) For all development and redevelopment projects with land disturbances equal to or greater than one acre, including sites which disturb less than one acre but are part of a larger common plan of development, that discharge into the Town's storm drainage system, post construction water quality BMPs will be required. These BMPs shall be subject to the approval of the Public Works Director.</p> <p>(b) Prior to construction, a conceptual grading and drainage plan showing existing and proposed grading, drainage, flood control and erosion control information in sufficient detail to determine project feasibility will be required.</p>	<p>Upon implementation of the new ordinance the Town will begin enforcement.</p>

			<p>(c) Grading and drainage plans are currently required by the Town for all commercial projects. The new ordinance will require all residential construction projects in excess of one acre to submit a drainage and grading plan.</p> <p>(d) All commercial applicants will be required to complete the Stormwater Post-Construction Evaluation form. Residential applicants are not required to complete the form as part of the initial application but may be required to during plan review.</p> <p>(e) Construction site inspections as required by Part I.D.5.a.(iii) are carried out by the Town. Several inspections are conducted over the construction project lifetime and include checking for compliance with the building permit, SWPPP review, and a final inspection of post-construction BMPs.</p>	
<p>2.2</p>	<p>57</p>	<p>Development of an ordinance or other regulatory mechanism as required in Part I.D.5.b.(ii)(b), to address post- construction runoff from new development and redevelopment projects to the extent allowable under</p>	<p>The Town is currently developing an ordinance to include requirements under this permit, for management of 80th and 90th percentile storm event discharge, for redevelopment and development sites, respectively.</p>	<p>The Town will submit a draft ordinance to include requirements under this permit for management of 80th and 90th percentile storm event discharge for redevelopment and</p>

		State, Tribal or local law. The ordinance or policy must incorporate a stormwater quality design standard, that manages on-site, the 90th percentile storm event discharge volume associated with new development sites and 80th percentile storm event discharge volume associated with redevelopment sites, through stormwater controls that infiltrate, evapo-transpire the discharge volume, except in instances where full compliance cannot be achieved, as provided in Part I.D.5.b.(v).		development sites, respectively, to the Town Council for approval.
2.3	58	Implementation and enforcement, via the ordinance or other regulatory mechanism, of site design standards as required in Part I.D.5.b.(ii)(b), 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.	The Town will implement and enforce new or modified ordinances which will include requirements under this permit for management of 80th and 90th percentile storm event discharge for redevelopment and development sites, respectively.	The Town will submit a draft ordinance to include requirements under this permit for management of 80th and 90th percentile storm event discharge for redevelopment and development sites, respectively, to the Town Council for approval.
2.4	59	Ensure appropriate implementation of post-construction structural controls as required in Part I.D.5.b.(ii)(c) and Part I.D.5.b.(ii)(d), including consideration of some or all of the following, pre-construction review of BMP designs,	As part of the development review process, construction project plans are reviewed and evaluated for opportunities to incorporate GI/LID/sustainable practices. Developers are encouraged to incorporate these practices where opportunities are available. All	The Town will begin enforcement of the new ordinance upon adoption by the Town Council. The Town will track the number of construction

inspections during construction to verify BMPs are built as designed, post-construction inspection and maintenance of BMPs, and penalty provisions for the noncompliance with preconstruction BMP design, failure to construct BMPs in accordance with the agreed upon pre-construction design, and ineffective post-construction operation and maintenance of BMPs.

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

commercial applicants must complete the Stormwater Post-Construction Evaluation form. Residential applicants are not required to complete the form as part of the initial application but may be required to during plan review.

Construction site inspections, as required by this Permit, are carried out concurrently with building code inspections by the Town. Several inspections are conducted over the construction project lifetime and include checking for compliance with the Construction General Permit, SWPPP review, and a final inspection of post- construction BMPs.

Maintenance responsibility of stormwater quality control facilities is the responsibility of the property owner up to the point where stormwater enters public facilities.

Penalties for non-compliance with the new ordinance will include liens against the property for reasonable costs associated with the remedy(ies), revocation or refusal to renew or issue any permit until appropriate remedies are made. The Town will review and update the post-construction program as necessary.

site inspections and will summarize inspections and inspection findings in the annual report. The Town will conduct an annual review and update to the post-construction program requirements as appropriate.

<p>2.5</p>	<p>60</p>	<p>Develop procedures as required in Part 1.D.5.B (ii). (e) - for educational program for project developers; Part 1.0.5 b.(ii). (f) - for site inspections and enforcement for long-term operation, maintenance and repair of BMPs; Part 1.D.5.b.(ii). (g) - for control of discharge related to pesticides, herbicides, and fertilizer; and Part 1.D.S.b. (ii). (h) - for review and update of the post-construction program.</p>	<p>All commercial applicants must complete the Stormwater Post Construction Evaluation form. Residential applicants are not required to complete the form as part of the initial application but may be required to during plan review. The Town will use checklists for building code and construction site inspections to ensure the checklists address requirements from this permit.</p> <p>Residential applicants are not required to complete the form as part of the initial application but may be required to during plan review. The Town will use checklists for building code and construction site inspections to ensure the checklists address requirements from this permit.</p> <p>The proposed ordinance will require all development and redevelopment projects with land disturbances equal to or greater than one acre, including sites which disturb less than one acre but are part of a larger common plan of development, to have post construction water quality BMPs.</p> <p>Maintenance responsibility of stormwater quality control facilities is the responsibility of the property owner up to the point where stormwater enters public facilities.</p> <p>During inspections, the Town will verify that all permits and certifications are in place. The Town will routinely review post-construction program procedures and make updates as necessary.</p> <p>Commercial application of pesticides is regulated by the New Mexico Department of Agriculture (NMDA). NMDA has authority over the distribution and use of all pesticides in the State. NMDA establishes certification requirements for pesticide applicators including a requirement for</p>	<p>The Town will include the MRGSWQT Outcomes Report in each Annual Report which will summarize, if applicable, the activities where educational materials were dispersed and shared with project developers.</p>
------------	-----------	---	--	---

			<p>continuing education. Additionally, under the Clean Water Act, pesticide applications to, over, or near water generally require a NPDES permit issued by the EPA. I.D.5.b.(ii)(e).</p> <p>As a cooperative program, The Town contributes to the MRGSWQT, which includes training on GI/LID and sustainability practices.</p> <p>I.D.5.b.(ii)(g) - The Town will only allow certified staff or professionally licensed contractors to apply herbicides within The Town of Bernalillo right-of-way. This is covered in TABLE 4 - Pollution Prevention/Good Housekeeping for Municipal/Co-permittee Operations - Part I.D.5.c.</p> <p>I.D.5.b.(ii)(h) - The Town of Bernalillo 's routine O&M activities address post-construction stormwater management at all Town-owned facilities. The Town of Bernalillo will continue to participate in the cooperative Middle Rio Grande Storm Water Quality Team (MRGSQT), along with the City of Albuquerque, NMDOT, AMAFCA, City of Rio Rancho, Sandoval County and Bernalillo County and any other entities joining the cooperative.</p>	
--	--	--	---	--

<p>2.6</p>	<p>61</p>	<p>Coordinate internally with all departments and boards with jurisdiction over the planning, review, permitting, or approval of public and private construction projects and activities within the permit area as required in Part I.D.5 b (iii) related to developed hydrology mimicking pre-development hydrology.</p>	<p>The Planning and Zoning Department reviews permit applications and grading and drainage plans for construction projects. The permits generally consist of building, zoning permits, floodplain development permits, zone changes and/or platting actions and are reviewed for compliance with guidance/regulatory documents such as the MS4 Permit, the drainage and street standards. This also includes consideration of potential water quality impacts and ensures compliance with floodplain and stormwater requirements. The Town will begin incorporating standard comments into the application and plans provided to include the requirement to retain 80th and 90th percentile storm runoff.</p> <p>Building and construction permits require SWPPPs for sites that disturb greater than one acre. The Town conducts on-site inspections to ensure compliance with drainage regulations.</p> <p>For all projects requiring a grading and drainage plan, the Town will require stormwater facilities that manage the 80th and 90th percentile rain events to drain within 96 hours per the OSE requirements.</p>	<p>The Town will coordinate with all internal departments for review of public and private construction projects/activities within its jurisdiction and will continue to work with the NM OSE to meet State water rights requirements.</p> <p>The Town will track site plan and grading and drainage plan reviews and include a summary in the annual report.</p>
------------	-----------	---	--	---

2.7	62	As required in Part I.D.5.b.(iv), the permittee must assess all existing codes, ordinances, planning documents and other applicable regulations, for impediments to the use of GI/LID/Sustainable practices.	<p>The Town will assess existing codes, ordinances, planning documents and other applicable regulations for impediments to the use of GI/LID/Sustainable practices.</p> <p>The NM OSE regulates the water delivery to the Rio Grande in order to meet water delivery requirements to Texas. Therefore, the Town's objective is to design its facilities to drain within 96 hours per the OSE requirements.</p>	Town of Bernalillo is currently assessing existing codes, ordinances, planning documents and other applicable regulations for impediments to the use of GI/LID/Sustainable practices.
2.8	63	As required in Part I.D.5.b.(iv), develop and submit a report of the assessment findings on GI/LID/Sustainable practices.	The Town is currently in the process of reviewing all existing codes, ordinances, planning documents and other regulations for impediments to the use of GI/LID/Sustainable practices.	The Town will develop and submit a report of the assessment findings on GI/LID/Sustainable practices. This will be reviewed and submitted to the EPA with the Annual Report, due annually on Dec. 1.
2.9	64	Estimation of the number of acres of IA and DCIA as required in Part I.D.5.b.(vi).	The Town is in the process of estimating the number of acres of IA and DCIA within Town Jurisdiction.	The Town will estimate the IA and DCIA within its jurisdiction. This will be done annually as part of the Annual Report preparation. This will be a cooperative effort with other Middle Rio Grande MS4s.
2.10	65	Inventory and priority ranking as required in Part I.D.5.b.(vii) for MS4-owned property and infrastructure (including public right-of-way) that may	The Town of Bernalillo is developing an inventory and a priority ranking of The Town of Bernalillo owned properties and facilities that may have the potential for retrofitted	The Town will continue to meet with MS4s to discuss areas requiring drainage and water quality retrofits,

		<p>have the potential to be retrofitted with control measures designed to control the frequency, volume, and peak intensity of stormwater discharges to and from its MS4.</p>	<p>control measures and stormwater quality facilities and BMPs.</p> <p>The Town will continue to meet with area MS4s to discuss areas requiring drainage and water quality retrofits, project priorities, and multi-agency funding.</p> <p>Internally, water quality projects and water quality retrofit projects will be prioritized. The Town will evaluate the existing BMPs based on their effectiveness and capacity in order to identify where additional BMPs are needed.</p> <p>The Town of Bernalillo will continue to invite all MS4s to the series of meetings for project planning on infrastructure retrofitting. The Town of Bernalillo is also a member of the MS4 TAG cooperative group.</p>	<p>project priorities, and multi-agency funding. The Town will summarize proposed and completed retrofit projects in the annual report. The County will continue membership and involvement in the cooperative MS4 Technical Advisory Group (MS4 TAG) which will facilitate an accurate inventory of MS4-owned property and infrastructure with regards to potential water quality retrofits and priority projects.</p>
<p>2.11</p>	<p>66</p>	<p>Incorporate watershed protection elements into regular planning or policy documents, as required in Part 1.0.5.b.(viii). As applicable to each permittee's MS4 jurisdiction, policy and/or planning documents must include the following:</p> <p>(a) A description of master planning and project planning procedures to control the discharge of pollutants to and from the MS4.</p>	<p>The Town currently reviews master planning documents as they pertain to drainage and stormwater quality infrastructure. MS4 requirements will be incorporated into the master plans during this review process. Master plans include, subdivision master plans and others.</p>	<p>The Town will continue to review master planning documents as they pertain to drainage and stormwater quality infrastructure and incorporate MS4 requirements as needed.</p>

	<p>(b) Minimize the amount of impervious surfaces (roads, parking lots, roofs, etc.) within each watershed, by controlling the unnecessary creation, extension and widening of impervious parking lots, roads and associated development.</p> <p>(c) Identify environmentally and ecologically sensitive areas that provide water quality benefits and serve critical watershed functions within the MS4 and ensure requirements to preserve, protect, create and/or restore these areas.</p> <p>(d) Implement stormwater management practices that minimize water quality impacts to streams, including disconnecting direct discharges to surface waters from impervious surfaces such as parking lots.</p> <p>(e) Implement stormwater management practices that protect and enhance groundwater recharge as allowed under the applicable water rights laws.</p>	<p>During grading and drainage review the Town will review plans for implementation of GI/LID and request incorporation of these ideas into the final project.</p> <p>During planning of projects, environmentally and ecologically sensitive areas that provide water quality benefits are considered.</p> <p>The Town will require post construction water quality BMPs for all development and redevelopment projects with land disturbances equal to or greater than one acre, including sites which disturb less than one acre but are part of a larger common plan of development, that discharge into the Town's storm drainage system.</p> <p>These BMPs are subject to the approval of the Town Engineer. Maintenance responsibility of stormwater quality control facilities will fall to the property owner up to the point where stormwater enters public facilities.</p> <p>The Town will develop water conservation standards and guidelines to provide direction to homeowners, builders, and developers and include BMPs for grading and stormwater management and water-conserving landscape design.</p>	<p>The Town will provide the number of projects that incorporated GI/LID practices in each annual report. The Town will evaluate modifying Town specifications to allow for installation of pervious parking lots.</p> <p>The Town will report the number of projects completed in environmentally and ecologically sensitive areas and what steps were taken (if any) to protect the area.</p> <p>The Town will use stormwater management practices that minimize water quality impacts to streams, including disconnecting direct discharges to surface waters from impervious surfaces if necessary.</p>
--	---	---	---

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

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

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

The NM OSE and ISC requires onsite stormwater facilities that retain the 80th and 90th percentile rain events to drain within 96 hour.

The Town will require GI/LID evaluation for all sites disturbing greater than one acre.

The Town will develop water conservation standards and guidelines to provide direction to homeowners, builders, and developers and includes BMPs for grading and stormwater management and water-conserving landscape design. The water-conserving site design attempts to imitate pre-development hydrology, allowing rainwater to collect and infiltrate at or close to where it falls. It also encourages the retention of natural arroyos and drainage ways.

The Town will develop water conservation standards and guidelines to provide direction to homeowners, builders, and developers and includes BMPs for grading and stormwater management and water-conserving landscape design. The water-conserving site design attempts to imitate pre-development hydrology, allowing rainwater to collect and infiltrate at or close to where it falls. It also encourages the retention of natural arroyos

The Town will continue to review master planning documents as they pertain to drainage and stormwater quality infrastructure and incorporate MS4 requirements as needed. The Town will continue to evaluate opportunities to prevent hydromodification in its own projects, as well as during review of master planning documents.

The Town will continue to review master planning documents as they pertain to drainage and stormwater quality infrastructure and incorporate MS4 requirements as needed. The Town will develop a terrain management plan for subdivision developments. The Town will review subdivision develops according to the terrain management plan. The Town will continue to evaluate opportunities to protect soils in its own projects, as well as during review of master

			<p>and drainage ways.</p> <p>The Town will modify existing ordinances to include the requirement of a terrain management plan for subdivision plat approval. The terrain management plan must include the subdivider's proposal for the control of floods, drainage and erosion, and measures required for adapting proposed development to existing soil characteristics and topography to include but not limited to a grading and drainage plan, a drainage report, a surface hydrology study, and a stormwater pollution prevention plan.</p> <p>The Town will amend its subdivision ordinance to include a requirement for a Terrain Management Plan, which shall consist of the subdivider's proposal for the control of flooding, drainage and erosion, and include measures for adapting the proposed development to existing soil characteristics and topography. In addition, a grading and drainage plan, a drainage study, a surface hydrology study, and a stormwater pollution prevention plan will also be required.</p>	
<p>Not Included in NOI</p>	<p>67</p>	<p>Update the SWMP document and annual (MS4) report as required in Part I.D.5.b (I) and Part I.D.5.b (x). The following information must be included in each annual report:</p> <p>(a) Include a summary and analysis of all maintenance, inspections and enforcement, and the number and frequency of inspections performed annually.</p> <p>(b) A cumulative listing of the annual modifications made to the Post-</p>	<p>The Town will update the SWMP as necessary to include a description of the mechanism(s) utilized to comply with each of the elements required in Part 1.0.5.b.(i) through 1.0.5.b.(viii)</p>	<p>The Town will update the SWMP as necessary to include description of the mechanism(s) utilized to comply with each of the elements required in Part 1.D.5.b.(i) through I.D.S.b.(viii)</p>

Construction Stormwater Management Program

(c) According to the schedule presented in Table 3, the permittee must

Report the number of MS4-owned properties and infrastructure that have been retrofitted with control measures designed to control the frequency, volume and peak intensity of stormwater discharges.

As required in Part 1.0.5.b (vi), report the tabulated results for IA and DCIA and its estimation methodology.

<p>2.12</p>	<p>68</p>	<p>Enhance the program to include the elements in Part I.D.5.b.(xi) and Part I.D.5.a.(xii) These include:</p> <p>(xi) Use of stormwater educational materials; and</p> <p>(xii) Develop or update existing construction handbooks; and</p> <p>(x) participate in watershed planning efforts to aid with BMP selection and planning.</p>	<p>The Town will continue to use stormwater educational materials, either developed locally or provided by EPA, NMED environmental, public interest, trade organizations and/or other MS4s. The Town will continue to participate in the watershed-planning efforts with other MS4s.</p> <p>The Town will continue membership and involvement in the cooperative MS4 Technical Advisory Group (MRGTAG) which will facilitate cooperation and coordination with other MS4s in the Middle Rio Grande.</p>	<p>The Town will include the MRGSWQT Outcomes Report in each Annual Report which will summarize the activities where educational materials were dispersed and shared with the public.</p> <p>The Town will continue to contribute and participate in the MRGSWQT, which supports post-construction programs.</p> <p>The Town will participate in meetings regarding watershed planning efforts. The Town will continue to produce and publish the Town of Bernalillo ICIP annually.</p> <p>The Town will continue membership and involvement in the cooperative MS4 Technical Advisory Group (MS4 TAG) which will facilitate cooperation and coordination with other MS4s in the Middle Rio Grande.</p>	
-------------	-----------	---	---	---	--

		69 TABLE 4: Pollution Prevention/Good Housekeeping for Municipal/Co-permittee Operations - Part I.D.5.c		
3.1	70	<p>Develop or update a Pollution Prevention/Good Housekeeping program to include the elements in Part I.D.5.c.(i), including:</p> <p>(a) an employee training program to incorporate pollution prevention and good housekeeping, including a tracking procedure (Part I.D.5.c.(i)(a)); and</p> <p>(b) O&M activities, schedules, and long term inspection procedures for structural and non-structural stormwater controls (Part I.D.5.c.(i)(b)); and</p>	<p>The Town of Bernalillo will develop a Pollution Prevention and Good Housekeeping Program Plan. The Plan will include employee training and BMPs for O&M activities. The training will address maintenance procedure implementation and inspection as well as pollution prevention and spill awareness.</p> <p>Town parking lots and yards have been designed to contain the majority of stormwater runoff using stormwater channeling and detention ponds.</p> <p>Maintenance activities for these facilities occurs on a routine basis and following rain events and includes sediment, floatables, trash, and debris removal, mowing and</p>	<p>The Town will develop and adhere to a Pollution Prevention and Good Housekeeping Program Plan that includes procedures, instructions, record keeping and BMP requirements for Town facilities.</p> <p>The Town will continue to review flood control projects through the Grading and Drainage review process, which includes MS4 Permit requirements.</p>

		<p>(c) Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, fleet or maintenance shops, outdoor storage areas, salt/sand storage locations, snow disposal areas, and waste transfer stations (Part I.D.5.c.(i)(c)); and</p> <p>(d) Procedures for properly disposing of waste removed from Town facilities (sediment, floatables, and other debris) (Part I.D.5.c.(i)(d)); and</p> <p>(e) procedures to ensure that new flood management projects assess the impacts on water quality and examine existing projects for incorporating additional water quality protection devices or practices (Part I.D.5.c.(i)(e)).</p>	<p>vegetation control (tree trimming, debris removal), fence and gate repair, and erosion repair.</p> <p>Town parking lots and yards have been designed to contain the majority of stormwater runoff using stormwater channeling and detention ponds. Materials stored at maintenance and storage yards are kept indoors or under covered areas. In areas where materials are not covered, BMPs such as berms are used to ensure that stormwater runoff that could come in contact with these materials does not leave the site. The Town has no waste transfer stations within its jurisdictional area.</p> <p>The disposed floatable material, sediment, and debris removed from the storm sewer system are typically taken to the landfill.</p> <p>The majority of flood management projects in the Town are constructed by either ESCAFCA or SSCAFCA. These flood control projects are coordinated through cooperative efforts with other co-permittees as needed.</p>	
3.2	71	<p>Enhance the program to include the elements in Part I.D.5.c.(ii). These include:</p>	<p>The Town will create, maintain, and update a list and maps of all stormwater quality facilities as needed.</p>	<p>The Town will create, maintain, and update a list and maps of all stormwater</p>

		(a) Develop or update the existing list of all stormwater quality facilities by drainage basin, including location and description; and		quality facilities as needed.
3.2	72	(b) Develop or modify existing operational manual for de-icing activities addressing alternate materials and methods to control impacts to stormwater quality; and	The Town will develop procedures for deicing activities. During development of the procedures the Town will evaluate alternative materials and methods for cost effectiveness.	The Town will evaluate its winter maintenance program and will look at the feasibility of using alternative materials where not cost prohibitive. The County will assess and modify the current practices as necessary.
3.2	73	(c) Develop or modify the existing program to control pollution in stormwater runoff from equipment and vehicle maintenance yard; and	<p>The Town follows BMPs to minimize impacts to stormwater quality from the Public Works Yard. The Town contracts fleet maintenance. Fluids such as oils, chemicals and paints used by facilities management, parks and recreation, and other departments are stored in sealed containers and kept indoors or under covered areas.</p> <p>The Public Works yard has been designed to contain the majority of stormwater runoff using stormwater channeling and detention ponds. In areas where some materials are not covered, BMPs such as berms are used to ensure that stormwater runoff that could come in contact with these materials does not leave the site.</p>	The Town will continue to follow BMPs in place for minimizing impacts to stormwater quality from the Town equipment. The Town will assess and modify the current practices as necessary.
3.2	74	(d) Develop or modify existing street sweeping program. Assess possible benefits from changing frequency or timing of sweeping activities or utilizing different equipment for sweeping activities; and	The Town does not currently have street sweeping program. At such times and funds become available to purchase street sweeping equipment the Town will develop a program.	The Town will develop a street sweeping program when funds become available for equipment.

3.2	75	(e) A description of procedures used by permittees to target roadway areas most likely to contribute pollutants to and from the MS4 (i.e., runoff discharges directly to sensitive receiving water, roadway receives majority of de-icing material, roadway receives excess litter, roadway receives greater loads of oil and grease), and	The Town will develop and implement procedures for targeting roadways most likely to contribute pollutants to and from the MS4.	
3.2	76	(f) Develop or revise existing standard operating procedures for collection of used motor vehicle fluids (at a minimum oil and antifreeze) and toxics (including paint, solvents, fertilizers, pesticides, herbicides...) used in permittee operations; and	The Town follows BMPs to minimize impacts to stormwater quality from the County Public Works Yard. Fluids such as oils, chemicals, and paints used by facilities management, parks and recreation, and other departments are stored in sealed containers and generally kept indoors, under covered areas, or within a secondary containment structure. The New Mexico Department of Agriculture (NMDA) hosts free pesticide collection events annually to promote the proper and safe disposal.	The Town will summarize annual waste collection activities in the Annual Report.
3.2	77	(g) Standard operating procedure for disposal of accumulated sediments, floatables, and debris; and	The Town of Bernalillo will develop procedures for disposal of accumulated sediments, floatables, and debris.	Implement procedures for disposal of accumulated sediments, floatables, and debris.
3.2	78	(h) litter source control program, include targeted public awareness campaign; and	Through involvement in the MRGSWQT, The Town of Bernalillo will continue to collaborate with the MS4 permittees to improve upon the existing litter source control program, including a targeted public awareness campaign.	Town of Bernalillo will continue its involvement with and financial support of the MRGSWQT.

				<p>The Town will continue to collaborate with the MS4 permittees to improve upon the existing litter source control program.</p> <p>The MRGSWQT Outcomes Report will be submitted in the Annual Report.</p>
3.2	79	(i) Develop or review and revise, as necessary, the criteria, procedures and schedule to evaluate existing flood control devices, structures and drainageways to assess the potential of retrofitting to provide additional pollutant removal from stormwater. Implement routine review to ensure new and/or innovative practices are implemented where applicable; and	The Town will develop the criteria, procedures and, schedule to evaluate existing flood control devices, structures and drainageways to assess the potential of retrofitting to provide additional pollutant removal from stormwater. The Town will also implement routine review to ensure that new and/or innovative practices are implemented where applicable.	The Town will continue to meet with agencies and private developers within its jurisdiction to discuss the areas requiring drainage and water quality retrofitting.
3.2	80	j) Enhance inspection and maintenance programs by coordinating with maintenance personnel to ensure that a target number of structures per basin are inspected and maintained per quarter; and	The Town will enhance its inspection and maintenance programs, as required by the MS4 Permit, through improved coordination with the Public Works Director, Planning and Zoning Director and Code Enforcement.	<p>The Town will inspect drop inlets and drainage ways such that one quarter of the existing structures are inspected quarterly.</p> <p>Note: the Town does not own any stormwater detention facilities.</p>
3.2	81	(k) Enhance the existing program to control the discharge of floatables and trash from the MS4 by implementing source control of floatables in industrial	The Town will continue coordination with the MRG MS4s, as well as involvement with the MRGSWQT and the MS4TAG, to enhance the program to control the	The Town will continue its involvement with and financial support of the MRGSWQT.

		and commercial areas; and	discharge of floatables and trash from the MS4 by implementing source control of floatables in industrial and commercial areas.	The Town will continue to collaborate with the MS4 permittees to improve upon the source control of floatables in industrial and commercial areas. The Town will continue membership and involvement in the cooperative MS4 Technical Advisory Group (MS4 TAG).
3.2	82	(l) Include in each annual report, a cumulative summary of retrofit evaluations conducted during the permit term on existing flood control devices, structures and drainage ways to benefit water quality. Update the SWMP to include a schedule (with priorities) for identified retrofit projects; and	The Town will continue to meet with area MS4s to discuss areas requiring drainage and water quality retrofits, project priorities, and multi-agency funding.	Include a cumulative list of retrofitted Town facilities in each annual report The Town will update the SWMP to include a retrofit schedule (if any facilities require retrofitting), once developed.
3.2	83	(m) Flood management projects: review and revise, as necessary, technical criteria guidance documents and program for the assessment of water quality impacts and incorporation of water quality controls into future flood control projects. The criteria guidance document must include the following elements: A. Describe how new flood control projects are assessed for water quality impacts.	The Town of Bernalillo Jurisdictional area is overlapped By ESCFCA and SSCAFCA. Each of these entities are responsible for constructing flood management projects. The Town will work with ESCAFCA and SSCAFCA to review and revise, as necessary, technical criteria guidance documents and program for the assessment of water quality impacts and incorporation of water quality controls into flood control projects. The Town will mimic the criteria guidance of these entities.	The Town will work with ESCAFCA and SSCAFCA to review and revise, as necessary, technical criteria guidance documents and program for the assessment of water quality impacts and incorporation of water quality controls into flood control projects.

		<p>B. Provide citations and descriptions of design standards that ensure water quality controls are incorporated in future flood control projects.</p> <p>C. Include method for permittees to update standards with new and/or innovative practices.</p> <p>D. Describe master planning and project planning procedures and design review procedures; and</p>		
3.2	84	<p>(n) Develop procedures to control the discharge of pollutants related to the storage and application of pesticides, herbicides, and fertilizers applied, by the permittee's employees or contractors, into public right-of-way, parks and other municipal property.</p> <p>The permittee must provide an updated description of the data monitoring system for all permittee departments utilizing pesticides, herbicides and fertilizers.</p>	<p>Commercial application of pesticides is regulated by the New Mexico Department of Agriculture (NMDA). NMDA has authority over the distribution and use of all pesticides in the state. NMDA establishes certification requirements for pesticide applicators including a requirement for continuing education. Additionally, under the Clean Water Act, pesticide applications to, over, or near water generally require a NPDES permit issued by the EPA. During inspections, the Town will verify that all permits and certifications are in place. The Town will only allow certified staff or professionally licensed contractors to apply herbicides within Town limits.</p>	<p>The Town will only allow professional licensed contractors to apply herbicides and pesticides within Town of Bernalillo right-of-way.</p>
3.3	85	<p>Develop or update a list and a map of industrial facilities owned or operated by the permittee as required in Part I.D.5.c.(iii).</p>	<p>N/A - no EPA Multi Sector General Permit (MSGP) within The Town of Bernalillo right-of-way. This was submitted to EPA in The Town of Bernalillo's NOI and accepted.</p>	<p>N/A</p>
Not Included in	86	<p>Update the SWMP document and annual</p>	<p>The Town of Bernalillo's Public Works Director will review the program requirements listed in</p>	<p>The Town's Public Works Director will</p>

NOI		report as required in I.D.S.c.(IV) and Part I.D.5 c (v). The permittee must include in the SWMP a description of the mechanism(s) utilized to comply with each of the elements required in Part I.D.5.c.(i) through Part I.D.5.c.(iii) and its corresponding measurable goal. The permittee shall assess the overall success of the program, and document the program effectiveness in the annual report.	Part I.D.5.c, for the above-mentioned SWMP elements, during the annual report process. A strategy to implement any new program requirements will be developed as needed	review the program requirements listed in Part I.D.5.c, for the above-mentioned SWMP elements, during the annual report process. A strategy to implement any new program requirements will be developed as needed	
	87	TABLE 5: Industrial and High Risk Runoff - Part I.D.5.d			
4	88	As described in Part I.D.5.d, the permittees shall control through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by stormwater discharges associated with industrial activity and the quality of stormwater discharged from sites of industrial activity as defined in 40 CFR 122.26(b)(14)(i)-(ix) and (xi). If no such industrial activities are in a permittees jurisdiction, that permittee may certify that this program element does not apply.	Permit requires this element for Class A permittees only. The Town of Bernalillo is a Class B permittee.	N/A	
	89	TABLE 6: Illicit Discharges and Improper Disposal - Part I.D.5.e			
See NOI Sections Below	90	As described in Part I.D.5.e.(i), the permittee shall develop, revise, implement, and enforce a program to	The Town of Bernalillo has developed a program to detect and eliminate illicit discharges. The program elements, as they relate to the permit requirements,	The Town of Bernalillo Public Works Director will continue to review, revise, and implement	

		detect and eliminate illicit discharges (as defined at 40 CFR 122.26(b)(2)) entering the MS4. The permittee must (see required items listed below):	are described in detail below.	the Illicit Discharge Detection and Elimination Program requirements.
5.1	91	Mapping, as required in Part I.D.5.e.(i)(a): Develop, if not already completed, a storm sewer system map, showing the names and locations of all outfalls as well as the names and locations of all waters of the United States that receive discharge from those outfalls. Identify all discharge points into major drainage channels that drain more than twenty percent (20%) of the MS4 area.	The Town has developed a storm sewer system map with names and locations of all outfalls and waters of the United States that receive discharge from the outfalls. This map is updated as needed. The Town does not have any major drainage channels that drain more than 20% of the MS4 area.	The Town will continue to keep the storm sewer system map up-to-date. Cooperation with other MS4s will continue related to this map.
5.2	92	Ordinance (or other control method) as required in Part I.D.5.e.(i)(b).	The Town is currently developing and modifying ordinances to address stormwater quality protection. These ordinances and/or revisions will include the requirements under this permit to prohibit non-stormwater discharges and implement appropriate enforcement procedures. The Town of Bernalillo Weed and Litter Ordinances also address illegal dumping and disposal and provide a current regulatory mechanism for addressing and enforcing IDDE requirements.	The Town ordinances will be enforced upon completion and adoption.
5.3	93	Develop and implement an IDDE plan as required in Part I.D.5.e.(i)(c). The permittee must include the following	The Town of Bernalillo will continue to finalize and implement an IDDE program. As shown in the Draft IDDE program, the Town will	The Town will continue developing and will implement an IDDE program.

		<p>elements in the plan:</p> <p>Procedures for locating priority areas likely to have illicit discharges including field test for selected pollutant indicators (ammonia, boron, chlorine, color, conductivity, detergents, E. coli, enterococci, total coliform, fluoride, hardness, pH, potassium, conductivity, surfactants), and visually screening outfalls during dry weather;</p> <p>Procedures for enforcement, including enforcement escalation procedures for recalcitrant or repeat offenders;</p> <p>Procedures for removing the source of the discharge;</p> <p>Procedures for program evaluation and assessment; and</p> <p>Procedures for coordination with adjacent municipalities and/or state, tribal, or federal regulatory agencies to address situations where investigations indicate the illicit discharge originates outside the MS4 jurisdiction.</p>	<p>develop procedures for locating priority areas; enforcement and enforcement escalation; removal of discharge source; program evaluation and assessment; and coordination with SSCAFCA, ESCAFCA, and NMDOT.</p>	<p>The Town will finish developing a written procedure for this program element.</p> <p>The Town will continue membership and involvement in the cooperative MS4 Technical Advisory Group (MS4 TAG), which will facilitate cooperation and coordination with other MS4s in the Middle Rio Grande related to the IDDE program.</p> <p>The Town is pursuing the development of a cooperative program for this program element with permittees located within Town of Bernalillo's jurisdiction.</p>
5.4	94	<p>Develop an education program, as required in Part I.D.S.e.(i)(d). Develop an education program to promote, publicize and facilitate public reporting</p>	<p>The Town of Bernalillo will continue to participate in the MRGSQT and collaborate with the MS4 permittees to provide educational information regarding storm</p>	<p>The Town of Bernalillo will continue its involvement with, and financial support of, BEMP and River Xchange</p>

		of illicit connections or discharges, and distribution of outreach materials. The permittee shall inform public employees, businesses and the general public of hazards associated with illegal discharges and improper disposal of waste.	water 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.	through the MRGSWQT. The Town will work with the MRGSWQT to inform the general public of the hazards associated with illegal discharges and improper disposal of waste. The MRGSWQT Outcomes Report will be submitted in the Annual Report. The Town will continue an in-house training program for its field employees regarding illegal discharges and improper disposal of waste.
5.5	95	Establish a hotline as required in Part I.D.5 e.(i)(e).	Residents of the Town currently contact the water department concerning all issues with the Town's Infrastructure (water leaks, trash on right-of-way, weeds, light outages, etc.). During working hours, the water department prioritizes the calls and contacts either the Public Works Director or Public works supervisor(s). During non-working hours, callers are informed to call non-emergency dispatch. Dispatch contacts the on-call employee for each type of issue. This process is well established and the Town will incorporate illicit discharges into the process.	The Town will continue to respond to the information received from calls to the water department or dispatch.
5.6	96	Investigate suspected significant/severe, illicit discharges as required in Part 1.D S.e.(i)(f).	The Town has included in the draft IDDE plan a requirement of investigation of suspected significant/severe, illicit discharges	The Town's IDDE plan will include investigation of suspected significant/severe,

		<p>Investigate suspected significant/severe illicit discharges within forty-eight (48) hours of detection and all other discharges as soon as practicable; elimination of such discharges as expeditiously as possible; and, requirement of immediate cessation of illicit discharges upon confirmation of responsible parties.</p> <p>"Illicit Discharge" is defined in 40 CFR 122.26(b)(2) as "any discharge to a municipal separate storm sewer that is not composed entirely of stormwater, except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from firefighting activities."</p>	<p>within forty-eight (48) hours of detection/reporting and all other discharges as soon as practicable</p> <p>The Town plans to continue removing/treating such discharges as expeditiously as possible and requiring immediate cessation of illicit discharges upon confirmation of responsible parties. The Town of Bernalillo will continue to develop procedures for illicit discharge investigation and use of its IDDE Incident Report Form.</p> <p>"Illicit discharge" also covers illegal or improper disposal or dumping of wastes into The Town of Bernalillo facilities. For the Town of Bernalillo, "illicit discharges" typically fall into two categories: (1) liquid discharge, or (2) solid discharge (dumped trash, debris, dirt/sediment, tires). Liquid discharges are considered urgent in order to quickly determine if they are significant/severe illicit discharges and are investigated within forty-eight (48) hours of detection. Solid discharge are investigated and identified for clean-up when identified by staff or reported by a resident.</p>	<p>illicit discharges within 48 hours of detection and all other discharges as soon as practicable.</p> <p>Town of Bernalillo will investigate and document all applicable illicit discharge complaints (using IDDE Incident Report Form) received through the water department or non-emergency dispatch, as well as other complaints received directly by Town of Bernalillo staff through e-mail, phone, or observation.</p> <p>The Town will continue membership and involvement in the cooperative MS4 Technical Advisory Group (MS4 TAG).</p> <p>The Town will develop a written procedure for this program element and develop a field form for gathering applicable information regarding reported IDDE.</p>
5.7	97	<p>Review complaint records and develop a targeted source reduction program as required in Part I.D.5.e.(i)(g). Review complaint records for the last permit</p>	<p>The Town of Bernalillo will review complaint records. In addition, complaint records that are determined to be illicit discharges will be added to the Town of Bernalillo GIS database.</p>	<p>Town of Bernalillo will ensure polices include review of complaint records. This will include a focus on illicit</p>

		<p>term and develop a targeted source reduction program for those illicit discharge/improper disposal incidents that have occurred more than twice in two (2) or more years from different locations.</p>	<p>The location, date, type of illicit discharge, and source (if known) will be documented. To meet the Permit requirements in Table 1.a (Part I.C.2), regarding discharges to impaired waters with a TMDL (E.coli), the Town of Bernalillo's review of complaint records will include a focus on illicit discharges contributing bacteria to the MS4. The Town will develop a targeted source reduction program for those illicit discharge/improper disposal incidents that have occurred more than twice in 2 or more years from different locations.</p>	<p>discharges contributing bacteria to the MS4.</p> <p>Annually, Town of Bernalillo will reevaluate its targeted source reduction program. Potential future targets will be determined and cooperative efforts for targeted source reduction programs with MRGSWQT members will be considered.</p> <p>The Town will continue adding illicit discharge complaint records for the permit term to the Town 's GIS database to help identify sources and trends.</p> <p>The Town will continue developing a cooperative for this program element.</p>
<p>Not Included in NOI</p>	<p>98</p>	<p>As required in Part I.D.5.e.(ii), the permittee shall address the following categories of non-stormwater discharges or flows (e.g., illicit discharges) only if they are identified as significant contributors of pollutants to the MS4: water line flushing, landscape</p>	<p>Any such discharge that is identified as a significant contributor of pollutants to the Town of Bernalillo's MS4, or is causing or contributing to a water quality standards violation, will be addressed as an illicit discharge pursuant to the consequences established in the ordinance for illicit discharges.</p>	<p>The Town of Bernalillo Public Works Director will review this list annually to check that the categories of authorized non-stormwater discharges are still not considered significant</p>

		<p>irrigation, diverted stream flows, rising ground waters, uncontaminated groundwater infiltration (as defined at 40 CFR 35 2005(90)), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water</p> <p>Note: Discharges or flows from firefighting activities are excluded from the effective prohibitions against non-stormwater discharges and need only be addressed where they are identified a significant sources of pollutants to waters of the United States).</p>		<p>contributors of pollutants to the MS4.</p>
5.8	99	<p>As required in Part 1.0.5.e (iii), the permittee must screen the entire jurisdiction at least once every five (5) years and high priority areas at least once every year.</p> <p>High priority areas include any area where there is ongoing evidence of illicit discharges or dumping, or where there are citizen complaints on more <u>than five (5) separate events within twelve (12) months</u>.</p>	<p>The Town of Bernalillo will continue to make progress with developing the IDDE activities and program, working toward the permit deadlines described for this permit activity.</p> <p>Part 1.0.5.e.(ii)(a) - IDDE screening methods, quality assurance and controls protocols, schedule for successfully implementing the required screening, field monitoring, laboratory analysis, investigations, and analysis evaluation of data collected will be developed in years 1-3 of the Permit.</p>	<p>The Town will develop screening procedures, protocols and a plan in years 1-3 of the Permit.</p>

	<p>The permittee must:</p> <ul style="list-style-type: none"> (a) Include in its SWMP document a description of the means, methods, quality assurance and controls protocols, and schedule for successfully implementing the required screening, field monitoring, laboratory analysis, investigations, and analysis evaluation of data collected. (b) Comply with the dry weather screening program established in Table 6 and the monitoring requirements specified in Part 111.A.2. (c) If applicable, implement the priority ranking system developed in previous permit term. 	<p>Part I.D.5.e.(ii)(b) - Development of the screening procedures and protocols will comply with the dry weather screening program monitoring requirements specified in Table 6 and Part 111.A.2. Due to the nature of the climate in the Middle Rio Grande, screening will consist primarily of visual inspection of outfalls to arroyo beds. Since all channels under The Town of Bernalillo's jurisdiction are ephemeral, identification of moisture in these arroyos outside of wet weather events will require field investigation to determine the source of the discharge.</p> <p>Part I.D.5.e.(ii)(c) - For the Town of Bernalillo, the priority ranking is not applicable but, as part of a cooperative program, the Town will follow the cooperative priority ranking.</p>	<p>The Town will complete the IDDE required screening activities for 70% of the AMAFCA MS4 system by the end of year 5 for this Permit (Dec. 22, 2019).</p> <p>Town of Bernalillo will continue membership and involvement in the cooperative MRGSWQT which will facilitate cooperation and coordination with other MS4s in the Middle Rio Grande related to screening for illicit discharges.</p> <p>The Town is pursuing developing a cooperative for this program element, including implementing the priority ranking system.</p>
--	---	--	---

<p>5.9</p>	<p>100</p>	<p>Develop, update, and implement a Waste Collection Program as required in Part I.D 5.e.(iv).</p>	<p>The Town of Bernalillo currently has a waste collection ordinance.</p> <p>The Town contracts with local waste haulers to collect from the Towns jurisdictional area. The Town will work with Sandoval County, the City of Rio Rancho and Village of Corrales to expand the Hazardous Household Waste collection program.</p>	<p>The Town will work with Sandoval County to increase the number of Household Hazardous Waste collection days hosted</p> <p>The Town will continue working with the other permitted MS4's in the watershed on watershed clean-up events.</p>
<p>5.10</p>	<p>101</p>	<p>Develop, update and implement a Spill Prevention and Response program to prevent, contain, and respond to spills that may discharge into the MS4 as required in Part I.D.5.e.(v). The Spill Prevention and Response program shall include:</p> <p>(a) Where discharge of material resulting from a spill is necessary to prevent loss of life, personal injury, or severe property damage, the permittee(s) shall take, or ensure the party responsible for the spill takes, all reasonable steps to control or prevent any adverse effects to human health or the environment; and</p> <p>(b) The spill response program may include a combination of spill response actions by the permittee (and/or another public or private entity), and legal requirements for private entities within the permittee's municipal jurisdiction.</p>	<p>The Town of Bernalillo Public Works Department and Fire Department will formalize the existing spill response program to incorporate requirements of the permit. The Town works in conjunction with the City of Rio Rancho, Sandoval County, and New Mexico State Police.</p>	<p>The Town will formalize the existing spill response program</p> <p>The Town will continue to cooperate with overlapping jurisdictions for spill response.</p> <p>The Town will continue membership and involvement in the cooperative MS4 Technical Advisory Group (MS4 TAG) and the MRGSWQT which will facilitate cooperation and coordination with other MS4s in the Middle Rio Grande related to spill prevention and response.</p>

<p>Not Included in NOI</p>	<p>102</p>		<p>The Town of Bernalillo will continue screening the entire jurisdiction at least once every 5 years and high priority areas at least once every year in accordance with the permit requirements. The Town of Bernalillo will review the program requirements listed in Part I.D.5.e, for the above-mentioned program elements, during the Annual Report process. A review of the screening completed and the data collected will be included in the Annual Report. A strategy to implement any new program requirements will be developed as needed.</p>	<p>As part of the Annual Report process each year, the Town will review the program requirements listed in Part I.D.5.e, for the above-mentioned SWMP elements, and develop a strategy, if applicable, to implement any new program requirements.</p> <p>The Town of Bernalillo will include a review of the screening completed and the data collected will be included in the Annual Report.</p>
<p>5.11</p>	<p>103</p>	<p>Enhance the program to include requirements in Part I.D.5.e.(ix). The permittee may: (a) Divide the jurisdiction into assessment areas where monitoring at fewer locations still provides sufficient information;</p>	<p>Part I.D.5.e.(ix). The Town may enhance the program to include requirements in Part I.D.5.e.(ix) as needed.</p>	<p>The Town will document enhancements made with enhancement activities in the SWMP and Annual Report.</p>

		<p>(b) Downgrade high priority areas after the area has been screened at least once and there are citizen complaints on no more than 5 separate events within a 12-month period,</p> <p>(c) Rely on a cooperative program with other MS4s for detection and elimination of illicit discharges and illegal dumping;</p> <p>(d) If participating in a cooperative program with other MS4's, required detection program frequencies may be based on the combined jurisdictional area rather than individual jurisdictional areas to reduce total number of screening locations;</p> <p>(e) After screening a non-high priority area once, adopt an "in response to complaints only" IDDE for that area (no more than 2 separate events within a 12-month period);</p> <p>(f) Enhance the program to utilize methodologies consistent with those described in "Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments."</p>			
	104	TABLE 7: Control of Floatables Discharges - Part I.D.5.f.			
6.1	105	As required in Part I.D.5.f.(i), the permittee must develop, update, and implement a program to address and control floatables in discharges into the MS4. The floatables control program shall include source controls and, where necessary, structural controls.	The Town will continue to implement a program to address and control floatables in discharges into the MS4. The Town will continue to require installation of stormwater quality features such as screened inlets and water quality manholes in both new construction and retrofits where appropriate.	The Town will continue to review, revise, and implement a program to address and control floatables in discharges into the MS4. The Town will develop a written procedure for this program element.	

		The permittee shall develop or update a schedule to implement as required in Part I.D.5.f.(i)(a).	The Town will continue manual trash removal on a regular basis from drop inlets and water quality manholes.	The Town will continue membership and involvement in the cooperative MS4 Technical Advisory Group (MS4 TAG), which will facilitate cooperation and coordination with other MS4s in the Middle Rio Grande related to control of floatables discharges. Town of Bernalillo is pursuing developing a cooperative program for this program element.
6.2	106	Estimate the annual volume of floatables and trash removed from each control facility and characterize the floatable type as required in Part I.D.5.f.(i)(b).	The Town will monitor the amount of floatables and trash removed from drop inlets and water quality manholes and characterize the type.	The Town will report the estimated amount of floatables and trash removed from drop inlets and water quality manholes and characterize by type.
Not Included in NOI	107	Update the SWMP document and annual report as required in Part I.D.5.f.(ii) and Part 1.D.5.f.(iii).	The Town's Public Works Director will review the program requirements listed in Part I.D.5.f, for the above-mentioned program elements, during the Annual Report process. A strategy to implement any new program requirements or improve the compliance with program requirements will be developed as needed.	As part of the Annual Report process each year, the Public Works Director will review the program requirements listed in Part I.D.5.f, for the above-mentioned SWMP elements, and assess the overall success of the program and document the program effectiveness in the Annual Report.

		TABLE 8: Public Education and Outreach on Stormwater Impacts - Part 1.0.5.g		
	108			
7.1	109	<p>Develop, revise, implement, and maintain an education and outreach program as required in Part 1.D.5.g.(I) and Part 1.D.5.g.(II). This comprehensive stormwater program should educate the community, employees, businesses, and the general public of hazards associated with the illegal discharges and improper disposal of waste and about the impact that stormwater discharges on local waterways, as well as the steps that the public can take to reduce pollutants in stormwater</p>	<p>Through involvement in the MRGSWQT, the Town will continue to collaborate with the MS4 permittees to improve upon the existing public education and outreach program.</p> <p>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 estimate of people reached.</p> <p>Target pollutants including pet waste and trash/debris. These pollutants were chosen on the basis of studies conducted in the previous permit cycle.</p> <p>Continue the "Poop Fairy" public outreach campaign at targeted Town-owned facilities.</p> <p>Currently, 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 and a Facebook page.</p>	<p>The Town will contribute to and participate in the MRGSWQT.</p> <p>The MRGSWQT Outcomes Report will be submitted in the Annual Report.</p> <p>The Town will continue to conduct education and outreach presentations to the community specific to Town facilities and water quality.</p>

<p>7.2</p>	<p>110</p>	<p>Update the SWMP document and annual report as required in Part I.D.5.g.(iii) and Part I.D.5.g.(iv)(iii). The permittee must include the following information in the SWMP document:</p> <p>(a) A description of a program to promote, publicize and facilitate public reporting of the presence of illicit discharges or water quality associated with discharges from MS4s; and</p> <p>(b) A description of the education activities, public information activities and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials; and</p> <p>(c) A description of the mechanism(s) utilized to comply with each of the elements required in Part I.D.5.g.(i) and Part I.D.5.g.(ii) and its corresponding measurable goal.</p> <p>The permittee must assess the overall success of the program and document both direct and indirect measurements of program effectiveness in the Annual Report.</p>	<p>The Town of Bernalillo's Public Works Director will review the program requirements listed in Part I.D.5.g, for the above-mentioned program elements, during the Annual Report process. A strategy to implement any new program requirements or improve compliance with the program requirements will be developed as needed.</p>	<p>As part of the Annual Report process each year, the Public Works Director will review the program requirements listed in Part I.D.5.g, for the above-mentioned SWMP elements, and assess the overall success of the program and document direct and indirect measurements of the program effectiveness in the Annual Report.</p>
------------	------------	--	--	---

<p>7.2</p>	<p>111</p>	<p>Enhance the program to include requirements in Part I.D 5.g (v) through Part I.D.S.g.(viii).</p> <p>Where necessary to comply with the MS4 Permit, the permittee should develop a program or modify/revise an existing education and outreach program to:</p> <p>(a) promote, publicize and facilitate the use of GI/LID/Sustainability practices; and</p> <p>(b) Include an integrated public education program regarding litter reduction, reduction in pesticide/herbicide use, recycling and disposal of yard waste, hazardous waste and used motor vehicle fluids and GI/ LID/ sustainable practices (as allowed by the NMOSE).</p> <p>(c) The permittee may collaborate or partner with other MS4 operators to maximize the program and cost effectiveness of the required outreach.</p> <p>(d) The education and outreach program may use citizen hotlines as a low-cost strategy to engage the public in illicit discharge surveillance.</p> <p>(e) The permittee may use stormwater educational materials provided by the State, Tribe, EPA, environmental, public interest or trade organizations, or other MS4s. The permittee may also integrate the education and outreach program with existing education and outreach programs in the MRG area.</p>	<p>The Town of Bernalillo will continue to include in its (and in the cooperative MRGSWQT) public education and outreach program: GI/LID/sustainability, litter reduction, pesticide/herbicide proper use and reduction, recycling and proper disposal, public hotline for illicit discharge reporting, classroom education on stormwater, sponsorship of professional conferences, participation in regional events, and pet waste disposal education.</p>	<p>If enhancement activities are implemented, the Town will annually document progress made with these program enhancement activities.</p>
------------	------------	---	---	--

<p>8.1</p>	<p>112</p>	<p>TABLE 9: Public Involvement and Participation - Part I.D.5.h</p> <p>Develop (or update), implement and maintain a public involvement and participation plan as required in Part I.D.5.h (ii). This plan should provide opportunities for participation in the review, modification and implementation of the SWMP.</p> <p>Develop and implement a process by which public comments to the plan are received and reviewed by the person(s) responsible for the SWMP and make the SWMP available to the public and to the operator of any MS4 or Tribal authority receiving discharges from the MS4.</p>	<p>The Town of Bernalillo will continue its Public Involvement and Participation program to encourage public involvement in the review, modification and implementation of the SWMP, as required in Part I.D.5.h.(ii).</p>	<p>Post the draft SWMP, any SWMP amendments or modifications and Annual Reports to the Town's website with an explanation of the public comment period and instructions on how to submit comments. The posted documents will show redline and strikethrough of text additions and deletions and/or provide explanations for substantial changes.</p> <p>A 30-day comment period will be allotted for SWMP document public review.</p> <p>A 45-day comment period will be allotted for Annual Report public review as required in Part 111.B of the MS4 Permit.</p>
<p>8.1</p>	<p>113</p>	<p>As required in Part I.D.5.h.(iii), the Public Involvement and Participation Plan shall include a comprehensive planning process that includes public participation and where necessary,</p>	<p>As allowed in this Permit's section "Program Flexibility Elements", The Town of Bernalillo, through its involvement with the MRGSWQT, has integrated this section of the Public Involvement and Participation Program with</p>	<p>The Town will contribute and participate in the MRGSWQT, which participates in public events, and solicit public</p>

		<p>intergovernmental coordination. The permittee must include the following elements in the plan:</p> <p>(a) A detailed description of the general plan for informing the public of involvement and participation opportunities, including types of activities; target audiences; how interested parties may access the SWMP; and how the public was involved in development of the SWMP; and</p> <p>(b) The development and implementation of at least one (1) assessment of public behavioral change following a public education and/or participation event; and</p> <p>(c) A process to solicit involvement by environmental groups, environmental justice communities, civic organizations or other neighborhoods/organizations interested in water quality-related issues; and</p> <p>(d) An evaluation of opportunities to utilize volunteers for stormwater pollution prevention activities and awareness throughout the area.</p>	<p>existing education and outreach programs in the Middle Rio Grande area.</p>	<p>participation and feedback by way of surveys.</p> <p>In targeted areas, the Town will continue the "Poop Fairy" public outreach campaign, including posting signs and providing waste bags.</p>	
8.2	114	Comply with State, Tribal, and local notice requirements when implementing a Public Involvement	The Town of Bernalillo will provide hardcopies of all MS4 compliance reporting documents to the NMED, Pueblos of Sandia	Town of Bernalillo will provide hard copies of relative MS4 compliance	

		and Participation Program, as required in Part I.D.5.h.(iv). Reporting notification requirements also in Part 111.D.4.	and Isleta, as required here and in Part 111.D.4 of the MS4 Permit. The SWMP and Annual Reports are also available on the Town's website.	reporting documents to the NMED, Pueblos of Sandia and Isleta, as required here and in Part 111.D.4 of the MS4 Permit. The Town will continue to post the SWMP and Annual Reports on the Town's website.
8.3	115	Include elements as required in Part I.D.5.h.(v). The public participation process must reach out to all economic and ethnic groups. Opportunities for members of the public to participate in program development and implementation include serving as citizen representatives on a local stormwater management panel, attending public hearings, working as citizen volunteers to educate other individuals about the program, assisting in program coordination with other preexisting programs, or participating in volunteer monitoring efforts.	As allowed in this Permit section's "Program Flexibility Elements", The Town of Bernalillo, through its involvement with the MRGSWQT, has integrated this section of the Public Involvement and Participation Program with existing education and outreach programs in the Middle Rio Grande area. The Town of Bernalillo will continue to include water quality information for the public at events, including public meetings. The Town of Bernalillo may have Spanish translations of public meeting announcements and data sheets.	The Town will continue to include (along with the cooperative MRGSWQT) water quality information for the public at events, including public meetings. Where neighborhoods include Spanish-speaking residents, the Town may have Spanish translations of public meeting announcements and data sheets. The educational videos on the MRGSWQT website (www.keeptheriogrand.org) all have Spanish subtitles. By attending a variety of events, at widespread locations throughout the area, and by

				using the leading area newspaper (Albuquerque Journal) to advertise events, the MRGSWQT ensures that a wide-range of economic and ethnic groups are reached.
8.4	116	Update the SWMP document and annual report, as required in Part I.D.5 h (vi), Part I.D.5.h (vii) and Part I.D.5 h. (viii). The permittee must provide public accessibility of the SWMP and Annual Reports online and during normal business hours at the MS4 operator's main office for public inspection and copying consistent with any applicable federal, state, tribal or local open records requirements. Upon a showing of significant public interest, the MS4 operator is encouraged to hold a public meeting (or include in the agenda of in a regularly scheduled city council meeting, etc.) on the NOI, SWMP and Annual Reports.	The Town's Public Works Director will review the program requirements listed in Part I.D.5.h, for the above-mentioned program elements, during the Annual Report process. A strategy to implement any new program requirements or improve compliance with the program requirements will be developed as needed. The Town will provide public accessibility of the SWMP and Annual Reports on the Town's website.	As part of the Annual Report process each year, the Public Works Director will review the program requirements listed in Part I.D.5.h, for the above-mentioned SWMP elements, and assess the overall success of the program and document the program effectiveness in the Annual Report. The Town will provide public accessibility of the SWMP document and most recent Annual Report on the Town's website and during normal business hours at Town Hall.
8.5	117	Enhance the program to include requirements in Part I.D.5 h (ix).	The Town will continue to include in its (and in the cooperative MRGSWQT) public involvement and participation program: funds toward groups which include public participation, such as the Boy	The Town will annually document progress made with these program enhancement activities. The Town and the

			or Girl Scouts of America, River Xchange, and the Bosque Ecosystem Monitoring Program (BEMP).	MRGSWQT will continue to review, update and enhance public involvement and participation programs.	
	118	Part III - Monitoring, Assessment and Reporting Requirements			
	119	TABLE 10: Wet Weather Monitoring Program - Part III.A.1			
See NOI Sections Below	120	<p>Per Part III.A.1., The permittee must develop, in consultation with NMED and EPA (and affected Tribes, if monitoring locations would be located on Tribal lands), and implement a comprehensive monitoring and assessment program. The permittees shall conduct monitoring to gather information on the response of receiving waters to wet weather discharges from the MS4 during both wet season (July 1 through October 31) and dry season (November 1 through June 30).</p> <p>Wet Weather Monitoring shall be conducted at outfalls, internal sampling stations, and/or in-stream monitoring locations at each water of the US that runs in each entities' jurisdiction(s).</p>	<p>Wet weather screening is synonymous with compliance monitoring. In the MS4 Permit area, stormwater runoff discharges to the Rio Grande at outfall locations via major drainage channels, storm drains and pump stations.</p> <p>Details for this program are provided in the SWMP sections below.</p>	The program details and measurable goals are described below.	
9	121	Part 111.A.3.1.b. Option B: Cooperative Monitoring Program -			

	<p>122</p>	<p>Develop a cooperative wet weather monitoring program with other permittees in the Middle Rio Grande Watershed. The program will monitor waters coming into the watershed (upstream) and leaving the watershed (downstream). The program must include sampling for TSS, TDS, COD, BODS, DO, oil and grease, E. coli, pH, total kjeldahl nitrogen, nitrate plus nitrite, dissolved phosphorus, total ammonia plus organic nitrogen, total phosphorus, PCBs and Gross alpha. Monitoring of temperature shall be also conducted at outfalls and/or Rio Grande monitoring locations.</p> <p>Permittees must include additional parameters from monitoring conducted under permits NMS000101, NMR040000 or/and NMR040001 whose mean values are at or above a WQS. The monitoring program must sample the pollutants for a minimum of 7 storm events per location during the permit term with at least 3 events in the wet season and 2 events in the dry season.</p>	<p>The cooperative monitoring program will sample the pollutants for a minimum of 7 storm events per location during the permit term with at least 3 events in the wet season and 2 events in the dry season. The wet season is defined in the permit as July 1 through October 31 and the dry season as November 1 through June 30.</p>	<p>The monitoring program will follow the permit requirements for parameters tested (TSS, TDS, COD, BODs, DO, oil and grease, E. coli, pH, total kjeldahl, nitrogen, nitrate plus nitrite, dissolved phosphorus, total ammonia plus organic nitrogen, total phosphorus, PCBs, Gross alpha, and temperature). In addition, parameters from stormwater monitoring conducted under permits NMS000101, whose mean values are at or above a WQS, will also be tested. The monitoring program will be conducted according to the approved Sampling Plan for Compliance Monitoring.</p>
	<p>123</p>	<p>As required in Part III.A.1. and Table 10, the permittees shall submit wet weather monitoring preference Option A or Option B to EPA (i.e. individual monitoring program vs. cooperative monitoring program) with NOI submittals.</p>	<p>The Town of Bernalillo submitted its NOI in compliance with the permit requirements and schedule. The Town of Bernalillo will participate in Option B - cooperative monitoring program.</p>	<p>N/A - this permit activity is complete.</p>

<p>Not Included in NOI</p>	<p>124</p>	<p>Submit a detailed description of the monitoring scheme to EPA and NMED for approval. The monitoring scheme should include: a list of pollutants, a description of monitoring sites with an explanation of why those sites were selected, and a detailed map of all proposed monitoring sites. In addition, as required in Part III.A.1.h, the monitoring program must include a contingency plan for collecting additional monitoring data within the MS4 or at additional appropriate instream locations should monitoring results indicate that MS4 discharges may be contributing to instream exceedances of WQS. The purpose of this additional monitoring effort would be to identify sources of elevated pollutant loadings so they could be addressed by the SWMP.</p>	<p>The Town has developed, with its cooperative partners, a Sampling Plan for Compliance Monitoring which has received EPA approval.</p>	<p>The monitoring program will be conducted according to the approved Sampling Plan for Compliance Monitoring</p>
<p>Not Included in NOI</p>	<p>125</p>	<p>Submit certification that all wet weather monitoring sites are operational and begin sampling.</p>	<p>The Town and its cooperative partners, will ensure monitoring sites are ready to sample according to the monitoring plan. The Town of Bernalillo, with its cooperative partners, will submit certification to EPA that all wet weather monitoring sites are operational and will begin sampling according to the Permit requirements.</p>	<p>The Town, with its cooperative partners, will submit certification to EPA that all wet weather compliance monitoring sites are operational and will begin sampling, according to the Permit requirements.</p>
<p>Not Included in NOI</p>	<p>126</p>	<p>As required in Part III.A.1.e, update SWMP document and submit annual reports. The results of the Wet Weather Monitoring must be provided in each annual report.</p>	<p>The Town of Bernalillo's Public Works Director will review the program requirements listed in Part 11.A.I, for the above-mentioned program</p>	<p>As part of the Annual Report process each year, the Public Works Director will review</p>

			<p>elements, during the Annual Report process. A strategy to implement any new program requirements or improve compliance with the program requirements will be developed as needed. The Wet Weather Monitoring results obtained from July 1 to June 30 will be submitted in each Annual Report on Discharge Monitoring Report (DMR) forms as required in Part III.D.1</p> <p>The Town will submit "after action" reports on sample events with the Annual Report.</p>	<p>the program requirements listed in Part 111.A.1.e, for the above-mentioned SWMP elements, and assess the overall success of the program and document the program effectiveness in the Annual Report.</p> <p>The Wet Weather Monitoring results obtained from July 1 to June 30 will be submitted in each Annual Report on Discharge Monitoring Report (DMR) forms as required in Part III.D.1.</p>	
	127	<p>Dry Weather Discharge Screening of MS4 - Part III.A.2</p>			
Not Included in NOI	128	<p>Per Part III A.2, Each permittee shall identify, investigate, and address areas within its jurisdiction that may be contributing excessive levels of pollutants to the MS4 as a result of dry weather discharges (i.e. discharges from separate storm sewers that occur without the direct influence of runoff from storm events, e.g. illicit discharges, allowable non-stormwater, groundwater infiltration, etc.).</p> <p>Due to the arid and semi-arid conditions of the area, the dry weather discharges</p>	<p>The program details and measurable goals are described below and in Table 6 - Illicit Discharge and Improper Disposal.</p>	<p>The program details and measurable goals are described below and in Table 6 - Illicit Discharge and Improper Disposal.</p>	

		<p>screening program may be carried out during both wet season (July 1 through October 31) and dry season (November 1 through June 30). Results of the assessment shall be provided in each annual report.</p>		
<p>Not Included in NOI</p>	<p>129</p>	<p>This program may be coordinated with the illicit discharge detection and elimination program required in Part I.D.5.e. The dry weather screening program shall be described in the SWMP and comply with the schedules contained in Part I.D.5.e.(iii). The permittee shall:</p> <ul style="list-style-type: none"> (a) Include sufficient screening points to adequately assess pollutant levels from all areas of the MS4. (b) Screen for, at a minimum, BODs, sediment or a parameter addressing sediment (e.g. TSS or turbidity), E. coli, Oil and Grease, nutrients, any pollutant that has been identified as a cause of impairment of a waterbody receiving discharges from that portion of the MS4, including temperature (c) Specify the sampling and non-sampling techniques to be issued for initial screening and follow-up purposes. (d) Perform monitoring only when an antecedent dry period of at least 72 hours after a rain event greater than 0.1 inch in magnitude is satisfied. 	<p>There are no perennial streams in the Bernalillo area that contribute to the Rio Grande. As such, the dry weather screening program serves a dual purpose as an illicit discharge screening analysis.</p> <p>The Town will continue with the existing Dry Weather Screening program while working cooperatively to develop illicit discharge screening procedures and plan, as required in part I.D.5.e.(iii).</p> <p>The existing Dry Weather Screening program includes visual screening of arroyos. Should any discharge be present in a quantity sufficient for analysis, it will be screened for BODs, sediment (e.g. TSS or turbidity), E. coli, Oil and Grease, and nutrients. Any discharge collected will be a grab sample according to the Permit monitoring methodology.</p>	<p>Visual screening results will be included in the Town's Annual Report when provided.</p> <p>The Town will continue with the existing Dry Weather Screening program while working cooperatively to develop illicit discharge screening procedures and plan, as required in part I.D.5.e.(iii).</p> <p>The Town will continue membership and involvement in the cooperative MS4 Technical Advisory Group (MS4 TAG) which will facilitate cooperation and coordination with other MS4s in the Middle Rio Grande related to screening for illicit discharges.</p>

		(e) Monitoring methodology shall consist of collecting a minimum of 4 grab samples spaced at a minimum interval of 15 minutes each.			
4	130	Floatables Monitoring- Part III.A.3			
Not Included in NOI	131	<p>Per Part III.A.3, the permittees shall establish locations for monitoring/assessing floatable material in discharges to and/or from their MS4. A cooperative monitoring program may be established in partnership with other MS4s to monitor and assess floatable material in discharges to and/or from a joint jurisdictional area or watershed basis.</p> <p>Floatable material shall be monitored at least twice per year at priority locations and at a minimum of one (1) station for a Class B Permittee. The amount of collected material shall be estimated in cubic yards.</p> <p>Identify one (1) station to monitor and assess floatable material type.</p>			
	132	Industrial and High Risk Runoff Monitoring - Part III.A.4			
	133	The permittees shall monitor stormwater discharges from Type 1 and 2 industrial facilities which discharge to the MS4 provided such facilities are located in their jurisdiction. (Note: if no such facilities are in the permittee's jurisdiction, the permittee must certify that this program element does not apply).	Activity removed from The Town of Bernalillo's SWMP. This permit item is applicable to Class A permittees only	N/A	

ORDINANCE NO. 330

AN ORDINANCE PROVIDING FOR THE CONTROL OF EROSION, FLOODING AND ENSURING THE HIGHEST LEVEL OF WATER QUALITY BEFORE ENTERING THE RIO GRANDE OR THE GROUND THROUGH INFILTRATION; PROVIDING FOR PENALTIES; AND PROVIDING AN EFFECTIVE DATE OF ORDINANCE.

WHEREAS, in 2015, in order to comply with provisions of the Federal Clean Water Act (33 U.S.C. 1251 et. seq.), the Town of Bernalillo, in cooperation with other regional entities, was issued the Middle Rio Grande Watershed Based Municipal Separate Storm Sewer System Permit (NPDES Permit No. NMR04A000); and

WHEREAS, one of the requirements of the permit was to adopt a Stormwater Quality Ordinance for the Town of Bernalillo by 2016; and

WHEREAS, due to several factors, an ordinance was not adopted; and

WHEREAS, although an ordinance was not adopted, since 2016, many of the ordinance requirements have been met because of the Town’s ongoing cooperation with the other regional entities; and

WHEREAS, activities such as new construction monitoring and inspections, grading and drainage plan review, the requiring of storm water pollution prevention plans for construction activities, EPA compliance monitoring and coordination and annual report submittal have all continued; and

WHEREAS, the adoption of an ordinance is still required and is necessary prior to the next issuance of the Town’s NPDES permit.

NOW, THEREFORE, BE IT ORDAINED BY THE GOVERNING BODY OF THE TOWN OF BERNALILLO, NEW MEXICO, THE FOLLOWING “STORMWATER QUALITY ORDINANCE” IS HEREBY ADOPTED, AS FOLLOWS:

SECTION 1. TITLE

This Ordinance shall be known and cited as, “THE TOWN OF BERNALILLO STORMWATER QUALITY ORDINANCE”.

SECTION 2. AUTHORITY AND APPLICATION

The United States Environmental Protection Agency (EPA) issued a watershed-based, municipal separate storm sewer system (MS4) permit to all jurisdictions within the permitted watershed area of the middle-Rio Grande, in December of 2014. The EPA requires that each permittee implement the

legal authority granted by the State or Tribal Government to control discharges to and from those portions of the MS4 over which it has jurisdiction (NPDES Permit No. NMR04A000 or successive permits).

This ordinance shall apply to all newly developed lands within the Town and to lands within the Town's planning and platting jurisdiction.

SECTION 3. PURPOSE AND INTENT

This Ordinance is intended to promote the general health, safety and welfare, and to minimize public and private losses due to flooding, by provisions designed:

- A. As to decision-making, to: Establish policies, procedures, criteria and requirements to assist and guide decision-making by Town Officials, Town staff and all persons and entities within the jurisdiction of the Town.
- B. As to storm drainage, to:
 - i. Prevent the creation of public safety hazards and seek to eliminate existing problems; and
 - ii. Prevent, to the extent feasible, the discharge of storm runoff from public facilities onto private property; and
 - iii. Prevent the increased risk of damage to private property caused by storm runoff from other private property; and
 - iv. Provide a reasonable level of public health and safety protection and convenience at a reasonable cost; and
 - v. Provide for timely and effective construction and maintenance of storm drainage facilities.
- C. As to stormwater quality, to:
 - i. Integrate stormwater quality policies, criteria and requirements with our other related ordinances; and
 - ii. Reduce the quantity and improve the quality of stormwater runoff by requiring the retention of runoff onsite and within the limits of State water law; and
 - iii. Comply with ordinance implementation requirements of the Town's stormwater discharge permit (i.e., MS4 permit or NPDES permit); and
 - iii. Address construction and post construction stormwater quality management within the limits of State water law and, where applicable, within the limits of flood control agency(s); and
 - iv. Ensure, to the maximum extent practicable, that discharges to and from the Town's stormwater drainage system and facilities do not cause or contribute to exceedances of applicable surface water quality standards; and
 - v. Prohibit non-stormwater discharges and minimize the release of gross pollutants (e.g., floatables) and other pollutants, including pet waste, to the Town's stormwater drainage system and facilities, and provide for appropriate enforcement procedures and actions; and

- vi. Regulate discharges from industrial activities to the Town's stormwater drainage system and facilities; and
- vii. Work cooperatively with the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA) and the Eastern Sandoval County Arroyo Flood Control Authority (ESCAFCA) and other co-permittee's to best manage the discharge of stormwater runoff into co-permittee's facilities, maximize efficient use of stormwater facilities and minimize impact on downstream water quality and stormwater drainage facilities; and
- viii. Promote and encourage the use of green infrastructure/low impact development (GI/LID) for water conservation in landscaping and in the treatment of stormwater prior to discharge to the waters of the U.S.

SECTION 4. DEFINITIONS

For the purposes of this Ordinance, the following definitions shall apply unless otherwise specified in the context of this ordinance:

BEST MANAGEMENT PRACTICES (BMP): The schedules of activities, labor, equipment and material; prohibitions of practices; maintenance procedures; and other management practices (public or private) to prevent or reduce the pollution of waters of the U.S. BMP's include devices, practices or methods for removing, reducing, retarding, or preventing targeted stormwater runoff constituents, pollutants, and contaminants from reaching receiving waters. BMPs also include treatment requirements, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from material storage.

BURDEN OF PROOF: Reasonable evidence or presumptions regarding ownership of wastes and/or the responsible party involved in an illicit discharge detection and elimination (IDDE) event. In the presence of prima facie evidence and reasonable assumption, the burden of proof to establish a non-violation of this ordinance falls to the responsible party.

CHANNEL: Any arroyo, stream, swale, ditch, diversion or water course that conveys storm runoff, including manmade facilities.

CHANNEL STABILITY: A condition in which a channel neither degrades to the degree that structures, utilities or private property are endangered, nor aggrades to the degree that flow capacity is significantly diminished as a result of one or more storm runoff events or moves laterally to the degree that adjacent property is endangered.

CHANNEL TREATMENT MEASURE: A physical alteration of a channel for any purpose.

CIP: The Town's capital improvement program.

COMPREHENSIVE PLAN: The Town's general land use master plan and amendments thereto.

CONSTRUCTION GENERAL PERMIT (CGP): The EPA-issued general permit for stormwater discharge associated with construction activity.

COOPERATOR/COOPERATIVE AGREEMENT: An arrangement, organization or joint functioning of the co-permittees, that may be in combination with other governmental agencies, which works constructively with the Town to address mutual stormwater issues. The cooperation, agreements, and functionality may be informal, customary or formally documented through written agreements, contracts, joint planning documents or ordinances.

CO-PERMITTEE: Any entity discharging stormwater within the urbanized area under the auspices of the EPA-issued watershed based NPDES Permit No. NMR04A000 or successor permits.

DESIGN STORM: A storm which deposits a stated amount of precipitation within a stated period over a defined area and which is used in calculating storm runoff and in designing drainage control, flood control, water quality and erosion control measures.

DEVELOPED LAND: Any lot or parcel of land occupied by any structure intended for human occupation, including structures intended for commercial enterprise.

DEVELOPER: Any individual, estate, trust, receiver, cooperative association, club, corporation, company, firm, partnership, joint venture, syndicate or other entity engaging in the platting, subdivision, filling, grading, excavation or construction of structures.

DIRECTLY CONNECTED IMPERVIOUS AREA (DCIA): The portion of impervious area with a direct surface or infrastructure hydraulic connection to the Town's stormwater system or receiving waters via continuous impervious area or by other means of impervious conveyance features such as gutters, pipes, drains and other impervious features.

DISCHARGE: The release of stormwater, in whatever manner or composition, to or from the Town's stormwater system.

DISPOSE, DISPOSAL, DISCHARGE, RELEASE: Causing, allowing, abandoning, depositing, placing, injecting, releasing, spreading, dumping, spilling, leaking, or other similar actions by whatever term of use, of wastes in whatever manner or composition to stormwater or to the stormwater drainage system of the Town or its co-permittees.

DOWNSTREAM CAPACITY: The ability of downstream major facilities to accept and safely convey runoff generated upstream from the 100-year design storm.

DRAINAGE: Stormwater drainage.

DRAINAGE CONTROL: The treatment and/or management of surface runoff from all storms up to and including the 100-year design storm.

DRAINAGE REPORT: A comprehensive analysis of the drainage, flood control and erosion control constraints on and impacts resulting from proposed grading, platting, development or construction activity.

EPA: United States Environmental Protection Agency.

EROSION CONTROL: Treatment Measures for the prevention of damages due to soil movement and to deposition from the 10-year design storm runoff.

EROSION CONTROL PLAN: A plan for the mitigation of damages due to soil erosion and to deposition from the 10-year storm runoff.

FLOATABLES/FLOATABLE DEBRIS: Rubbish/litter/wastes and vegetative debris in stormwater runoff. Litter and other manmade pollutants such as plastic, paper products, polystyrene, cigarette butts, diapers, aluminum cans, bottles, construction trash, wood products, and vegetative debris including leaves, tumbleweeds, twigs, grass clippings, manure, yard waste and like items, that float or remain suspended in stormwater flows.

FLOOD CONTROL: The treatment measures necessary to protect life and property from the 100-year design storm runoff.

FLOOD HAZARD AREA: An area subject to inundation from the 100-year design storm runoff.

FLOODWAY: The channel of a river, arroyo or other water course and adjacent land areas that must be reserved in order to safely discharge the 100-year design storm runoff.

FULLY DEVELOPED WATERSHED: A hydrological condition in which all areas upstream and downstream of a point in question are assumed completely developed, including any undeveloped areas which are assumed to be developed in accordance with anticipated development densities as established by the comprehensive plan, appropriate area plans, sector plans or facilities plans and the hydraulic and hydrologic standards established by this ordinance.

GI/LID, GREEN INFRASTRUCTURE(GI), LOW IMPACT DEVELOPMENT(LID): Any array of products, technologies, and practices that preserve or use natural systems to enhance overall environmental quality and more specifically that provide treatment resulting in stormwater quality improvement.

GRADING AND DRAINAGE PLAN, CONCEPTUAL: A plan prepared in graphical format showing existing and proposed grading, drainage control, flood control, stormwater quality and erosion control information in sufficient detail to determine project feasibility.

GRADING AND DRAINAGE PLAN: A plan prepared in graphical format, with or on a detailed grading plan, that addresses on-site and off-site drainage control, flood control and erosion control issues for lots and parcels ¼ acre or more.

GRADING PLAN: A detailed plan describing the existing topography and proposed grading, including retaining wall locations and details, interfaces with adjacent properties, streets, alleys and channels, referenced to mean sea level based on the New Mexico State Plane, Central Meridian, with vertical datum utilizing North American Vertical Datum 1988 (NAVD '88) and the horizontal datum utilizing North American Datum 1983 (NAD '83), and showing sufficient contours, spot elevations and cross sections to allow a clear understanding by reviewers, contractors and inspectors.

GROSS POLLUTANTS: Floatables and debris items larger than five millimeters.

ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE): The detection and elimination of non-stormwater discharges and pollutants to the MS4. This term may be used synonymously with any number of terms of a nature similar to illicit discharge, illegal disposal, or illegal dumping.

ILLICIT DISCHARGE/ILLEGAL DISPOSAL/ILLEGAL DUMPING: Discharges not composed entirely of stormwater into the Town's or other co-permittees MS4, except discharges pursuant to an NPDES permit or those otherwise allowed by exception of the Town, or the placement or release of any manner of materials defined as waste, solid waste, or pollutant directly into or in a manner that can reasonably be expected to result in a direct release of materials into the Town's or a co-permittees MS4.

IMPERVIOUS SURFACE/IMPERVIOUS AREA: Conventional constructed surfaces such as pavements, sidewalks, driveways, roadways, parking lots, and rooftops that are intended to be impermeable or water resistant. Highly compacted soils may also be considered to be impervious as may be landscaped areas which are underlain by plastic sheeting which is not intended to allow the passage of water into the underlying soil layer.

INDUSTRIAL FACILITY/INDUSTRIAL ACTIVITY: A property that has discharges associated with industrial activity as defined by federal regulations in 40CFR 122.26(B)(214)I - XI and the activities which occur on the property.

MAINTENANCE: The cleaning, shaping, grading, repair and minor replacement of drainage, flood control and erosion control facilities, but not including the cost of power consumed in the normal operation of the pump stations.

MAJOR ARROYO: Any channel whose watershed exceeds 320 acres in a 100-year design storm whether the watershed is in its natural unaltered state or has been altered by development, runoff diversions or detention facilities.

MAJOR FACILITY: Any facility, including a street or alley, which would collect, divert or convey a peak discharge of more than 50 cubic feet per second (50cfs) or detains more than two acre-feet of runoff in the event of a 100-year design storm.

MANAGED ON-SITE: To control, direct, and treat the stormwater design volume on the property, or if from an area of common development, then at an alternate location designed for stormwater management, or as otherwise approved by the Town Engineer. The control and treatment is for water quality and/or flood volume purposes prior to discharge of the stormwater to the Town's or a co-permittees MS4. Nothing in this definition shall be construed to require an action which the applicant or the Town deems to be contrary to state water law, or to verbal or written state agency guidance regarding flood control or surface water capture, or which requires acquisition or amendment of a water right to legally implement.

MASTER PLANNED FACILITY: Any drainage control, flood control or erosion control facility recommended in the comprehensive plan, amendments thereto, or any voter-approved, general obligation bond financed drainage control, flood control or erosion control facility.

MAXIMUM EXTENT PRACTICABLE (MEP): A technology-based discharge standard for MS4 operators regulated under the NPDES stormwater program to reduce pollutants in stormwater discharges. The water quality standard may be quantitative or in the form of a narrative discharge limitation, requiring BMP's designed to satisfy the technology requirement of the Clean Water Act (CWA) and protect water quality. BMP's are determined by permittee.

MINOR FACILITY: Any facility that would collect, divert or convey a peak discharge of 50 cubic feet per second (50 CFS) or less or detains less than two-acre feet of runoff in the event of the 100-year design storm.

MULTIPLE USE FACILITY: A drainage control, flood control or erosion control facility in which other secondary uses are planned or allowed, including but not limited to recreation, open space, transportation and utility location.

MULTISECTOR GENERAL PERMIT (MSGP): The EPA-issued permit for stormwater discharge associated with industrial activity. The MSGP has the general requirements as well as industry sector-specific requirements as described in subparts A thru AD of the MSGP.

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4): The system of stormwater conveyances and drainages owned, operated, or under the control of the Town, or any such facilities or conveyances owned, operated or under the control of the co-permittees to which or from which the Town discharges or receives discharges of stormwater, and within the urbanized area. The MS4 includes all manner of natural and manmade, lined or unlined, ditches, arroyos, channels, canals, inlets, drains,

and piping that are used to convey stormwater. The term is used interchangeably to refer specifically to the Town's MS4, and generally to that of the Town and co-permittees.

NARRATIVE DISCHARGE LIMITATIONS: Criteria and limitations that describe a desired water quality control.

NPDES: The National Pollution Discharge Elimination System administered by the EPA under Title 33 of the United States Code of Federal Regulations. The EPA administers the NPDES program through issuance and enforcement of permits that authorize discharges to waters of the U.S.

NPDES PROJECT MANAGER: The Town staff person designated by the Town to oversee and ensure regulatory compliance with regard to the NPDES permit, who serves as the primary liaison to co-permittees regarding permit and stormwater quality issues, and who is responsible for application review as relates to stormwater quality issues.

NUISANCE WATERS: Those waters leaving a site and entering a public street which do not result from precipitation, such as landscape overwatering or car washing.

100-YEAR DESIGN STORM: The storm in which precipitation within a 24-hour period and resulting runoff has a one percent chance of being equaled or exceeded in any given year.

ORGANICS/ORGANIC DEBRIS: Organic material including leaves, branches, seeds, twigs, grass clippings and the like items, including yard wastes.

POINT SOURCE: Any discernable, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, property or lot, vessel or other floating craft, from which pollutants are or may be discharged. This term does not include agricultural stormwater discharges and return flows from irrigated agriculture.

POLLUTANT/POLLUTION: The alteration of the physical, chemical, or biological quality of any waters of the U.S. that renders the water harmful, detrimental, or injurious to humans, fauna, flora, property, or public health and safety, or otherwise degrades or impairs (per Section 303 of the Clean Water Act) the quality of the water and stormwater. Pollutants include but are not limited to those materials and substances included within the terms Waste and Solid Waste. Included in this definition is all manner of dredged spoil, solid waste, incinerator residues, filter backwash, sewage, garbage, sewage and septic sludges, drill fluids and cuttings, petroleum products and lubricants, floatable material and fats, oils and grease (FOG). It also includes munitions, chemical waste, biological materials, radioactive materials (except those regulated on the Atomic Energy Act of 1954, as amended), heat, wrecked or discarded vehicles and equipment, earthen materials, and industrial, municipal, and agricultural waste. Pollution occurs when pollutants are improperly, illicitly, or illegally

discharged, dumped, or otherwise disposed in the Town's or co-permittees stormwater system. The definitions of Pollutant and Pollution are intended to be inclusive and liberally construed.

PREDEVELOPMENT HYDROLOGY: In general, the rainfall volume at which runoff would be produced from an area in its natural condition, prior to development disturbances. For the purposes of this ordinance, this includes managing the stormwater runoff volume prior to discharge to mimic the release of runoff volumes which would have occurred had the site remained in its natural condition prior to disturbance and in relation to a designated design storm event.

PRIORITY PROJECTS: Development categories that have been established to address development types that historically have the potential to generate serious stormwater pollution problems during and after construction. Priority projects include:

1. Retail, warehouse and office developments in excess of one-half acre site size.
2. Automotive repair shops.
3. Restaurants.
4. Gas stations/fueling facilities.
5. Dumpster compactor and waste collection and storage pads on all commercial and industrial sites.
6. Residential developments with more than 10 residential units, excluding single-family housing subdivisions.

PUBLIC DRAINAGE SYSTEMS: The path that stormwater runoff or other flow will follow from the furthest upstream parcel of land to the Town limits.

RESPONSIBLE PARTY: The person(s) or entity that has ownership or control of wastes. All wastes generated within or brought into the Town are owned by and are the responsibility of the generator and/or person in control of the wastes, jointly and severably, until such time as the wastes is properly and legally disposed of or removed by a licensed private contractor, except where the transfer of ownership is prohibited by state or federal requirements. Barring determination or proof of a responsible party, other than the property owner on whose property wastes are found to have been disposed, ownership of the wastes defaults to the property owner and/or the person(s) or entity having control of the subject property, excepting ownership by the Town and co-permittees when such wastes are disposed of in the public right-of-way and no owner or generator can be identified.

SEDIMENTS: Soil, sand and mineral conveyed in or deposited from stormwater runoff.

SOLID WASTES: Ashes, debris, garbage, hazardous wastes, litter, refuse and rubbish.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP): A SWPPP is a site-specific, written document that:

1. Identifies potential sources of stormwater pollution at the construction site.

2. Describes practices to reduce pollutants in stormwater discharges from the construction site (Reduction of pollutants is often achieved by controlling the volume of stormwater runoff (e.g., taking steps to allow stormwater to infiltrate into the soil)).
3. Identifies procedures the operator will implement to comply with the terms and conditions of a construction general permit.

STORMWATER QUALITY DESIGN: Design including the selection of BMPs that manage the 100% of the developed flows generated by the 100-Year Design Storm. Stormwater quality designs shall be incorporated into the grading and drainage plan as part of the preconstruction review process.

STORMWATER QUALITY DESIGN STORM/EVENT: The storm in which precipitation within a 24-hour period and resulting runoff has a one percent chance of being equaled or exceeded for any given year. Methodologies shall be based on a site-specific predevelopment hydrology and associated storm event discharge volume specified therein.

STORMWATER QUALITY DESIGN VOLUME: The discharge volume associated with the stormwater quality design storm/event.

STORMWATER QUALITY TEAM: Representatives from Albuquerque and surrounding communities who are all stakeholders in a combined MS4 permit issued by the EPA in 2014. All communities included work together to maintain compliance with the EPA permit thru providing programs for school age children, outreach through volunteering at local events to share literature and education about pollution, and sampling of the Rio Grande in several locations along the permitted area.

STRUCTURAL TREATMENT CONTROL BMP: An engineered system designed, constructed, and maintained to remove pollutants from urban runoff. Structural treatment control BMPs can include gravity settling of particulate pollutants, filtration, screening, biological uptake, media absorption or other physical, biological or chemical process.

TARGETED CONTROLS: Practices, techniques, or infrastructure implemented to address particular pollutants of concern.

TECHNICAL ADVISORY GROUP (TAG): A team, mostly made up of the members of the Stormwater Quality Team, who meet to discuss the results of sampling, identify issues and develop solutions to improve stormwater quality.

TEMPORARY DRAINAGE FACILITY: A nonpermanent drainage control, flood control, or erosion control facility constructed as part of a phased project or to serve until the time that a permanent facility is in place, including but not limited to desilting ponds, berms, diversions, channels, detention ponds, bank protection and channel stabilization measures.

TEN-YEAR DESIGN STORM: The storm in which precipitation within a six-hour period and resulting runoff has a 10% chance of being equaled or exceeded in any given year.

TOWN: The Town of Bernalillo, New Mexico.

TOWN ENGINEER: A Professional Engineer (PE), duly licensed in the State of New Mexico, and designated by the Town to implement this ordinance.

URBANIZED AREA (UA): The delineation of densely developed territory that encompasses residential, commercial and other non-residential urban land uses. The U.S. Census Bureau delineates urban areas after each decennial census by applying specified criteria to decennial census and other data. Urbanized areas (UAs) are as defined in the NPDES permit.

WASTES: (see Pollutant)

WATER QUALITY VOLUME: The stormwater quality design volume.

WATERS OF THE UNITED STATES (U.S.): Any of the various waters as defined in 33CFR Part 328 and as designated by the U.S. Army Corps of Engineers.

SECTION 5. APPLICABLE LANDS

The requirements of this ordinance and of the related NPDES permit shall apply to all areas within the jurisdiction of the Town, including the currently incorporated limits within Sandoval County and any other properties annexed by the Town in the future, and the Town's planning and platting jurisdiction.

This chapter shall not apply to federal lands and reservations, or as regards stormwater, to the lands outside of the jurisdiction of the Town or other co-permittees with jurisdictional authority to pass and enforce ordinances, unless specifically mentioned and included. NPDES co-permittees may share jurisdiction in matters of flood control, drainage and stormwater quality. The jurisdiction of this chapter is not exclusive. In the event of conflict with ordinance or regulations of overlapping jurisdictions, the more stringent of the requirements as determined by the Town engineer shall apply.

SECTION 6. COMPLIANCE

- A. The design, construction and maintenance of all stormwater design, drainage control, flood control and erosion control facilities within the Town shall be performed in accordance with the procedures, criteria and standards formulated by the Town and in accordance with the policies established by this ordinance.
- B. All of the following construction activities within the jurisdiction of the Town shall conform to the requirements of the Town with respect to stormwater design, drainage control, flood control and

erosion control. All modifications to the public drainage system are subject to approval by the Town.

1. Construction, grading or paving on any lot within the jurisdiction of the Town shall not increase the damage potential to upstream, downstream or adjacent properties or public facilities. Damages shall be defined as those caused by flooding from the 100-year design storm and all smaller storms and from erosion and sedimentation resulting from the 10-year design storms and all smaller storms. Per NPDES Permit No. NMR04A000, "Stormwater discharges, allowable non-storm water discharges, and discharge-related activities do not affect a property that is listed or is eligible for the listing on the National Register of Historic Places as maintained by the Secretary of the Interior."
 2. Any grading within or adjacent to a watercourse defined as a major facility shall provide for erosion control and the safe passage of the 10-year design storm runoff during the construction phase.
 3. Grading Permit Required. A grading permit, issued by the Town and reviewed by the Town's Engineer, shall be required for various types of construction or development related grading activity, prior to the commencement such activity. This permit may be issued in conjunction with a building permit, provided that the building permit submittal was reviewed and approved by the Town. All grading activity shall conform to drainage control, flood control, and erosion control policies, standards, criteria and procedures established by the Town. Applications for development of areas known to have been sanitary landfills shall be accompanied by a report which discusses potential health and soil mechanics problems and their solutions. The reports shall be prepared by a New Mexico professional engineer, competent in soil mechanics. A Grading Permit is required for the following:
 - a. Any grading, including cut, fill or importation of material, when the area to be disturbed is equal to or greater than 10,890 square feet (1/4 acre) in size; or
 - b. Regardless of size, where the public drainage system will be modified; or
 - c. Where grading will result in a building pad having an elevation less than 1 foot above the adjoining street or road.
 4. Grading Permit Not Required. When the area to be disturbed is less than 10,890 square feet (1/4 acre) in size, a Grading Permit is not required. However, impervious surfaces shall not be allowed to drain directly onto adjacent property.
 5. All residential grading shall comply with the current version of the residential building code adopted by the Town.
 6. The Town shall not issue a grading permit unless the proposed grading or paving is in compliance with this ordinance and with accepted engineering practices.
- C. The Town may participate with private or public entities, operating within the jurisdiction of this ordinance, to accomplish the goals and implement the policies adopted in this ordinance. This includes, but shall not be limited to, the development and adoption of master plans, participation in the construction of projects, and exercising control through the planning, platting, zoning and permitting processes. Projects involving Town funding shall be prioritized, funded and scheduled within the guidelines of the Town's Infrastructure Capital Improvement Plan (ICIP).

SECTION 7. WARNING; DISCLAIMER OF LIABILITY

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This ordinance does not imply that land outside flood hazard areas or uses permitted within these areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of the Town or on any officer or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

SECTION 8. INTERPRETATION

In the interpretation and application of this ordinance, all provisions shall be:

- A. Considered as minimum requirements; and
- B. Liberally construed in favor of the Town; and
- C. Deemed neither to limit nor repeal any other powers granted under state statutes; and
- D. Not deemed to limit nor repeal any other provisions of this code, adopted by the governing body, unless expressly stated herein.

SECTION 9. CONTROL STANDARDS; DESIGN, CONSTRUCTION, AND MAINTENANCE

- A. The Town endorses the goal of flood damage reduction through the regulation of development within the flood hazard areas and the preservation of floodways.
- B. All developed land within the Town shall be provided with adequate drainage, flood control and erosion control facilities. The protection of life and property shall be the primary consideration in the planning, design, construction and maintenance of drainage control, flood control, and erosion control facilities. However, other concerns, not limited to the following, shall also be considered: channel capacity, watershed characteristics, channel stability, maintenance, transitions between treatment types, multiple use goals and appearance, the needs of the community related to transportation, utility services, recreation and open space (especially in the selection of channel treatment measures). These needs shall always be considered secondary to the primary consideration of the drainage control, flood control and/or erosion control facility.
- C. The design, construction and maintenance of dams, levees and diversions that fall within the jurisdiction of the State Engineer shall meet or exceed standards established by the State Engineer.
- D. The design, construction and maintenance of flood control facilities shall be coordinated with other affected flood control agencies.
- E. All major facilities shall be constructed within dedicated rights-of-way or recorded drainage easements granted to and accepted by the proper public authority.
- F. All detention ponds defined as minor facilities shall be constructed on private property unless otherwise authorized by the Town. Except when necessary for the treatment of nuisance water, all ponds shall be designed and constructed to be emptied in 96 hours or less. The use of individual lot ponding shall be governed by the standards established by the Town.
- G. Wherever flood control, drainage or erosion control improvements are necessary within dedicated public open space, such as a park, the improvements shall be designed and constructed in a

manner reasonably consistent with the natural surroundings. All construction and maintenance activities in dedicated open space shall be performed so as to minimize the disruption and destruction of vegetation and adjacent land forms. Where the disturbance or destruction is unavoidable, revegetation shall be performed at the earliest practical time by those responsible for the disturbance and/or destruction.

- H. Site development, subdivisions, or replats for industrial activities shall be designed and constructed such that non-stormwater discharges into storm sewers, arroyos or watercourses will not intentionally occur. Some non-stormwater discharges are allowable as authorized by the NPDES permit.
- I. For all new and re-development requiring a grading and drainage plan and approval, all stormwater discharge resulting from the stormwater design event must be managed on site for water quality prior to discharge from the property. Incorporation of stormwater BMPs into the landscape design and grading design plans, to minimize runoff and to increase on-site rainwater retention, will be required. No discharge from directly connected impervious areas, which results from the stormwater design storm or lesser storms, will be allowed without on-site treatment prior to release to the MS4, or provision of means to minimize such discharges to the maximum extent practicable.
- J. For all new development and projects that meet the definition of priority project and require drainage plans structural treatment control BMPs shall be considered, incorporated, and implemented into project designs, as required by Volume 2, Chapter 2, Section 10 of the City of Rio Rancho Development Manual, or as may be amended from time to time.
- K. For all new development and redevelopment of industrial and commercial properties a grading and drainage plan will be required and will be evaluated by the Town for treatment of stormwater from directly connected impervious areas, particularly driveways and parking lots. If, in the opinion of the Town, control and treatment of stormwater, prior to discharge from such areas to the MS4 is practicable, such measures shall be implemented, or other practical measures or alternatives to minimize such discharges may be utilized as approved by the Town.
- L. The Town is responsible for establishing criteria, procedures and standards for design and construction of flood control, drainage control and erosion control improvements within the Town. The Town shall provide a procedure and the criteria to obtain a variance from the requirements of this ordinance. When a variance is requested, the Town shall document the justification for her/his decision in an official Notice of Decision, and place it in the public records with the Town Clerk. An appeal of the Town's decision shall be submitted for consideration by Town officials.

SECTION 10. STORMWATER QUALITY PROTECTION

- A. Stormwater quality protection for construction phase.
 - 1. For all grading, construction, development, and redevelopment projects, both public and private, with land disturbances equal to or greater than one acre, including sites that disturb less than one acre but are part of a larger common plan of development, a Stormwater Pollution Prevention Plan (SWPPP), in accordance with EPA NPDES regulations for construction site stormwater runoff control, shall be submitted to the Town, prior to the issuance of a

building or approval of a grading and drainage plan. This requirement is in addition to any other provisions of this ordinance that may apply.

2. The SWPPP shall outline the structural and non-structural BMPs to be undertaken by the operator/owner of the project to protect stormwater quality during the construction phase of the project. These BMPs shall be maintained by the owner of the property. Inspection of these BMPs shall be made at a frequency consistent with the CGP by the owner, and a log of this inspection shall be kept on site for review by the Town. The Town may inspect these BMPs on a periodic basis. These BMPs shall be subject to review by the Town's Engineer.

B. Stormwater quality protection for post-construction phase.

1. State water laws, flood control authorities and application to post construction BMP selection.
 - a. The position of Office of the State Engineer, at the time of enactment of this ordinance, is that all detained stormwater must be released within 96 hours and local flood authority requirements prevail over the requirements of the NPDES permit.
 - b. The NPDES permit provides that where state water law limits the ability to fully retain stormwater design volume on site, measures to minimize increased discharge consistent with requirements under state water law must still be implemented. Local flood control requirements and NPDES permit requirements may be met through a combination of on-site and off-site controls.
 - c. The NPDES permit contains a list of possible infeasibility considerations for post-construction BMPs. The permit allows consideration of "multiple criteria that rule out an adequate combination of the practices," and further indicates that state water law may limit the ability to fully manage the stormwater quality design volume on site. Authorization to use off-site stormwater quality mitigation shall be solely determined by the Town.
 - d. Where applicable state water law limits the ability to address stormwater BMPs requiring infiltration, reuse, or other beneficial uses, the state may require permits under state environmental rights or water rights or acquisition of water rights. Such BMPs may be determined by the Town to be "not practicable" and alternative compliance may be considered.
2. Post construction BMP design requirements and implementation.
 - a. For all development and redevelopment projects with land disturbances equal to or greater than one acre, including sites which disturb less than one acre but are part of a larger common plan of development, that discharge into the Town's storm drainage system, post-construction water quality BMPs to manage the stormwater design volume are required. This requirement is in addition to any other requirements that may apply. These BMPs shall be subject to the approval of the Town and the Town's Engineer.
 - b. The selection of management BMPs must be included in a stormwater design (incorporated into the grading and drainage plan as part of the preconstruction review process and, as such, subject to inspection during construction, at final inspection, and as a condition of final construction approval) that manages 100% of post-construction stormwater design volume for all new development and redevelopment sites.

- c. Management of the stormwater design volumes on site, as defined in this ordinance, is expected to be implemented, in large part, for new development in a manner consistent with the NPDES permit's intent to reduce pollutants in stormwater (e.g. a water quality facility).
 - d. The selection of structural treatment control BMPs for priority projects must be included in a stormwater quality design to meet the criteria listed in the Town of Bernalillo design standards, or as may be amended from time to time.
 - e. Where practicable, BMPs will be selected and designed to first and primarily manage flow from the contributing impervious surfaces. Selected BMPs should include the following elements to improve on-site stormwater runoff quality:
 - i. Grade impervious surfaces, such as driveways, during construction to drain to vegetated areas.
 - ii. Minimize the area of impervious surfaces such as paved areas, roof and concrete driveways.
 - iii. Incorporate pervious or porous surfaces where allowable (e.g. gravel, permeable pavers or blocks, pervious or porous concrete) that minimize runoff.
 - iv. Direct runoff from paved surfaces and roof areas into planting beds or landscaped areas to maximize site water capture and reuse.
 - v. Incorporate rain gardens, cisterns and other rain harvesting or catchment systems consistent with current New Mexico State Engineer guidance.
 - vi. Incorporate beds, swales, basins and other such features to manage stormwater and dry weather runoff (e.g., irrigation system overspray) and increase percolation into the soil for landscape use.
 - f. The BMPs and structural treatment control BMPs must include an evaluation by the applicant of the GI/LID practices and a determination and inclusion of the viable BMPs that will be implemented. The evaluated BMPs can and should be integrated with water conservation techniques such as passive water harvesting, rooftop harvesting as allowed by state water law and/or soil amendment programs that improve the capacity of the soil texture to retain water. Examples of suitable BMPs that employ GI/LID practices can be found within the National Pollutant Discharge Elimination System Manual-Stormwater Management Guidelines for Construction and Industrial Activities.
 - g. As-built plans for stormwater quality designs must be submitted prior to final inspection. Grading and drainage plans or other required planning documents must specifically identify post construction BMPs that are required to be maintained and inspected.
 - i. BMPs must be inspected by the Town or designated qualified person and found to be in compliance with all approved plans and specifications prior to project closeout or other Town required approval for the site.
 - ii. Post-construction agreements and inspection and maintenance requirements are as outlined in subsections B3 and B4 of this section.
3. Alternative compliance for post-construction due to infeasibility.
- a. The applicant may submit to the Town a request for a determination of infeasibility for on-site management of all or a portion of the stormwater design volume based on the

- limitations provided in subsection B.1.d. of this section. If, at the discretion of the Town, the request is confirmed, an alternative compliance strategy acceptable to the Town and reviewed by the Town's Engineer shall be implemented to address predevelopment hydrology concerns prior to discharge to waters of the U.S. or to a co-permittee's MS4.
- b. The limitations of subsection B.1.d. of this section should not be construed to be exclusive, and other valid basis, other than costs, may also be considered. Such basis may include, but are not limited to:
 - i. Entitlements granted prior to the effective date of the permit.
 - ii. Previous authorization from the Town or co-permittees to utilize existing public off-site infrastructure granted prior to the effective date of the permit.
 - iii. Proposed use of a public, common, or private facility that is not strictly on site, but that is designed to be utilized by an area of common development (i.e., minor facilities incorporated into a master plan, planned community, subdivision, or town center).
 - iv. Proposed and contracted use of a joint private facility, with agreement terms subject to approval by the Town, though not an area of common development, and located prior to a discharge to the MS4 (e.g. reciprocal drainage agreements and easements).
 - v. Instances where post-development drainage does not and/or cannot practically connect to the Rio Grande or the MS4 or to a co-permittees MS4.
 - vi. Instances where appropriate public or private drainage facilities are available off site and will be used in a manner consistent with the goals and intent of this division to manage the stormwater design volume to mimic predevelopment hydrology and to address stormwater quality improvement, and located prior to discharge to waters of the U.S., and as determined and approved by the Town.
 - c. Availability of off-site private facilities will be demonstrated through appropriate engineering reports demonstrating the shared capacity of the facility and a joint voluntary agreement between parties that addresses ownership, maintenance, and inspection responsibilities that is equally, jointly and severably enforceable against and between all parties.
 - d. Availability of off-site public facilities of the Town or other co-permittees as documented by and subject to:
 - i. A determination by the Town, a letter from SSCAFCA or other applicable co-permittee, as it pertains to their respective facilities with conditions, as needed, indicating that:
 - aa. Existing infrastructure capacity is adequate to accept the stormwater quality design volume from the fully developed watershed or sub-watershed within which the development or redevelopment is located.
 - bb. The requirement for on-site retention from the releasing property may, accordingly be waived for all or a portion of the stormwater quality design volume, and clearly stating the proportional volume that must be addressed on site.
 - cc. Specifying any water quality treatment that is required prior to release.

- dd. Assurance to the Town that water quality compliance will be fully addressed by accepting parties' infrastructure prior to discharge to waters of the U.S.
- ii. Full or partial on-site treatment for stormwater quality acceptable to the Town and to owner and operator of the alternate compliance facility will be required prior to discharge to the receiving facility. The more stringent of treatment requirements specified by the Town shall be required.
- iii. No discharge of any portion of the stormwater quality design volume (other than under those approved through other NPDES permit means) will be discharged from the site to any MS4 without a minimum level of treatment (GI/LID or structural) to address floatables, gross pollutants, and/or site specific pollutants of concern as determined by the Town.
- iv. The maintenance of the on-site stormwater quality feature remains the responsibility of the property owner/operator.
- v. Annual inspection of the installed on-site water quality feature will be performed and documented by the owner/operator and records will be provided upon request by the Town and/or equivalent position of the co-permittee. Because of the reliance on off-site public facilities, an annual inspection applies rather than the three-year inspection schedule for private facilities specified for post construction inspection and maintenance, as described in subsection C.4.2. of this section.

C. Post construction inspection and maintenance.

1. Private stormwater facilities shall be maintained by the facility or property owner to standards established by the Town, published in the Development Process Manual, and/or in related Town ordinances.
2. Periodic inspection and certification of private facilities by a professional engineer licensed in the State of New Mexico or otherwise qualified stormwater person (as determined by the Town) are required of the facility/property owner and shall occur no less frequently than once every three years from the date of final construction inspection.
 - a. When reliance on off-site public facilities exists, an annual inspection applies rather than the three-year inspection schedule for private facilities specified for post-construction inspection and maintenance.
 - b. The responsibility and cost for the inspection is the responsibility of private facility owner and/or property owner. The owner and property owner for each structural BMP shall keep records of inspections, maintenance, and repairs for at least five years from the date of creation of the record, whether the inspection schedule is annual or every three years.
 - c. Documentation of the inspection, maintenance activities, and repairs shall be provided to the Town upon request or in the case of offsite mitigation, to the owner of the receiving facility. Copies of the inspection reports shall be kept on file at the subject property/facility or at the offices of the property owner and/or manager, and shall be made available within two working days of an inspection request (whether verbal or written). A facility or BMP that cannot be certified or for which records cannot be provided in a timely manner shall be certified by current inspection and/or deficiencies corrected within 90 days of notice from

the Town that such correction or inspection is needed unless a more immediate action is deemed necessary by the Town.

- d. All onsite post-construction BMPs or alternate compliance methods and techniques are subject to random inspections by the Town per the inspection provisions.
 - e. Inspections and inspection programs by the Town may be conducted or established on any reasonable basis, including but not limited to routine inspections, random inspections, inspections based upon complaints or other notice of possible violations, and joint inspections with other agencies inspected under environmental or safety laws. Inspections may include, but are not limited to, reviewing maintenance and repair records; sampling discharges or surface water, groundwater, and material or water in BMPs; and evaluating the condition of BMPs.
- D. The multi-sector general permit (MSGP) and industrial facility stormwater quality protection.
- 1. For any existing industrial activities subject to the MSGP, proof of compliance with the relevant EPA industrial sector permit provisions shall be provided to the Town prior to the issuance of any building, zoning, special use, development or redevelopment permit or approval of a grading and drainage plan. For new industrial development projects, such proof shall be provided no later than 90 days after receipt of the Certificate of Occupancy from CID or other necessary permit or closeout approval from the Town. In cases where MSGP proof of coverage is required, an active EPA Notice of Intent or No Exposure Certification serves as proof.
 - 2. The Town may require monitoring of non-stormwater discharges if the Town reasonably believes that such discharges violate the provisions of this ordinance or of the terms of the MSGP provisions.
 - 3. Upon request by the Town, an industrial facility subject to the MSGP shall submit the results of any sampling or monitoring undertaken pursuant to the MSGP or other water-related discharge permit.

SECTION 11. SURFACE USE OF STREETS

- A. The surface of a street may be used for drainage and flood control purposes, to the extent the use does not interfere with the safe transportation of people and vehicles.
- B. The 100-year design storm runoff shall not exceed a depth of 0.87 feet at any point within the street right-of-way, or 0.2 feet above top of curb in any street, or enter private property, built in compliance with appropriate regulations, from any street, except in recorded drainage or flood control easements or right-of-way (or historic channels and watercourses where easements or right-of-way's cannot be obtained).
- C. (1) The 10-year design storm runoff shall not exceed a depth of 0.5 feet in any arterial street and shall flow such that one 12-foot drive lane in each direction is free of flowing or standing water. The 10-year design storm runoff shall not exceed a depth of 0.5 feet in any collector street.
(2) Arterial and collector streets that are in the State Highway system may require more stringent drainage criteria.
- D. The product of depth time velocity shall not exceed 6.5 at any location in any street in the event of a 10-year design storm (with velocity calculated as the average velocity measured in feet per second and depth measured at the gutter flow line in feet).

- E. The discharge of nuisance waters to public streets shall be discouraged. Arterial and collector streets shall be protected from damages to the pavement surface and from the safety hazards created by surface flow of nuisance waters across them.
- F. All newly developed land within the Town shall be served by at least one paved access that shall be an all-weather facility during a 100-year design storm, with all channel-crossing structures beneath the roadway being able to pass a 100-year design storm runoff event.
- G. Excepting the specified depth, flow line, and velocity restrictions of this section, nothing in this section should be construed to prohibit the use of GI/LID in medians and within off-pavement rights-of-way for stormwater quality treatment purposes upon approval by the Town.

SECTION 12. CROSSINGS

- A. Channel-crossing structures shall be provided on all arterial and collector streets to safely pass the 100-year design storm runoff from major arroyos, assuming a fully developed watershed.
- B. Where feasible, temporary crossings shall be designed so they may be incorporated into the future permanent crossing structure so that they meet street design standards established by the Town.
- C. Crossing of arroyos by streets that access new private development shall be constructed at developer expense and shall meet street design standards established by the Town.
- D. Temporary crossings required for access, including those on arterials and collectors, shall be constructed at developer's expense.

SECTION 13. RIGHTS OF WAY AND EASEMENTS

- A. Multiple use is encouraged for drainage rights-of way and drainage easements, e.g. for utility corridors and for recreation trails. Where multiple use is planned by the Town, another public agency, or a public utility, the Town may require that the dedication statements include language which permits the uses in addition to the primary drainage function. However, land required to be dedicated for drainage rights-of way and easements shall be limited to those land areas necessary for drainage control, flood control, erosion control and necessary appurtenances.

SECTION 14. FINANCIAL AND MAINTENANCE RESPONSIBILITY

- A. Financial/Funding.
 - 1. The Town may participate in the construction of permanent flood control facilities to the extent that public benefits are derived from the construction and are consistent with the capital improvement program (CIP) priorities. Reimbursement for private funding of such projects may also be available under these conditions.
 - 2. The Town may participate in the cost of channel-crossing structures for streets which are required for sole access to a development. The developer's share shall not exceed the cost required to meet the minimum street width standards established by the Town.
 - 3. The Town shall not participate in the funding of flood control facilities in which the sole intent is the reclamation of undeveloped land located within a flood hazard area for private development purposes.

4. The dedication of land for public purposes does not relieve a developer of responsibilities for the construction of drainage control, flood control and erosion control facilities that would otherwise be necessary. The dedication of rights-of-way or easements for drainage control, flood control; or erosion control facilities does not relieve a developer of responsibilities that would otherwise exist for the construction of other public infrastructure.

B. Maintenance.

1. Except as otherwise noted herein, all permanent major facilities shall be maintained by the Town 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 the Town standards. The Town may allow private maintenance within the public right-of-way or easement; provided, that adequate guarantees and indemnifications are supplied.
2. Minor facilities shall be maintained by their owners to Town standards.
3. The maintenance of temporary facilities, constructed at private expense is the responsibility of the developer until permanent facilities are in place.

SECTION 15. ILLICT DISCHARGE AND ELIMINATION (IDDE) STANDARDS

A. Design, Construction and Maintenance.

1. Authorized non-stormwater discharges, as described in the NPDES permit, are subject to determination by the Town that such discharges do not constitute a significant contributor of pollutants to the MS4.
2. The IDDE provisions listed herein do not apply to discharges resulting from a spill where discharge to the MS4 is necessary for emergency response personnel to prevent, control, or minimize loss of life, personal injury, property damage or facilitate a flood control response. These functions are, for the purposes of this division, considered a fire fighting/emergency response activity. However, the responsible party shall remain liable for all costs, damages, liabilities, and penalties that may have occurred due to the initial spill and all costs related to emergency spill response and remediation.
3. Persons discharging to the Town's MS4 as a result of an accidental spill or accidental release who voluntarily and immediately self-identify and notify the state spill response hotline, if applicable, and who actively cooperate and demonstrate financial responsibility and willingness to address and appropriately remediate the spill and address resulting damages, and who properly and promptly dispose of resulting remediation wastes, will not be considered to have illicitly discharged to the MS4 for enforcement penalty purposes under this ordinance. This provision does not alleviate the responsible party for cost, damages, liabilities, and penalties that may be incurred under other local, state, or federal law or regulations, but does protect against enforcement penalties (but not actions) under the IDDE requirements of this ordinance.
4. The provisions of this section do not apply to irrigation water to or from agricultural irrigation operations but do apply to certain livestock operations as described below.
5. The provisions of this section also apply to industrial facilities addressed under Section 11(C).

B. Specific IDDE Protections.

1. No person or entity shall:
 - a. Attempt to dispose, release, or discharge wastes, other than pollutant-free stormwater into or through the MS4, except as addressed by an authorized NPDES permit as described in Section 11(C).
 - b. Attempt to dispose, release or discharge household hazardous wastes (including, but not limited to: paint, solvents, automotive fluids, fertilizers, pesticides, herbicides, and other hazardous materials) to the MS4; nor dispose, release, or discharge fats, oils, and grease to the MS4.
 - c. Knowingly allow or neglect routine maintenance, to a degree that allows the discharge or release of sediment loads and gross pollutants into the MS4 from industrial, commercial or private property under control or ownership.
 - d. Leave, accumulate, discharge, or allow animal wastes of a companion animal on publicly owned property whatsoever, or on private property under the control or ownership in such a manner that it drains or can reasonably be anticipated to drain to the MS4.
 - e. Accumulate, pile, compost, or dispose of animal wastes of livestock or exhibition animals on publicly owned property without approval of the Town or other MS4 co-permittee, or on private property under their control or ownership in such a manner that it drains or can be reasonably anticipated to drain to a MS4. Animal wastes resulting from exhibition, stabling, corralling, dairying, feed lot, and confined feeding operations and all operations of a similar manner are included in this prohibition. Nothing in this ordinance should be construed to prohibit handling of livestock or exhibition animal wastes allowed under other ordinances and permits or permissions on either public or private property, so long as the methods and protections employed minimizes or eliminates disposal, discharge or drainage to the MS4 to the maximum extent practicable. Animal wastes associated with normative pasturing and range feeding of agricultural livestock or exhibition animals does not constitute accumulation, piling, composting or disposing of livestock wastes.
 - f. Allow fluids, wastes, or materials from any motor vehicle, equipment, contractor yards, outdoor storage areas, or any related storage or maintenance activities from such areas under their control or ownership to drip, flow, accumulate, or spread onto public property, or onto or through private properties of others, such that it drains or spreads or can reasonably be anticipated to drain or spread to the MS4.
 - g. Illegally dispose of wastes, solid wastes, or yard wastes originating from private property under their control or ownership or allow it to drain or spread to any public property whatsoever, or the property of others, in such a manner that it drains or can reasonably be anticipated to drain to the MS4.
 - h. Allow the commercial application of pesticides, herbicides, and fertilizers by any person or enterprise not specifically licensed by the state and permitted, by virtue of business license from the Town, to perform such applications. Applications by private individuals or business owners or their employees is allowed so long as the application is for routine maintenance and sanitation, is performed in accordance with manufacturer directions, purpose of use, and application rates, and the use and application is in accordance with laws and ordinances pertaining to its use.

- i. Allow sanitary sewer, septic overflows, overflows from grease traps or flows from grease and fat accumulation areas, or overflows from trash compactors to flow from private property under their control or ownership and enter publicly owned property or the MS4, or property of others, in such a manner that it drains or can reasonably be anticipated to drain to the MS4.
- j. Allow flows from sanitary sewers, on-site wastewater treatment facilities, or other treatment devices to enter the MS4 through a cross connection of sanitary sewer pipe or from an open discharge from property under their control or ownership.
- k. Attempt to dispose, release, or discharge septage wastes at any location within the Town that is not specifically designated by the state to receive such wastes, nor dispose of septage wastes to any public facility or infrastructure without the express authorization of the owner of that public facility.
- l. Allow, cause, or take any action or fail to take an appropriate action that is committed or omitted within their span of control and that, in the opinion of the Town, results in the release or disposal of non-stormwater discharge to the Town's MS4 or that of its co-permittees.

SECTION 16. TOWN IDDE RESPONSIBILITIES AND RESPONSE

- A. Upon notification of a possible IDDE event, the NPDES Project Manager will determine the severity of the event and determine the likely jurisdiction. Severity of the event will be determined based upon a combination of factors including, but not limited to, volume, nature of material, location, and risk to human life, health, property, and the environment. Upon determination of a significant/severe illicit discharge, the NPDES Project Manager shall initiate, either on behalf of the Town, or jointly with appropriate co-permittees, an investigation of the event within 48 hours of notification and shall address other lesser IDDE events as soon as practicable in a similar and timely manner.
- B. The Town may make such inspections as are reasonably necessary for investigation and elimination of such discharges as expeditiously as possible.
 - 1. If the IDDE event is found to be within the jurisdiction of a co-permittee or other jurisdictional entity, the Town will promptly notify the appropriate entity upon such determination and document the notification and transfer of responsibility and control of the event to the appropriate entity.
 - 2. The Town may offer assistance to the lead entity as best meets the Town's interest in remediating the incident in a timely manner.
 - 3. If the IDDE event falls within the Town's jurisdiction, the Town shall initiate an IDDE record of complaint, initiate a site inspection request, and shall ensure notification of the appropriate state authorities as required based on the nature and magnitude of the event and shall document such notification.
 - 4. Other cooperative agreements for addressing cross jurisdictional IDDE events and remediation may be developed and used in lieu of the provisions of this ordinance.
- C. Once the Town has determined that an IDDE event has occurred within the Town jurisdiction and an inspection has been performed, the burden of proof for determining the responsible party is

presumed to have been satisfied if a person's, company's, or entity's name or other identification other than the original manufacturer is affixed or found:

1. On three or more items of general rubbish or wastes of a solid nature except as noted below;
or
 2. On one or more items of construction debris or other wastes of a commercial nature; or
 3. On one or more drums, buckets, or containers containing wastes of a gaseous, sludge, semi-solid or liquid nature; or
 4. There is documented and traceable evidence of disposal by parties other than the property owner, such as eyewitness reports, photos, or license plate information, suspicious activity reported to law enforcement. Town environmental enforcement personnel or inspectors at or near the time of the event, or similar documentary evidence.
- D. Presence of identifying information, such as labels and other markings, found on illegally disposed containers or other rubbish and waste is considered prima facie evidence of waste ownership. Barring such evidence, the property owner and/or person in control of the property is the presumed owner and disposer of such wastes.
- E. The burden of proof to establish a non-violation of this ordinance, and transfer of costs for remedy of the situation, damages, and liabilities, shall shift to the responsible party, but shall not provide for a delay in addressing any imminent threat to the public health, safety, or environment as determined by the Town.
- F. The Town shall have the authority to require immediate cessation of illicit discharges.
- G. If, in the judgement of the Town, or fire or law enforcement official, the general safety, public health, the environment, or the waters of the U.S. are at imminent risk, or the public interest otherwise requires that the site be cleaned rapidly, the Town may require the responsible party (as determined above) to provide sufficient manpower and resources supplied by the owner to clean the site within 24 hours. If the responsible party or owner cannot be readily determined or contacted, or if the responsible party or property owner fails to remedy the IDDE event within the specified time, then the Town will require corrective action to be started at the site immediately, at the expense of the owner of the property, and recoup related costs by means described in section 20 of this ordinance and/or by any other legal means available.

Section 17. PROCEDURES, AMENDMENTS AND CRITERIA

- A. Rules concerning procedures, criteria and standards shall be adopted, amended or abolished in compliance with the guidelines of this chapter and as provided by the procedures of this section. All rules and decisions shall be filed in the public records with the Town Clerk.
- B. Proposed changes relating to procedures, criteria and standards pursuant to this ordinance may be initiated by the Town Engineer or other Town Official. If any person other than a Town Official submits a proposal, a processing fee may be charged, pursuant to the adopted fee schedule.
- C. Prior to adoption, amendment or repeal of any rule pursuant to this ordinance, the Town shall follow the same process as for ordinance adoptions in compliance with the Open Meetings Act.
- D. In the event of an emergency, the mayor may direct that rules concerning procedures, criteria or standards take effect immediately upon their posting and distribution. The Mayor's finding of an emergency and brief statement of the reasons for this finding shall be incorporated in the

emergency rule change. Upon adoption of an emergency rule change which change shall remain in effect for longer than 60 days, notice to the public shall be given within seven days and opportunity for public comment shall be given in the manner required in this section for proposed rules.

- E. Appeal of the Town Engineer's decisions is as provided in Section 21. Regular rules, adopted under subsection (C) of this section, do not take effect until an appeal is decided if they are appealed prior to taking effect. Emergency rules, adopted under subsection (D) of this section, and regular rules, which have taken effect prior to appeal, are in effect until the time as they may be reversed by appeal action.

Section 18. ENFORCEMENT

A. Enforcement procedures


1. Whenever necessary to make an inspection to enforce any of the provisions of this ordinance, the Town Engineer or her/his authorized representative may enter the premises at all reasonable times to inspect the same or to perform any duty imposed upon her/him by this ordinance; provided, that if the premises be occupied, s/he shall first present proper credentials and demand entry; and, if the premises be unoccupied, s/he shall first make a reasonable effort to locate the owner or other persons having charge or control of the premises and demand entry. If entry is refused or if the owner or other responsible person is not found, the Town Engineer or her/his authorized representative shall proceed to obtain a search warrant through the municipal court or district court, upon oath or affirmation.
2. The complaint shall:
 - a. Set forth the particular premises, or portion thereof, sought to be inspected; and
 - b. State that the owner or occupant of the premises, or portion thereof, has refused entry; and
 - c. State that inspection of the premises, or portion thereof, is necessary to determine whether it complies with the requirements of this ordinance; and
 - d. Set forth the particular provisions of this ordinance sought to be enforced; and
 - e. Set forth any other reason necessitating the inspection, including knowledge or belief that a particular condition exists in the premises, or portion thereof, which constitutes a violation of this ordinance; and
 - f. State that the complainant is authorized by the Town to make the inspection.
3. Each inspector shall be furnished with an identification card indicating her/his authority and must present same to the municipal court or district court for the purposes of this subsection and to other persons, when requested to do so during the performance of her/his duties. No owner or occupant or any other person having charge, care, or control of any premises shall fail or neglect, after proper demand is made as herein provided, to promptly permit entry therein by the authorized inspector for the purpose of inspection and examination pursuant to this ordinance.

- B. In the event that the Town Engineer or NPDES Project Manager determines a recognized or observable spill, release, illicit discharge, illegal dumping, or illegal disposal constitutes an imminent threat to the waters of the U.S. or its tributaries, to the environment generally or to

therein by the authorized inspector for the purpose of inspection and examination pursuant to this ordinance.

- B. In the event that the Town Engineer or NPDES Project Manager determines a recognized or observable spill, release, illicit discharge, illegal dumping, or illegal disposal constitutes an imminent threat to the waters of the U.S. or its tributaries, to the environment generally or to public health or public safety, immediate entry to the property, immediate entry to the property, under the direction of fire or law enforcement officials or state environmental officials, is granted for the purpose of stabilizing, containing, neutralizing or otherwise removing the imminent threat. The costs of such remedies may be imposed against the responsible party and/or property owner.
- C. Where, after investigation, an order has been issued by the Town Engineer to the owner of the property on which a violation has occurred and the order is not complied with, within such reasonable time as may be prescribed by the Town Engineer, or if the responsible party or violator cannot be found or determined, the Town Engineer may cause such remedies as are necessary to be made. The reasonable cost of such remedies shall constitute a lien against the property on which the violation occurred and was remedied. The lien shall be imposed and foreclosed in the manner provided in NMSA 3-36-1 through 3-36-6, as amended.

PASSED, APPROVED AND ADOPTED THIS 11th DAY OF JULY, 2022.



Jack Torres, Mayor

ATTEST:



Ida Fierro, Town Clerk

Outcome Report

for Fiscal Year 2022–2023

(July 1, 2022 to June 30, 2023)



Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) • City of Albuquerque • Bernalillo County • Town of Bernalillo • Village of Corrales • Ciudad Soil and Water Conservation District • Eastern Sandoval County Arroyo Flood Control Authority (ESCAFCA) • Village of Los Ranchos de Albuquerque • Department of Transportation (NMDOT) • City of Rio Rancho • Sandoval County • Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA)

PRESENTED BY

SUNNY505

Introduction

The outcomes report is designed to illustrate the collective successes of the Middle Rio Grande Stormwater Quality team. In fiscal year 2022–2023, the Storm Team reached over 100,000 individuals in the Albuquerque Metro area through special events, educational efforts, as well as digital promotions via various social media and the website.

The Storm Team is a collaborative organization made of of the following: The Albuquerque Metropolitan Arroyo Flood Control Authority, the City of Albuquerque, Bernalillo County, the City of Rio Rancho, Ciudad Soil and Water Conservation District, the New Mexico Department of Transportation, the Southern Sandoval County Arroyo Flood Control Authority, the Town of Bernalillo, the Village of Corrales and the Village of Los Ranchos.



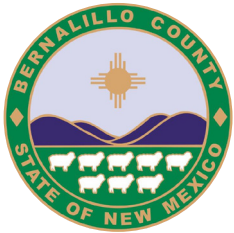
Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) • City of Albuquerque • Bernalillo County • Town of Bernalillo • Village of Corrales • Ciudad Soil and Water Conservation District • Eastern Sandoval County Arroyo Flood Control Authority (ESCAFCA) • Village of Los Ranchos de Albuquerque • Department of Transportation (NMDOT) • City of Rio Rancho • Sandoval County • Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA)

Table of Contents

- [Bernalillo County 1](#)
- [City of Albuquerque 5](#)
- [Middle Rio Grande Stormwater Quality Team. 17](#)
- [Village of Corrales. 19](#)
- [Village of Los Ranchos 19](#)
- [Ciudad Soil and Water Conservation District 20](#)
- [Southern Sandoval County Arroyo Flood Control Authority 109](#)
- [Albuquerque Bernalillo County Water Utility Authority. 130](#)
- [Town of Bernalillo 131](#)
- [UNM | BEMP | Bosque School 132](#)
- [AMAFCA 141](#)
- [FY22 Watershed Stewards Final Report 142](#)

Will be updated after content is complete.





Bernalillo County

Public Outreach and Education Tracking

FY2023: July 1, 2022 – June 30, 2023

Date	Location	Event Topic	Description of Education/Outreach Event Program/Materials	NRS Programs	Partner Organizations	Participants	Source for Participant Count
Q1							
7/9, 7/30, 8/27, 9/10, 9/24/2022	Tijeras Creek Remediation Project	Volunteer work days, 3 hrs each	Working on watershed restoration by addressing erosion, removing invasive plants, addressing tree health (pruning dead/broken branches), had watering	Water Conservation, Stormwater	Ciudad SWCD, TCWC organization members	27	attendance
7/22/2022	ABCWUA water bill insert	Residential rainwater harvesting PSA	Water bill insert on residential rainwater harvesting that included benefits, steps you can take, and link to more resources.	Water Conservation, Stormwater	Arid LID Coalition	210,000	Total printed copies of insert
8/13/2022	Gutierrez Hubbell House (6029 Isleta Blvd SE, Albuquerque, NM 87105)	Drip Irrigation Repair for Homeowners Workshop	Hands-on workshop for homeowners on drip irrigation repair.	Water Conservation	ABCWUA	17	Headcount at event. 24 registered per Cervis.
9/14/2022	GovDelivery Email	News Bulletin	News Bulletin advertising Water Fair and Well Owner Workshop	Water Conservation, Hydrogeology, Review and Permitting		1,345	Unique recipients for Water Conservation, Hydrogeology, and Review and Permitting email lists
9/25/2022	Los Vecinos Community Center (478 NM-333, Tijeras, NM 87059)	East Mountain Celebration	Natural Resources Services table in Bernalillo County tent. Provided information to educate County residents on stormwater quality, water conservation methods and incentive programs, and groundwater monitoring program.	Water Conservation, Stormwater, Hydrogeology, Review and Permitting		2,300	BernCo Office of Community Engagement and Outreach
9/25/2022	Los Vecinos Community Center (478 NM-333, Tijeras, NM 87059)	Water Fair	Provided staff support for NMDOH/NMED Water Fair at East Mountain Celebration. Included mail out of flyer advertising water fair to 600 Carnuel residents.	Hydrogeology, Review and Permitting	NMDOH, NMED	51	NMDOH count of water samples analyzed



Q2							
10/8/2022	Polk Middle School (2220 Raymac Rd SW, Albuquerque NM 87105)	Household Hazardous Waste (HHW) Collection Event	HHW weekend collection event	Stormwater, Review & Permitting		16	Count
10/15/2022	James McGrane Public Safety Complex (48 Public School Rd, Tijeras, NM 87059)	Well Owner Workshop	3 hour presentation on water quality testing, drinking water contaminants, water rights, well permitting and tagging, East Mountain groundwater resources, financial incentives for water conservation.	Water Conservation, Stormwater, Hydrogeology, Review and Permitting	NMDOH, NMED, OSE	29	NMDOH
11/16/2022	Albuquerque Open Space Visitors Center (6500 Coors Blvd NW, Albuquerque, NM 87120)	Green Stormwater Infrastructure Maintenance Training through ABCWUA WaterSmart Academy	Cofacilitated training with MRWM Landscape Architects on arid-adapted green stormwater infrastructure maintenance for an audience of landscape professionals.	Stormwater, Water Conservation	ABCWUA, MRWM Landscape Architects	8	attendance
11/18/2022	Expo New Mexico	STEAM Discovery Fair	6 hour event for middle school students highlighting Natural Resources as a STEAM career. Worked with the Envirosapes model to discuss hydrology, pollution prevention and water conservation.	Water Conservation, Stormwater, Hydrogeology, Review and Permitting	Big Brothers Big Sisters of Central New Mexico	1,506	attendance
12/10/2022	Tijeras Creek Remediation Project	Volunteer work days, 3 hrs each	Working on watershed restoration by addressing erosion, removing invasive plants, addressing tree health (pruning dead/broken branches), had watering	Water Conservation, Stormwater	Ciudad SWCD, TCWC organization members	5	attendance
12/14/2022	Bernco PROS	GSI/LID Standards Lunch & Learn	Lunch and a presentation about the new Bernalillo County Green Stormwater Infrastructure / Low Impact Development (GSI/ LID) Standards for staff that work on Bernalillo County public and private development projects.	Stormwater / Review & Permitting		9	attendance
Q3							
2/1/2023	Albuquerque Open Space Visitors Center (6500 Coors Blvd NW, Albuquerque, NM 87120)	Green Stormwater Infrastructure Maintenance Training through ABCWUA WaterSmart Academy	Cofacilitated training with MRWM Landscape Architects on arid-adapted green stormwater infrastructure maintenance for an audience of landscape professionals.	Stormwater, Water Conservation	ABCWUA, MRWM Landscape Architects	16	attendance



3/1 – 3/3/2023	Hybrid conference (virtual and in-person at Indian Pueblo Cultural Center at 2401 12th St NW, Albuquerque, NM 87104)	Land and Water Summit	Professional conference that provides 2-days of presentations and 1-day tour of local Green Stormwater Infrastructure projects. 2023 conference theme: Communities, Collaboration, & Climate Change, highlighting local, collaborative responses to climate change. BernCo is a conference sponsor and BernCo staff sit on conference Planning Committee.	Water Conservation, Stormwater Quality, Hydrogeology	Ciudad Soil and Water Conservation District, Arid LID Coalition	378	Whova (virtual conference platform) report
3/11/2023	Tijeras Creek Remediation Project	Volunteer work days, 3 hrs each	Working on watershed restoration by addressing erosion, removing invasive plants, addressing tree health (pruning dead/broken branches), had watering	Water Conservation, Stormwater	Ciudad SWCD, TCWC organization members	5	attendance
3/18/2023	Valle de Oro Backyard Refuge (7851 2nd St SW, Albuquerque, NM 87105)	“Incorporating Passive Rainwater Harvesting into Your Backyard Refuge” presentation at Backyard Refuge Day	Presentation addressed steps to designing, constructing, and maintaining residential passive rainwater harvesting features, drawing context from residential passive rainwater harvesting video series at bernco.gov/rainwater .	Water Conservation, Stormwater Quality	Friends of Valle de Oro Refuge	54	Friends of Valle de Oro Refuge count
3/20/2023	Gutierrez Hubbell House (6029 Isleta Blvd SE, Albuquerque, NM 87105)	Hands-on Training on Drip Irrigation Installation for Grow the Growers Farm Training Program	Hands-on instruction on installation of drip irrigation systems for 2023 Grow the Growers trainees. Workshop included installation of irrigation main lines in Gutierrez Hubbell House Medicinal Garden.	Water Conservation		5	Workshop headcount
3/14/2023, 3/17/2023, 4/7/2023	GovDelivery Email	News Bulletin	News Bulletins advertising Backyard Refuge Day, Irrigation Efficiency Exhibit and workshops	Water Conservation, Stormwater Quality, Hydrogeology		1,502	GovDelivery report
2/23/2023, 2/28/2023, 3/9/2023, 3/16/2023	Mountain View Community Center	GSI Maintenance Training for BernCo Land Management, Drainage Maintenance, and Clean Team staff	Education for landscape maintenance staff for understanding what Green Stormwater Infrastructure is, how to maintain GSI facilities, and how to maintain plants in and around these facilities.	Water Conservation, Stormwater Quality	Arid LID Coalition	60	headcount at training



Q4

4/1/2023 – 5/27/2023	Gutierrez Hubbell House (6029 Isleta Blvd SE, Albuquerque, NM 87105)	Irrigation Efficiency Exhibit	Exhibit based on content from Water Authority’s Irrigation Efficiency Guide. Addresses how to efficiently water different types of landscapes, using drip irrigation, spray irrigation, hose watering, flood irrigation, and rainwater harvesting. Includes hands-on elements to demystify irrigation systems. In English and Spanish.	Water Conservation, Stormwater Quality	Water Authority, Middle Rio Grande Conservancy District, Arid LID Coalition, Groundwork Studio	704	Individual and group visitor counts per Open Space (Dave Ottaviano)
4/8/2023	Gutierrez Hubbell House (6029 Isleta Blvd SE, Albuquerque, NM 87105)	Tree Irrigation Workshop	Hands-on workshop on how to install drip irrigation for trees. Workshop attendees installed new drip lines to trees in Gutierrez Hubbell House Medicinal Garden.	Water Conservation	Water Authority, Middle Rio Grande Conservancy District, Arid LID Coalition, Groundwork Studio	16	Workshop headcount
4/13/2023	TransCon, Las Cruces, NM	Panel: Why GSI? Green Stormwater Solutions for Transportation Infrastructure	Panel presentation regarding GSI in transportation projects	Water Conservation/ Stormwater	BHI, NMDOT, PLAND Collaborative	40	Estimate
4/15/2023	Gutierrez Hubbell House (6029 Isleta Blvd SE, Albuquerque, NM 87105)	Perennial Irrigation Workshop	Hands-on workshop on how to install drip irrigation for perennials and grasses. Workshop attendees installed new drip lines to perennials in Gutierrez Hubbell House Medicinal Garden.	Water Conservation	Water Authority, Middle Rio Grande Conservancy District, Arid LID Coalition, Groundwork Studio	10	Workshop headcount
4/17/2023	Bernalillo County Alvarado Square	NRS Earth Day Lunch and Learn – Bioremediation in GSI Features	Presentation from this year’s Land and Water Summit by Reese Baker of the RainCatcher. After hearing the talk you’ll understand why we can’t stop talking about GSI and that there are simple solutions all around us to improve water quality and the urban environment.	Water Conservation, Stormwater Quality	Reese Baker, RainCatcher	22	attendance
4/19/2023	Bernalillo County Alvarado Square	IDDE training	Training for Bernalillo County Zoning Enforcement staff for illicit discharge detection and elimination	Stormwater Quality		8	attendance
4/22/2023, 6/10/2023, 6/24/2023	Tijeras Creek Remediation Project	TCRP workday, 3 hrs each	Working on watershed restoration by addressing erosion, removing invasive plants, addressing tree health (pruning dead/broken branches), had watering	Water Conservation, Stormwater Quality	Ciudad SWCD, TCWC organization members	19	attendance



4/23/2023	Westside Community Center	South Valley Pride Day	Natural Resources Services table in Bernalillo County tent. Provided information to educate County residents on stormwater quality, water conservation methods and incentive programs, and groundwater monitoring program.	Water Conservation, Stormwater Quality		4,000	Estimate
4/26/2023	Albuquerque Open Space Visitors Center (6500 Coors Blvd NW, Albuquerque, NM 87120)	Green Stormwater Infrastructure Maintenance Training through ABCWUA WaterSmart Academy	Cofacilitated training with MRWM Landscape Architects on arid-adapted green stormwater infrastructure maintenance for an audience of landscape professionals.	Stormwater, Water Conservation	ABCWUA, MRWM Landscape Architects	4	attendance
4/29/2023	Gutierrez Hubbell House (6029 Isleta Blvd SE, Albuquerque, NM 87105)	Drip Irrigation Fundamentals Workshop	Hands-on workshop on how to build a drip irrigation system that attaches to a hose bib and how to make the most common repairs to a drip system.	Water Conservation	Water Authority, Middle Rio Grande Conservancy District, Arid LID Coalition, Groundwork Studio	16	Workshop headcount
5/13/2023	James McGrane Public Safety Complex (48 Public School Rd, Tijeras, NM 87059)	Tablazon Groundwater	Presentation to Tablazon Water Users Association on Updates to the Groundwater Program, Sandia Basin Closure update, East Mountain and Tablazon water level trends.	Hydrogeology		30	TWUA sign in sheet
5/18/2023	GovDelivery Email	News Bulletin	News Bulletin advertising new Passive Rainwater Harvesting Guide, Next Generation Water Summit, changes to Water Conservation Incentive Program	Water Conservation, Stormwater Quality		1,972	GovDelivery report
5/25/2023	Online	Tijeras Creek Natural Resources Cluster Meeting	Tijeras Creek Watershed Restoration Project discussion and solicitation of ideas for project; watershed planning for the Upper Tijeras Creek Watershed	Stormwater Quality	Ciudad Soil and Water Conservation District, Bernco OS, City OS	11	meeting headcount
6/3/2023	Paradise Hills Community Center	Day in Paradise community event	Evening in Paradise – District focused general community event	Water Conservation, Stormwater Quality		1,700	
6/8/2023	Los Vecinos Community Center (478 NM-333, Tijeras, NM 87059)	Comprehensive Plan Community Update – South Valle	Comprehensive Plan community meeting, Staff offered general support for Q&A for environmental issues	Stormwater/ Water Conservation / Hydrogeology / Review & Permitting		30	Estimate
6/13/2023	Westside Community Center	Comprehensive Plan Community Update - South Valley	Comprehensive Plan community meeting, Staff offered general support for Q&A for environmental issues	Stormwater/ Water Conservation / Hydrogeology / Review & Permitting		40	Estimate



6/17/2023	TCRP, Carlito Springs	Master Naturalist presentation re: stormwater and watershed restoration; geology and hydrogeology	Stormwater, watershed restoration, invasive plant species; geology and hydrogeology of the Sandia Mtns	Stormwater/ Hydrogeology	Ciudad SWCD, TCWC organization members	25	Estimate
6/22/2023	Raymond G. Sanchez Community Center	Comprehensive Plan Community Update – North Valley and District 4	Comprehensive Plan community meeting, Staff offered general support for Q&A for environmental issues	Stormwater/ Water Conservation / Hydrogeology / Review & Permitting		40	Estimate
6/23/2023	Alvarado Square	Comprehensive Plan Community Update – Business Community	Comprehensive Plan community meeting, Staff offered general support for Q&A for environmental issues	Stormwater/ Water Conservation / Hydrogeology / Review & Permitting		40	Estimate
6/27/2023	Online	Comprehensive Plan Community Update - All areas Hybrid Meeting	Comprehensive Plan community meeting, Staff offered general support for Q&A for environmental issues	Stormwater/ Water Conservation / Hydrogeology / Review & Permitting		40	Estimate



ONE ALBUQUERQUE

city of albuquerque



City of Albuquerque

Public Participation Numbers

The City of Albuquerque has provided the following in support of the MS4 permit in fiscal year 2023:

City of Albuquerque MS4 Training:

SWPPP: 148 employees
SPCC: 184 employees

COA Parks and Open Space

Planting Numbers for this fiscal year

Groups: 30

Estimated – 50 Classes that made up the groups

RiverXChange Numbers for this year:

Youth: 1,044

Pre-Lesson Students Served: 914

Classrooms: 45

Classrooms: 45

Adults: 271

Pole Planting Students Served: 886

Pole Planting Adults Served: 152

Pole Planting Trees: 482

Visitor Services Projects

(annual projects, Saturday volunteer days and scout groups)

156 youth and 567 adults = 723

Total hours = 3,615

Visitor Center

Total Volunteers: 881

Total Volunteer hours = 6,069 (does not include clean-up)

NMDA Conference – 1,060 attendees

Materials distributed:

- 150 Reduce Pollution at Home Brochures/Rack Cards
- 100 Fog Brochures
- 150 New Pet Brochures
- 60 Poop Fairy Rack Cards
- 100 Oval Poop Stickers
- 100 KeeptheRioGrand Bumper Stickers
- 20 Old Version Scoop the Poop Bumper Stickers
- 50 Dogs w Poop bags
- 100 City of ABQ water drops
- 75 Poop Emoji Masks

COA Solid Waste Department

Community Volunteer Events

- Fixit Clinic – 47 participants, 15 volunteers
- Company's Comin' – 662 participants (13.5 tons of trash collected)
- One Albuquerque Cleanup Day – 718 participants (18.02 tons of trash collected)
- Junk Jog – 75 participants, 9 volunteers (4.74 tons of trash collected)
- HHW Collection Event – 22,191 lbs. of HHW (and 4,691.66 lbs. of non-regulated solid waste) from 309 residents
- Treecycling – 48.5 tons or 6,461 trees
- Recyclothes – 4.2 tons of clothing collected

Social Media Outreach



(X, formerly Twitter)

178,434 impressions, 4,321 engagements



Facebook

126,786 impressions, 9,165 engagements



Instagram

124,871 impressions, 4,267 engagements

Planting Numbers for 2021–2022

Trees Planted

Date	School	Adults	Students	Trees	Date	Group	Adults	Students	Trees		
12.15.22	Bel Air	5	37	18	3.2.23	La Mesa	5	38	40		
12.16.22	Mission Avenue	3	31	25	3.3.23	La Mesa	4	33	44		
1.12.23	Zia	10	38	25	3.8.23	Holy Ghost 5th and 6th grades	3	33	17		
1.13.23	Puesta del Sol	3	32	8	3.9.23	Cochiti	15	35	43		
1.19.23	North Valley Academy	6	29	14	3.10.23	Lavaland/Monte Vista	5	37	41		
1.20.23	Puesta/North Valley	7	44	17	3.11.23	UNM/ Peace Corps	46	22	46		
1.24.23	Holy Ghost 5th and 6th grades	Cancelled–to be rescheduled			3.12.23	Jewish Community	15	8	14		
1.25.23	Puesta del Sol	4	39	16	3.14.23	John Baker Elementary	Cancelled–to be rescheduled				
1.26.23	Seven Bar	6	41	16	3.16.23	Martin Luther Kink	4	58	35		
1.27.23	Seven Bar	4	28	12	3.17.23	Martin Luther Kink	Cancelled–to be rescheduled				
2.2.23	San Antonio	12	48	13	3.29.23	Cottonwood Classic High	3	20	14		
2.3.23	John Baker	11	42	10	3.30.23	Holy Ghost 7th and 8th grades	2	32	100		
2.9.23	San Antonio/ Chaparral	11	51	11	3.31.23	John Baker Elementary	9	35	14		
2.10.23	Monte Vista	12	45	19	TOTALS				-	-	-
2.11.23	UNM Peace Corps	23	4	29	<p>Groups: 30 Estimated – 50 Classes that made up the groups Youth 1,044, Adults 271</p> <p>Trees 754 (Cottonwood and Black Willow) Trees Remaining in troughs – 54</p> <p>RiverXChange Numbers Specifically: Pre-Lesson Students Served: 914 Classrooms: 45 Pole Planting Students Served: 886 Pole Planting Adults Served: 152 Pole Planting Trees: 482</p>						
2.15.23	Holy Ghost 7th and 8th grades	Cancelled–to be rescheduled									
2.16.23	Valle Vista	5	40	25							
2.17.23	Chaparral	10	51	16							
2.18.23	Sandia Civitans	18	4	38							
2.22.23	Cottonwood Classic High	Cancelled–to be rescheduled									
2.23.23	Maggie Cordova Elementary	5	44	18							
2.24.23	Maggie Cordova Elementary	5	45	16							



Total Waste Diverted

		FY22 Total HHW (lbs) Diverted from Landfill																	
Calendar Year	Month	Recycled Waste																	
		Reuse Center	RC0014 Waste Oil	RC5056 Motor Fluids	RC0016 Lead Acid Batteries	RC6006 Mercury	ACT15687 Household Paint, xylene, toluene etc	RC0011 Aerosols	RC7485 Alkaline Batteries	RC7486 Lithium Batteries	RC6254 NiCad Batteries	ACT46232 Compact Bulbs, CFL	ACT46233 HID Lamps	ACT46235 4 Foot Lamps	RC7658 8 Foot Lamps	ACT50491 Non PCB Ballast	ACT58121 Fire Extinguisher	ACT58246 Fertilizer	
2021	Jul	2,250		26,721	2,100	26		2,932	1,128			321		54		300			
	Aug	1,530		15,085				1,414	322		164	120	116	30					
	Sep	1,134		11,197				1,775	200	245	450	120	155	71					
	Oct	1,530		24,741				1,189	455			240	120	46			100		
	Nov	1,290	180	12,866	2,000			1,980	1,100			180	62						
	Dec	798		11,210				550		300			40						
	MID YEAR		8,532	180	101,820	4,100	26	0	9,840	3,205	545	614	981	0	547	147	300	100	0
2022	Jan	1,128		7,680				550	300			120	20						
	Feb	1,206		9,150					300	250			64	31					
	Mar	1,866		18,340	1,200			2,500	800	500		100	41	25	250	200			
	Apr	2,250		16,530			1,630	1,200			275	100	59				250		
	May	2,472		19,465	480		550	1,550				260					180		
	Jun	3,012		20,265			5,950	1,000								250	150		
	TOTAL (lbs)		20,466	180	193,250	5,780	26	8,130	16,640	4,605	1,295	889	1,561	0	731	203	800	880	0

* Misc = Compact Bulbs, 4 ft lamps, Ballast, PCB Capacitors, Carbides, Phosphides, Fertilizers, CO2 Cylinders, etc...

TOTAL	345,540
TOTAL Recycled Waste	227,832
% Recycled	65.9%

PO Amount:	\$1,000,500.00
Paid Amount:	\$954,466.81
Amount left on PO:	\$46,033.19

PO# DSW0016901
PO# DSW0022306

* Information on this report is gathered from the Reuse forms sent by mail from ACT and the breakdown of items processed list sent by email monthly by Nicole Gwash

Sent for Destruction									TOTAL	Total Pounds Recycled	Tons Recycled	Total Destroyed	Amount Paid
RC0012 Acids	RC0013 Bases	RC0015 Flamables Toxics Incenerated	RC6002 Toxic-Solid (Poisons)	RC7129 Compressed Gas	RC7182 Oxidizers	ACT145226 Pesticides Liquid Toxic	Misc*	TOTAL					
1,119	2,407	137	1,209			2,261		42,965	July	35,832	17.92	3.57	\$105,924.00
1,646	10,985		930	362		1,547		34,251	August	18,781	9.39	7.74	\$91,903.31
1,985	860		816	180		1,414		20,602	September	15,347	7.67	2.63	\$86,831.00
2,858	8,838		600	100		3,904		44,721	October	28,421	14.21	8.15	\$85,161.75
3,160	7,190		710	110		1,700		32,528	November	19,658	9.83	6.44	\$72,841.00
1,260	1,230					2,400		17,788	December	12,898	6.45	2.45	\$59,653.00
12,028	31,510	137	4,265		0		0	192,855					
2,085	3,500					1,050		16,433	January	9,798	4.90	3.32	\$66,513.25
1,200	1,903		1,000	233		1,000		16,337	February	11,001	5.50	2.67	\$47,311.00
980	390		500	100		1,500		29,292	March	25,822	12.91	1.74	\$64,536.25
580	180		550			550		24,154	April	22,294	11.15	0.93	\$83,559.75
2,375	705		950			1,100		30,087	May	24,957	12.48	2.57	\$86,074.75
1,855	850		1,100			1,950		36,382	June	30,627	15.31	2.88	\$104,157.75
21,103	39,038	137	8,365		0		0	345,540		255,436	127.72	34.32	\$954,466.81

City of Albuquerque and Bernalillo County: Public Participation Numbers

Household Hazardous Waste Collection Participation											
July 2021- June 2022											
Month	Participants w/Unknown Location or Not Enough Info to Geocode	Total	Orphaned waste at facility	City Participants (City + No Match or Not Enough Info)	County Participants	Out of County	Out of County Breakdown	County Percentage	Monthly Cost	Light Bulbs (add on to monthly cost)	Total Cumulative Cost
Jul-22	141	1465	0	1271	191	3	3-Sandoval County	13.0%	\$95,225.00	\$2,146.75	\$97,371.75
Aug-22	128	1344	0	1162	178	4	4-Sandoval County	13.2%	\$87,360.00	\$2,537.75	\$89,897.75
Sep-22	136	1248	0	1083	163	2	2-Sandoval County	13.1%	\$81,120.00	\$891.50	\$82,011.50
Oct-22	143	1101	0	954	146	1	1-Sandoval County	13.3%	\$71,565.00	\$2,788.75	\$74,353.75
Nov-22	90	865	0	751	110	4	4-Sandoval County	12.7%	\$56,225.00	\$503.25	\$56,728.25
Dec-22	115	820	0	705	115	0	-	14.0%	\$53,300.00	\$1,469.50	\$54,769.50
Jul-Dec 2022	753	6843	0	5,926	903	14		13.2%	\$444,795.00	\$10,337.50	\$455,132.50
Jan-23	76	833	0	710	121	2	2-Sandoval County	14.5%	\$54,145.00	\$1,065	\$55,210.00
Feb-23	169	718	0	624	94	0	-	13.1%	\$46,670.00	\$1,475	\$48,145.25
Mar-23	288	1014	0	913	101	0	-	10.0%	\$65,910.00	\$6,000	\$71,910.00
Apr-23	378	1232	0	1115	117	0	-	9.5%	\$80,080.00	\$1,286	\$81,366.00
May-23	404	1359	0	1223	136	0	-	10.0%	\$88,335.00	\$1,158	\$89,492.75
Jun-23	476	1532	0	1,371	161	0	-	10.5%	\$99,580.00	\$1,446	\$101,026.00
Jan-Jun 2023	1,791	6,688	0	5,956	730	2		10.9%	\$434,720.00	\$12,430	\$447,150.00
FY23 Total	2,544	13,531	0	11,882	1,633	16		12.1%	\$879,515.00	\$22,768	\$902,282.50
				Participant Total (other than orphaned)		13,531				\$22,768	
Monthly Average	1128										
Participant Fee		\$ 65.00									
								Participants	Percentage	Cost	
								BERNCO Participation to date			
								1,633	12.1%	\$106,145	
								Unknown or Not Enough Info to Geocode (costs absorbed by COA)			
								2,544	18.80%	\$165,360	
FY23 Budget		\$ 1,000,000.00									
Remaining Balance		\$ 97,717.50									

All information in this report comes from ACT—Nichole Gwash (NGwash@ACTEnviro.com) by email. She will send an invoice, a list of residents (which must then be sent to Ben Sanborn for geocoding), a list of items processed, and any logs for drums and light bulbs & tubes.



Silt/Trash/Debris/Vegetation Removed from Arroyos & Catch Basins

Silt/Trash/Debris/Vegetation Removed from Arroyos & Catch Basins																	
Cerro Colorado Landfill																	
2022 ▶	July	August	September	October	November	December	2023 ▶	January	February	March	April	May	June				
	Trips	Trips	Trips	Trips	Trips	Trips		Trips	Trips	Trips	Trips	Trips	Trips	Trips	TOTAL	Trips	Qty.
Tandem	13	7	15	7	6	7		9	4	26	14	8	16	TOTAL	132	1,320.0 cubic yards	
Bobtail	0	15	1	0	0	0		0	0	4	5	0	2	TOTAL	27	162.0 cubic yards	
TOTALS	13	22	16	7	6	7		9	4	30	19	8	18	TOTAL	159	1,482.0 cubic yards	
															One (1) Tandem Load is approximated to equal:		9.0 cubic yards
															One (1) Bobtail Load is approximated to equal:		6.0 cubic yards
Southwest Landfill																	
2022 ▶	July	August	September	October	November	December	2023 ▶	January	February	March	April	May	June				
	Trips	Trips	Trips	Trips	Trips	Trips		Trips	Trips	Trips	Trips	Trips	Trips	Trips	TOTAL	Trips	Qty.
Tandem	0	0	0	0	0	0		0	0	0	0	0	0	TOTAL	0	0.0 cubic yards	
Bobtail	0	0	0	0	0	0		0	0	0	0	0	0	TOTAL	0	0.0 cubic yards	
TOTALS	0	0	0	0	0	0		0	0	0	0	0	0	TOTAL	0	0.0 cubic yards	
															TOTAL For Fiscal Year 2023 Both Landfills:		1,482.0 cubic yards
															FY-2022 Cubic Yardage Totals Reported:		3,712.0 cubic yards



Fiscal Year 2023

Data Entered has been acquired from Supervisors' Section Spreadsheets which are based on Landfill Ticket Data

Reported In Calendar Year	Reporting Month	Reporting Section City East Side Sweeping		Reporting Section City West Side Sweeping		Reporting Section City Trouble Shooters		Reporting Section *Storms & Arroyos Sections	
		Tons	Cubic Yards	Tons	Cubic Yards	Tons	Cubic Yards	Tons	Cubic Yards
2022	July	297.65	240.00	242.29	260.00	11.65	52.00	94.23	130.00
2022	August	177.61	180.00	286.41	270.00	17.51	58.00	98.28	160.00
2022	September	161.12	170.00	167.63	200.00	24.52	52.00	150.56	156.00
2022	October	209.20	220.00	168.18	190.00	9.89	48.00	63.02	70.00
2022	November	160.19	240.00	191.58	270.00	35.97	46.00	21.45	60.00
2022	December	264.59	370.00	223.55	330.00	20.80	50.00	45.68	70.00
2023	January	160.47	200.00	306.71	330.00	78.99	94.00	72.32	90.00
2023	February	150.00	180.00	121.94	190.00	6.39	70.00	9.22	40.00
2023	March	228.56	230.00	223.69	250.00	20.81	60.00	282.40	284.00
2023	April	184.11	200.00	153.66	210.00	4.83	36.00	113.84	170.00
2023	May	196.56	250.00	176.50	230.00	10.73	58.00	94.48	80.00
2023	June	204.82	220.00	103.76	156.00	34.68	98.00	94.72	172.00
Section's Totals For FY2023 ▶		City East Side Sweeping		City West Side Sweeping		City Trouble Shooters		*Storms & Arroyos Sections	
		Tons	Cubic Yards	Tons	Cubic Yards	Tons	Cubic Yards	Tons	Cubic Yards
		2,394.88	2,700.00	2,365.90	2,886.00	276.77	722.00	1,140.20	1,482.00
		\$71,846.40		\$70,977.00		\$8,338.50		\$34,206.00	

COA / DMD / SMD Trouble Shooters & East & West Side Sweeper Section's Combined Total Tons Reported for Fiscal Year 2023:	5,037.55 Tons	Cost Paid Per Ton	\$30.00	Total Paid FY-2023	\$151,126.50
COA / DMD / SMD Trouble Shooters & East & West Side Sweeper Section's Combined Total Cubic Yards Reported for Fiscal Year 2023:	6,308.00 Cubic Yards				

COA / DMD / SMD Storm & Arroyo Maintenance Section's Combined Total Tons Reported for Fiscal Year 2023:	1,140.20 Tons	Cost Paid Per Ton	\$30.00	Total Paid FY-2023	\$34,206.00
COA / DMD / SMD Storm & Arroyo Maintenance Section's Combined Total Cubic Yards Reported for Fiscal Year 2023:	1,482.00 Cubic Yards				

All Four Reporting Sections Combined Total Tons Reported for Fiscal Year 2023:	6,177.75 Tons	Cost Paid Per Ton	\$30.00	Total Paid FY-2023	\$185,332.50
All Four Reporting Sections Combined Total Cubic Yards Reported for Fiscal Year 2023:	7,790.00 Cubic Yards				





ACT Environmental Services
 208 Murray Road SE
 Albuquerque, NM 87105
 (505) 445-9400 ext. 410 Office
 E-mail: mthornton@ACTEnviro.com

HHW Chemical Waste Inventory:

Project Name: Albuquerque/Bernalillo County Household Hazardous Waste Collection Event
 5000 Balloon Fiesta Parkway
 Albuquerque, NM 87113

Job Date: November 13, 2021

Client: City of Albuquerque/Bernalillo County

Report Date: January 25, 2022

Author: Melanie Thornton / Martin Aranda

Site Contact(s): Jake Daugherty

On November 13, 2021, ACT Environmental Services, and the City of Albuquerque/Bernalillo County, in a joint effort collected, segregated, packaged, labeled, transported, and disposed of 48,373 pounds of Household Hazardous Waste, and 10,380 pounds of Non-Regulated Solid Waste from 585 residents from residents within the Albuquerque/Bernalillo County at an average of 100.43 pounds of waste per customer.

This work was performed per the Scope of Work given to ACT by the City of Albuquerque/Bernalillo County. A copy of each HHW Chemical Waste Manifest/Bill of Ladings was provided to the City Representative at the time of collection.

Is there info. for this page, or is it eliminated?

Is there info. for this page, or is it eliminated?

DOT Hazard Class	Subsidiary Risk	Types of Chemicals	Total Gross Weight	Number of Drums X Size of Drums	Treatment Technology
Non-Haz		Used motor oil & Antifreeze	8,262 lbs.	4 X 275 Portable Totes	Recycle
Non-RCRA/Non-DOT Regulated Material Solid		Solid waste, empty containers, trash	10,380 lbs.	4 X 40 Yard Bins	Landfill
Non-RCRA/Non-DOT Regulated Material Liquid		Latex Paint	27,280 lbs.	1 X 20 Yard Bin 1 x 30 Yard Bin	Landfill
2.1 – Flammable Gas		Aerosol Spray Cans	1,686 lbs.	3 X 275 Cubic Yard Box	Energy Recovery / Fuel Blending
3 – Flammable Liquid		Paint Related Material	3,511 lbs.	10 X 55 Gallon Metal Drum	Energy Recovery / Fuel Blending
3 – Flammable/Toxic Liquid	6.1 - Toxic	Captan, Diazinon	2,887 lbs.	16 X 55 Gallon Poly Drum	Energy Recovery / Fuel Blending
5.1 – Oxidizing Solids		Potassium Nitrate/Sodium Hypochlorite	12 lbs.	1 X 05 Gallon Poly Drum	Incineration
6.1 – Toxic Solid		Captan, Diazinon	944 lbs.	6 X 55 Gallon Poly Drum	Energy Recovery/Fuel Blending
8 – Corrosive (Acids)		Hydrochloric Acid, Sulfuric Acid	342 lbs.	2 X 55 Gallon Poly Drum	Stabilization / Landfill
8 – Corrosive (Basic)		Sodium Hydroxide, Potassium Hydroxide	1,491 lbs.	8 X 55 Gallon Poly Drum	Stabilization / Landfill
8 – Corrosive (Batteries)		Automotive Lead Batteries, NiCad, Lithium Ion, Alkaline	1,340 lbs.	1 x Wooden Pallet, 2 x 30 Gallon Poly Drum, 5 x 5 Gallon Poly Drums	Recycle
8 – Mercury		Mercury	5 lbs.	1 X 5 Gallon Poly Drum	Recycle
9 – Environmentally Hazardous		Fluorescent Light Bulbs	613 lbs.	9 x Cylinder Box & 1 x 55 Gallon Poly Drum	Recycle



Albuquerque/Bernalillo County Household Hazardous Waste Collection Event at Balloon Fiesta Park

Treatment Technology	Weight
Recycle	10,220 lbs.
Energy Recovery / Fuel Blending	9,028 lbs.
Incineration	12 lbs.
Landfill	39,493 lbs.

Is there info. for this page, or is it eliminated?

Waste Total	Cost	Cost/lbs.
58,753 lbs.	\$40,663.75	\$1.44/lbs.

585 – Albuquerque/Bernalillo County Participants

We are committed to working with you in fulfilling the environmental needs of our communities.

Melanie Thornton
ACTEnviro Office Manager - ABQ



2022 Foothills Spring Cleanup Results (1 of 2)

2022 Foothills Spring Cleanup Results											
Location	Volunteers	Dog Poop (in Lbs.)	Trash (bags)	Trash * (cubic yards)	Mixed Recycling (bags)	Glass (5 gal buckets)	Aluminum (bags)	New Trail Built (miles)	Trail maintained (miles)	Notes:	
Rt 66	29			14.5	6	4	2	0.1		Large items included numerous tires and a mattress, 2 trail crews completed the a reroute	
Copper	51	40	5	0.9	1	1	0.33		0.5	4 trail crews did maintenance on .5 miles of trail. One cactus crew closed off several social trails	
Indian School	43	25	1	0.2	1	0.5	0		0.45	4 trail crews did maintenance on about .45 miles of trail. Two cactus crews planted hundreds of cactus cuttings to block social trails.	
Menaul	55	35	3	0.5	1	2.5	1		0.4	four trail crews did maintenance on about .4 miles of trail. Three cactus planting crews planted hundreds of cuttings to block off social trails	
Piedra Lisa	39	25	0.5	0.1	0.5	2	0.5		0.25	1 trail crew built 27 drain dips on .25 miles of trail. 2 rock crews built steps on the Canyon Trail, 1 cactus planting crew planted hundreds of cactus cuttings on a variety of short cuts, and 1 graffiti crew scrubbed graffiti off a rock outcrop.	
Embudito	31	20	1	0.2	1	0.33	0.25		0.2	1 trail crew built 20 drain dips and did general maintenance on .2 miles of trail, 1 rock crew reinforced several rock ramps on Trail 365, and 2 Cactus planting crews planted hundreds of cactus cuttings on several social trails adding up to .15 miles of trail closure.	
*trash bags converted to cubic yards and added to cubic yard total											
2022 River Cleanup											
	102			15	10	6	2			Filled a dump trailer, plus 4 pickup trucks. Large items: 12 tires, 5 shopping carts, and a vinyl kiddie pool	
2022 National Trails Day											
	100							0.04	1.4	4 crews planted cactus on short cuts and social trails 6 crews did maintenance on approximately 1.4 miles of trail 2 crews built rock retaining walls 1 crew built a trail reroute (about 190 feet) to replace several social trails several volunteers cleaning up dog poop and trash	

Is there info. for this page, or is it eliminated?



city of albuquerque



2022 Foothills Spring Cleanup Results (2 of 2)

		Volunteers	Dog Poop (in Lbs.)	Trash (bags)	Trash (cubic yards)	Mixed Recycling (bags)	Glass (5 gal buckets)	Aluminum (bags)	New Trail Built (miles)	Trail maintained (miles)
Totals		450	145	10.5	31.4	20.5	16.33	6.08	0.14	3.2
Dia del Rio										
Make a Diff Day										
Grand Total		652	145	10.5		30.5	22.33	8.08		



Is there info. for this page, or is it eliminated?



**THERE IS NO POOP FAIRY
SCOOP YOUR POOP**

**GRAB IT
BAG IT
TOSS IT**



BERNALILLO COUNTY 
WE'RE MORE THAN YOU THINK

Poop Fairy Signs

During FY22 we distributed 276 Poop Fairy signs to local residents. We also gave 250 to Parks and Open Space for posting.

Is there info. for this page, or is it eliminated?

Mid Rio Grande Stormwater Quality Team



In fiscal year 2023, the Stormwater Quality Team attended the annual Corrales Harvest Festival, a rural community just north of Albuquerque, the Doggie Dash and Dawdle, an event that fundraises on behalf of the local Animal Humane.



Additionally, the group attended a number of community events in Albuquerque's South Valley and West Side. During each event educational rack cards and various promotional products were distributed.

The team also produced a Spanish section of the KeepTheRioGrand.com website.



And finally, the team created custom content and posts on Facebook.



Village of Corrales

The Village of Corrales has no municipal storm sewer system. To handle stormwater flows from development, engineered grading and drainage (G & D) plans are required prior to any residential construction that will disturb more than 1,000 square feet. Engineers may design berms, swales, retention ponds and other aspects to keep new impervious surface (roofed or paved) stormwater flows on the subject property and not running into streets or adjacent properties.

Within the Commercial zone, stormwater retention areas must be built into Site Development Plan drawings before those applications can be heard by the Planning and Zoning Commission.

In FY23, the Village saw 21 residential grading and drainage plans prior to issuing building permits. There were four Commercial Site Plans that incorporated drainage (primarily retention ponding) into their designs. One was the Village of Corrales administration complex, which added a new swale on the north side of the property along with the two existing retention areas.

This fiscal year, the Corrales Bosque Advisory Commission in conjunction with the Corrales Fire Department continued their efforts to encourage dog waste pick-up along popular pedestrian areas into the Bosque and elsewhere in the Village. There are nine waste bag stations and trash receptacles located at Bosque access gates, Camino de la Tierra (entrance to

popular Sand Dunes walking area) and at Quirks Lane. CBAC provided approximately 8,500 dog poop bags in/near the Bosque, and an additional 500 bags at the other location, greatly reducing the amount of dog waste otherwise in danger of polluting the acequias, canals or Rio Grande.

The glass recycling area continues to be amazingly successful. From April of 2022 through August 14, 2023, the Village has recycled 93.63 TONS of glass.

The Village is continuing the twice-a-year (spring and fall) community “Clean-Up” days, accepting non-hazardous and yard waste. Approximately 200 households per year participate. Our Code Enforcement Officer works with citizens throughout the year to have them remove trash, non-functional vehicles and other items that could leak fluids into the groundwater. There is no municipal water system; all structures are serviced by wells.

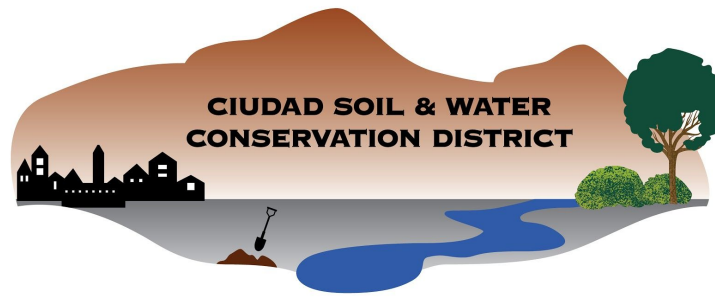
Every year during the Corrales Harvest Festival, which is attended by folks from throughout the metro, a Stormwater Team booth educates the public on the importance of keeping waste, oils, floatables and other items out of the river.

This year it was reported to the Village that a vehicle had leaked a significant amount of fluid along a public right-of-way, Tierra Encantada. Public Works used absorbents to clean up as much as possible.



Rio Rancho?

Is there info. for this page, or is it eliminated?



Ciudad Soil & Water Conservation District

Non RX Stormwater Presentations 2022

Date	Times	RR or ES	Event	Presenter(s)	Visitors
4.23.2022	9:00am–12:00pm	RR	RiverXchange Community Day	Erin, Steve, Salema	10
6.4.2022	9:00am–12:00pm	RR	BernCo Master Naturalist Presentation	Steve, Erin	25
6.11.2022	9:00am–12:00pm	RR	GHH	BernCo OSD	12
6.13.2022	9:00am–12:00pm	RR	Shady Lakes	Erin, Steve, Jaren (Nature Niños)	45
6.18.2022	9:00am–12:00pm	RR	Phil Chacon Park	COA OSD – Nature in Your Neighborhood	did not attend
6.13.2022	10:00am–1:00pm	RR	Shady Lakes: Nature Niños Summer Camp	Steve, Jaren, Saleema (Nature Niños)	40
6.23&25.2022	6:00–7:30pm 9:00–11:00am		Residential Rainwater Harvesting 2.0 (Online & In-person at GHH)	Jim	45
6.30.2022	10:00am–1:00pm	RR	Shady Lakes: Nature Niños Summer Camp	Steve, Jaren, Saleema	75
7.16.2022	9:00am–12:00pm	RR	Alamosa Community Center	Erin, Steve (COA OSD – Nature in Your Neighborhood)	35
7.25.2022	10:00am–1:00pm	RR	Shady Lakes: Nature Niños Summer Camp	Erin, Steve	75
7.30.2022	9:00am–2:00pm	RR	Isleta Environmental Fair	Steve Glass, Tom Allen Jaren Peplinski	75
8.22 & 24.2022	10:00am–2:00pm & 9:00am–11:00pm	RR	UNM Welcome Back Days	Kolt, Thomas, Steve, Erin	100
8.27.2022	9:00am–12:00pm	ES	TBD	COA OSD- Nature in Your Neighborhood	
8.27.2022	9:00am–1:00pm	RR	Santa Ana Environmental Fair	Jaren, Theresa	
9.24.2022	9:00am–12:00pm	RR	TBD	Erin, Steve (COA OSD – Nature in Your Neighborhood)	





3rd Quarter Report 2022-2023

January- March

Submitted by: Education Manager
Erin Blaz

The RiverXchange Team: Erin Blaz, Theresa Aragon, Astrid Mooney

Participating Schools:

FUNDER	MRGSQT		SSCAFCA	
	SCHOOL - Number of classes	Number of Students	SCHOOL - Number of classes	Number of Students
Title 1 school	La Mesa - 4	58	MLK* - 4	113
	Valle Vista* - 2	43	Maggie Cordova* - 4	100
	Seven Bar* - 3	45		
	John Baker- 2	41		
	Zia*- 2	40	OUTDOOR EQUITY FUND	
	Monte Vista - 3	48	Puesta del Sol* - 5	105
	Cochiti* - 2	47		
	North Valley Academy - 3	50		
	Mission Ave*- 2	54		
	Bel-Air* - 2	46		
	Lavaland* - 1	20		
	San Antonito - 3	71		
Chaparral* - 3	87			
TOTALS	32	650	13	318
RX Total Classes	45	RX Total Students	968	



Summary:

3rd Quarter: January- March are typically very active months for RiverXchange participants and staff. Pole planting with CABQ OSD occurs weekly, presentations are in full swing and this year, teachers were provided with a six week-long action project support campaign via weekly emails that contained summaries of each stage of the Earth Force process and resources. Theresa Aragon also developed and taught a new Agriculture lesson for APS classes since RiverXchange still has not found a partner with the capacity to serve the number of APS classes enrolled. The lesson focused on food waste, virtual water, and water conservation and was very much enjoyed by the classes. By the end of March, all but 2 RRPS classes had completed all the field trips. These field trips are rescheduled for May in partnership with Talking Talons Youth Leadership EPA field trips at the Tijeras Bio-Zone Education Center, along with Backyard Refuge and includes a stewardship component to help restore the Tijeras Creek riparian zone.

Mid-year: The 2nd quarter activities focused on scheduling and confirming presentations and the field trips; tracking presentations and scheduling reminder emails; and organizing the Earth Force *environmental action civics* process into an online classroom format on Canvas for teachers.

RiverXchange® remains focused on building meaningful watershed experiences for New Mexico students this year and has returned to a fully in person program for 2022-2023.

The agreement with the Middle Rio Grande Stormwater Quality Team (MRGSQT), including the contributions from Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA), provides funding for 38 classes this year. At the suggestion by SSCAFCA, Ciudad Soil and Water Conservation District (SWCD) applied for additional funds to support RiverXchange this year through the Outdoor Equity Fund Grant, and Ciudad SWCD was



www.ciudadswcd.org



Mid-year: Staff are working on guidance and criteria for awards to be released in January.

Task 12: Collect and analyze teacher feedback.

Complete by May 2023. Status: **approaching**

Staff will revise the teacher feedback form and offer it to teachers by the end of April.

Task 13: Create, print and mail thank you cards to in-kind partners and certificates of recognition to teachers.

Complete during June 2023. Status: **approaching**

We will maintain correspondence with our in-kind partners throughout the school year and send thank you notes as needed.

Task 14: Reporting to sponsors.

3rd quarter report by April 2023. Final report by June 2023.



www.ciudadswcd.org

505-225-7487



Additionally, the Outdoor Equity Grant experienced some hold-ups in the procedure around securing the agreement for the grant, so one school - Puesta del Sol, only came on just at the end of September once we were able to confirm the grant. Around late September most schools had fully confirmed their participating classrooms in RiverXchange, with two schools confirming classes that still did not have a teacher. The other teachers at these schools desired for those students to participate in the program and offered to support those classes until they were assigned a teacher.

Of the 16 schools participating this year, 6 are completely new schools to RiverXchange - Bel Air, Mission Ave., Lavaland, San Antonito, Chaparral and Puesta del Sol.

Task 2: Review and revise curriculum.

Complete by September 2022. **Status: completed.**

RiverXchange staff are proud of this program's continued ability to meet the unique needs of 5th grade teachers in our region. Many elementary teachers suggest that they are the least comfortable teaching science subjects and others reflect that the district purchased science curriculum doesn't provide the same quality of experiences as RiverXchange. One of our most long-standing RiverXchange teachers shared with us that their school consistently scored higher than average on science testing scores and accounts that to their participation in RiverXchange.

This year the RiverXchange [website](#) was significantly updated in effort to improve participating teachers familiarity with, understanding of, and successful use of the RiverXchange curriculum, which is unlike many standard curricula as it blends outside presenters and field experiences with project-based learning. The RiverXchange website now reflects how the curriculum is broken down into 3 areas of study (and the comparative activities and associated leaders of those activities): Understanding a Watershed (Teacher-led, ensures the foundation of



www.ciudadswed.org
505-225-7487



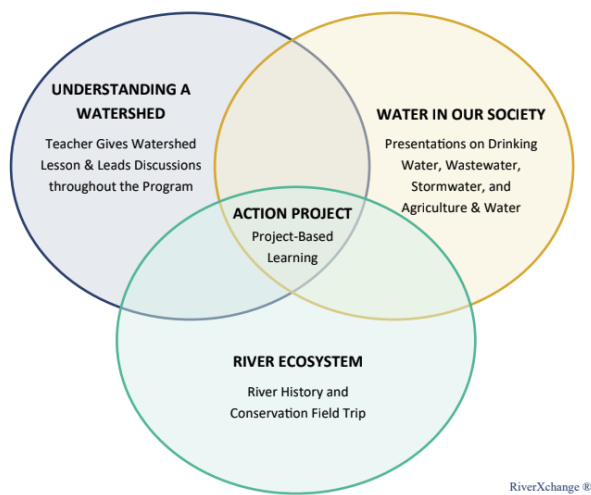
understanding a watershed with a Shower Curtain Watershed lesson or similar activity), Water in Our Society (Presentations with various agencies and presenters) and The River Ecosystem (Pre-lesson and field trip hosted by City of Albuquerque Open Space). These study areas have been defined in RiverXchange for many years through the Big Water Questions, which are suggested reflection prompts for students throughout the program. Using these three areas of study proved to be helpful in introducing RiverXchange to new teachers and refreshing experienced ones.

Most importantly, linking these 3 areas of study together is the Action Project. Using Project-based learning as a means to support student engagement in meaningful action in their watershed, the Action Project is a critical element of the RiverXchange curriculum. In its second year of delivery, previously called the capstone project, The Action Project aims to become a significant professional development opportunity for teachers as a means to deliver high quality STEM and civic engagement through project-based learning in their classroom. Students will benefit from the Action Project by acquiring a multitude of skills that are required to take meaningful action for watershed health. From interviewing stakeholders, collecting data, researching history, policy and practices around an issue, to reporting on and advocating for change through action, the Action Project will build on the core content of RiverXchange and help students understand what it takes to inspire, demand or be a leader for effective change.



www.ciudadswcd.org
505-225-7487





Task 3: Set teacher workshop dates and locations, review training agenda, order curriculum materials, and conduct workshops.

Complete by October 2022. **Status: completed.**

Two teacher workshops were held this year on September 23 and September 30 at the Open Space Visitor Center, with a total of 31 teachers in attendance. Teachers from Chaparral, San

Antonito and Puesta del Sol were unable to attend due to late registration to the program, however staff met with these teachers outside of the workshop to train them on the program and schedule their presentations.

This year's workshops featured BEMP educators Laura Pages and Annie Montes, who facilitated an activity called “Dabbling in Data.” In this activity, groundwater table data is recorded on graphs for multiple years to see seasonal trends and observe periods of drought or heavier than normal snowmelt or precipitation as a means to discuss the relationship between weather patterns, groundwater and ecosystem health. Highlighting BEMP as a collaborative partner with Ciudad SWCD and RiverXchange was helpful for teachers to see how our program fits into the larger landscape of watershed education in our community and how students will eventually build on RiverXchange in future outdoor and environmental education experiences.

The workshop also focused on the framework for The Action Project with teachers, with discussion in small groups on how to implement the project in the classroom. Reflections from that discussion was shared in the larger group, and while feedback was positive and enthusiastic,



www.ciudadswcd.org

505-225-7487



it demonstrated the need for even more clear and direct guidance on the framework, which was helpful for staff to understand so we can find a way to meet that need.

Task 4: Review Action Project format and reporting system.

Goal: Complete by September 2022. **Status: in process**

3rd quarter: With around half of the teachers present on the CANVAS platform to explore and utilize the Earth Force process, it was decided to do a six week email campaign to encourage teacher participation in the Action Project, continuing to use the Earth Force process as the guide. These emails also served as a reminder for the deadline to submit summaries of the action projects, along with guiding questions for submissions, and the award prizes (pizza party gift certificates for the first 10 classes to submit). Submissions were due March 17 before spring break and 10 teachers submitted videos or recordings of their students answering questions about their projects.

Mid-year: In October, Erin Blaz attended the North American Association of Environmental Education’s national conference in Tucson, AZ. At this conference, Ms. Blaz was introduced to Earth Force and their “Environmental Action Civics” process. This process is a fully developed framework for completing an action project and aligns with the RiverXchange Action Project Framework that was in development on our end. Earth Force freely shares its process for educational purposes and the integration of this process into RiverXchange has been discussed with their team. While our original framework for the Action Project included 5 steps and guiding questions, the Earth Force process has 6 steps with adjoining lesson plans, videos, activity templates, and helpful tips for each step. An overview of the Earth Force Resources can be found [here](#).



www.ciudadswed.org
505-225-7487



The project reporting system is in development. We are using a free online learning management system called Canvas to post the Earth Force Learning Process, much like an online class for teachers to follow and implement the process. Canvas allows teachers to upload content such as media files, which we are hoping to obtain for the Children’s Radio Hour show which will feature RiverXchange classes for their Earth Day segment.

Task 5: Review, update and distribute pre-survey to all classes before presentations begin and track completion.

Begin August 2022. On-going through Dec 2023. **Status: completed.**

This year’s survey was updated slightly with a change to the possible answers being narrowed to mostly True, False or I haven’t learned this yet. Rather than allowing students to only show a scaled response that either shows correct or incorrect knowledge, we are attempting to offer “I haven’t learned this yet” as a strategy to show authentic learning in post-survey.

The Pre-Survey can be viewed from : www.riverxchange.com/Survey

Task 6: Monitor, coordinate and provide support to teachers for Action Projects.

Begin December 2022. On-going through May 2023. **Status: approaching.**

3rd Quarter: As stated above, a six week email campaign was delivered to all teachers; each week focused on one of the six stages of the Earth Force process with supporting resources. As the Earth Force process is new to RiverXchange, we wanted to present the resources in a few different ways to increase access, while also being cautious of overwhelming teachers with emails and information. Additionally, RiverXchange staff meet with Earth Force representatives to discuss best practices for delivering Earth Force and getting action project reports or



www.ciudadswed.org
505-225-7487



summaries by students and teachers. RiverXchange staff was also invited to participate in the Earth Force Train the Trainer program in June, which offers a \$500 stipend for participation and demonstration of Earth Force implementation.

Mid year: Staff is making every effort to ensure teachers have easy access to the Earth Force materials as guidance for the Action Project. On November 30, staff hosted an Action Project Discussion on Zoom to review the Earth Force process, orient teachers to the Canvas classroom and show how to upload recordings of students reporting on their projects. Sixteen teachers attended this discussion and 19 teachers have joined the Canvas classroom.

Task 7: Coordinate field trips.

Begin September 2022. On-going through May 2023. **Status:** **in process.**

Field trip coordination is in progress with our main point person, Ellie Althoff, from CABQ-OSD. Ellie will continue to offer a field trip pre-lesson this year, focused on the River of Change from the Bosque Education Guide. Ellie is coordinating the field trips so that she will offer the pre-lesson the same week as the pole planting field trip. This is an exciting addition to the program as students will be taking immediate action by pole planting native trees after they learn about the impacts of flood control measures on the Bosque and riparian ecosystem of the Rio Grande. Field trips will begin in December and run through March on Thursdays and Fridays.

3rd Quarter: This year the pole planting took place in two locations. For January and February we planted at the Shining River Open Space, just south of Paseo del Norte on the east side of the



www.ciudadswcd.org

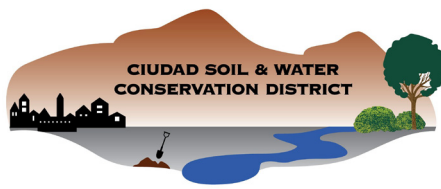
505-225-7487

Rio Grande. For March we moved to Gabaldon, just north of the 1-40 and east of the river. This location change was unique, and reflected new staffing at CABQ-OSD, however the desire to ensure a positive experience for everyone was consistent with prior years. The Shining River planting location was extremely challenging for students, adults and staff. The holes were extremely sandy, which meant they were hard to dig out with the hand augers and collapsed often. Most students struggled to get one tree in over the course of the field trip. Although it was challenging, it was possibly even more rewarding once they finished that one, hard-earned tree. Classes that planted in March still voiced an equal number of complaints over the hard work, even though they were able to get up to 4 trees in the ground per group! It goes to show that it is less about the number of trees they get and more about teaching perseverance with the students. It was also noticeable that many classes came to the pole planting with increased understanding of the flood control and management strategies that impact the Bosque ecosystem which informed why they were there, due to the pre-field trip lesson with CABQ-OSD.

Mid-year: Two field trips took place in December in the Bosque off of Paseo del Norte and Rio Grande. 68 students attended and 43 cottonwoods were planted. This site has been confirmed for January plantings, but Open Space is still evaluating the best location for Feb and March plantings. This is unique as most years OSD confirms all pole planting locations at once. Bus costs have increased significantly and staff is working on finding the best vendors to service the field trips.

Task 8: Coordinate classroom guest speakers.

Begin September 2022. On-going through May 2023. **Status:** **in process.**



www.ciudadswcd.org

505-225-7487



With the program moving to in-person presentations this year, coordinating and getting presenters back on board took a little extra effort as some had not presented for the last two years as they offered a video recording of the presentation instead (i.e. Rio Rancho Utilities, Sandia Labs). Additionally, both APS and RRPS required different levels of background checks. Ample notice was given to those presenters in order to complete those requirements.

APS

Drinking Water and Wastewater Presenters - Ellie Garcia & Rhea Trotman from ABCWUA
Stormwater - Sandia Labs, Leads- John Kay and Nora Wintermute and other various presenters.
Agriculture- Still TBD, BernCo Coop Ext can not serve the 32 classes. We are working to find a solution, as this continues to be a challenging presentation to fill in Albuquerque.
Field Trips and Pre-Lesson, Ellie Althoff and Kyle Bality of CABQ-OSD

RRPS

Drinking Water and Wastewater Presenters - Ellie Garcia. ABCWUA educators generously offered to cover RRPS this year, as the CoRR Utility dept was not yet ready due to new staff and capacity issues.
Stormwater - John Stomp and Andy Edmondson at SSCAFCA
Agriculture- Steve Lucero and Rachel Zweig, Sandoval County Coop Ext.
Field Trips and Pre-Lesson, Ellie Althoff and Kyle Bality of CABQ-OSD

3rd quarter: As is common with such a busy time of presentations, coordination of reschedules between presenters and classes probably happens the most during the 3rd quarter. Theresa Aragon managed these communications smoothly, while also designing a new agriculture + water lesson and teaching it to every APS class in RiverXchange. This was possible due to field



www.ciudadswcd.org

505-225-7487



trip leader funds that weren't utilized now that all pole planting field trips are for two classes at a time, rather than some being for one class only, which reduces the number of total field trips.

Mid-year: All presentations, except Agriculture for APS have been scheduled and confirmed with presenters and classrooms. RiverXchange staff are exploring options to present the Agriculture themselves, as it may be more efficient time and budget wise than seeking new partnerships with little time left to schedule.

Task 9: Review and track Action Project progress

Begin December 2022. On-going through May 2023. **Status: in process.**

3rd quarter: While the initial CANVAS participation by teachers in the 2nd quarter was encouraging, staff have only had one teacher upload any action project recording information on this platform. With Theresa visiting many classes in APS for the Agriculture Presentation and supporting the Pre-Lesson in RRPS, she was able to talk to teachers directly to encourage submissions and take videos herself to submit to the Children's Radio Hour. We were able to gather videos and voice recordings from 10 classes. This is definitely an area that needs evaluation and improvement, as it is difficult to retrieve details about each classroom's project as we are not really there to capture their work.

Mid-year: Staff have shared with teachers the importance of documenting the action projects along the process and have designated a place to upload recordings, documents or pictures to the Canvas classroom. The Canvas platform became accessible to teachers at the end of November and with December being a busy month, we expect to see more to report on in the 3rd quarter.



www.ciudadswcd.org
505-225-7487



Task 10: Distribute post-survey to classes after they complete presentations and field trip, complete metrics evaluation and review.

Begin February 2023. On-going through April 2023. **Status: approaching.**

3rd quarter: A few classes have completed their presentations and post-surveys are being distributed.

Task 11: Review Action Projects for RiverXchange Excellence and award winners.

April 2023. **Status: approaching.**

3rd quarter: This year, in collaboration with the Children’s Radio Hour, we are featuring students discussing their Action Projects on the Earth Day show in April. Our initial intention was to incentivize the classes with a feature on the Children’s Radio Hour as an award for teachers to submit their projects. However, as a result of few audio and video submissions received, we separated the pizza party awards and radio feature to boost overall project submissions by the deadline. In addition to the awards incentive, teachers were given the opportunity to submit their progress gradually and were encouraged to seek assistance from RiverXchange staff throughout each step of the Earth Force process. The weekly Earth Force email campaign was key in reinvigorating participation in sharing class’s Action Projects and delivering specific criteria to the teachers with the flexibility of incorporating their own process.

While presentations in the classroom began, students started making connections to the big water questions and how it relates to problems they were noticing in their own community. Many students jumped into action and started brainstorming their Action Projects by interviewing staff and students about the environmental issues they are trying to solve.



www.ciudadswcd.org
505-225-7487



Mid-year: Staff are working on guidance and criteria for awards to be released in January.

Task 12: Collect and analyze teacher feedback.

Complete by May 2023. Status: **approaching**

Staff will revise the teacher feedback form and offer it to teachers by the end of April.

Task 13: Create, print and mail thank you cards to in-kind partners and certificates of recognition to teachers.

Complete during June 2023. Status: **approaching**

We will maintain correspondence with our in-kind partners throughout the school year and send thank you notes as needed.

Task 14: Reporting to sponsors.

3rd quarter report by April 2023. Final report by June 2023.



www.ciudadswcd.org

505-225-7487





Mid-year Report 2022-2023

October-December

Submitted by: Education Manager

Erin Blaz

The RiverXchange Team: Erin Blaz, Theresa Aragon, Astrid Mooney

Participating Schools:

FUNDER	MRGSQT		SSCAFCA	
	SCHOOL - Number of classes	Number of Students	SCHOOL - Number of classes	Number of Students
Title 1 school	La Mesa - 4	58	MLK* - 4	113
	Valle Vista* - 2	43	Maggie Cordova* - 4	100
	Seven Bar* - 3	45		
	John Baker- 2	41		
	Zia*- 2	40	OUTDOOR EQUITY FUND	
	Monte Vista - 3	48	Puesta del Sol* - 5	105
	Cochiti* - 2	47		
	North Valley Academy - 3	50		
	Mission Ave*- 2	54		
	Bel-Air* - 2	46		
	Lavaland* - 1	20		
	San Antonito - 3	71		
	Chaparral* - 3	87		
TOTALS	32	650	13	318
RX Total Classes	45	RX Total Students	968	



Summary:

Mid-year: The 2nd quarter activities focused on scheduling and confirming presentations and the field trips; tracking presentations and scheduling reminder emails; and organizing the Earth Force *environmental action civics* process into an online classroom format on Canvas for teachers.

RiverXchange® remains focused on building meaningful watershed experiences for New Mexico students this year and has returned to a fully in person program for 2022-2023.

The agreement with the Middle Rio Grande Stormwater Quality Team (MRGSQT), including the contributions from Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA), provides funding for 38 classes this year. At the suggestion by SSCAFCA, Ciudad Soil and Water Conservation District (SWCD) applied for additional funds to support RiverXchange this year through the Outdoor Equity Fund Grant, and Ciudad SWCD was successfully awarded the full request of \$9,650.00 to support additional classes. The Outdoor Equity Funding also supports a review of practices for equity and inclusion in our program as well as the strengthening of those practices. In total, by the end of September the final numbers are 45 classes, with 968 students participating. Twelve out of the sixteen schools are designated Title I.

Additionally, during the 1st quarter Ciudad SWCD employed Jessica “Saleema” Robinson as an Education Assistant to support our education programs. During the first quarter Saleema supported curriculum development for RiverXchange. Due to other opportunities, Saleema’s time with Ciudad was short lived. However we were able to hire Theresa Aragon, a biologist and educator, to fulfill a role as Education Coordinator. Theresa has provided direct



www.ciudadswcd.org

505-225-7487



coordination and planning support for RiverXchange and remains employed with Ciudad SWCD.

Task 1: Recruit and select NM classes.

Complete by September 2022. **Status: completed.**

This year's recruitment for RiverXchange was met with a few obstacles. We found this year that many teachers' positions were changed at the beginning of the semester and in some schools all members of the prior 5th grade teaching cohort were in new positions. This made it difficult to predict how many classes from some schools would be joining RiverXchange, and if some schools would return at all. Colinas del Norte and Sandia Vista, both of whom have been with RiverXchange for at least 4 or more years and had significant teacher turnover, did not respond to our invitations to the program. As a result of the teacher scramble that ensued at the beginning of the year, RiverXchange staff reached out to presenters to see if they had contacts with schools that would be good candidates for RiverXchange. This proved to be a worthy effort because we were met with great interest, and only had to put two schools on the waitlist. Additionally, the Outdoor Equity Grant experienced some hold-ups in the procedure around securing the agreement for the grant, so one school - Puesta del Sol, only came on just at the end of September once we were able to confirm the grant. Around late September most schools had fully confirmed their participating classrooms in RiverXchange, with two schools confirming classes that still did not have a teacher. The other teachers at these schools desired for those students to participate in the program and offered to support those classes until they were assigned a teacher.

Of the 16 schools participating this year, 6 are completely new schools to RiverXchange - Bel Air, Mission Ave., Lavaland, San Antonito, Chaparral and Puesta del Sol.



www.ciudadswcd.org

505-225-7487



Task 2: Review and revise curriculum.

Complete by September 2022. **Status: completed.**

RiverXchange staff are proud of this program’s continued ability to meet the unique needs of 5th grade teachers in our region. Many elementary teachers suggest that they are the least comfortable teaching science subjects and others reflect that the district purchased science curriculum doesn’t provide the same quality of experiences as RiverXchange. One of our most long-standing RiverXchange teachers shared with us that their school consistently scored higher than average on science testing scores and accounts that to their participation in RiverXchange.

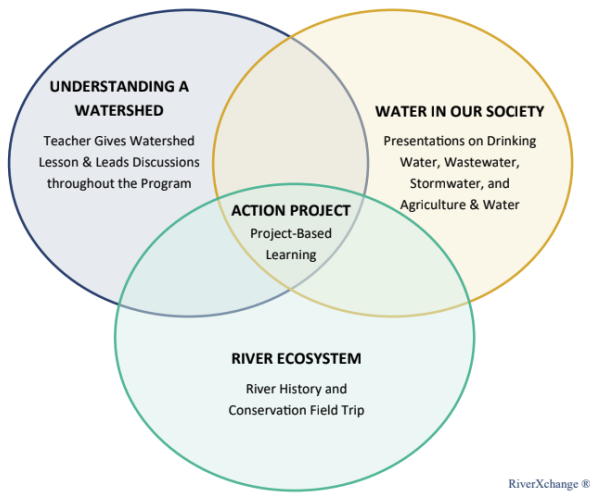
This year the RiverXchange [website](#) was significantly updated in effort to improve participating teachers familiarity with, understanding of, and successful use of the RiverXchange curriculum, which is unlike many standard curricula as it blends outside presenters and field experiences with project-based learning. The RiverXchange website now reflects how the curriculum is broken down into 3 areas of study (and the comparative activities and associated leaders of those activities): Understanding a Watershed (Teacher-led, ensures the foundation of understanding a watershed with a Shower Curtain Watershed lesson or similar activity), Water in Our Society (Presentations with various agencies and presenters) and The River Ecosystem (Pre-lesson and field trip hosted by City of Albuquerque Open Space). These study areas have been defined in RiverXchange for many years through the Big Water Questions, which are suggested reflection prompts for students throughout the program. Using these three areas of study proved to be helpful in introducing RiverXchange to new teachers and refreshing experienced ones.



www.ciudadswcd.org

505-225-7487





Most importantly, linking these 3 areas of study together is the Action Project. Using Project-based learning as a means to support student engagement in meaningful action in their watershed, the Action Project is a critical element of the RiverXchange curriculum. In its second year of delivery, previously called the capstone project, The Action Project aims to become a significant professional development opportunity for teachers as a means to deliver

high quality STEM and civic engagement through project-based learning in their classroom. Students will benefit from the Action Project by acquiring a multitude of skills that are required to take meaningful action for watershed health. From interviewing stakeholders, collecting data, researching history, policy and practices around an issue, to reporting on and advocating for change through action, the Action Project will build on the core content of RiverXchange and help students understand what it takes to inspire, demand or be a leader for effective change.

Task 3: Set teacher workshop dates and locations, review training agenda, order curriculum materials, and conduct workshops.

Complete by October 2022. **Status: completed.**

Two teacher workshops were held this year on September 23 and September 30 at the Open Space Visitor Center, with a total of 31 teachers in attendance. Teachers from Chaparral, San Antonito and Puesta del Sol were unable to attend due to late registration to the program,



www.ciudadswcd.org
505-225-7487



however staff met with these teachers outside of the workshop to train them on the program and schedule their presentations.

This year's workshops featured BEMP educators Laura Pages and Annie Montes, who facilitated an activity called “Dabbling in Data.” In this activity, groundwater table data is recorded on graphs for multiple years to see seasonal trends and observe periods of drought or heavier than normal snowmelt or precipitation as a means to discuss the relationship between weather patterns, groundwater and ecosystem health. Highlighting BEMP as a collaborative partner with Ciudad SWCD and RiverXchange was helpful for teachers to see how our program fits into the larger landscape of watershed education in our community and how students will eventually build on RiverXchange in future outdoor and environmental education experiences.

The workshop also focused on the framework for The Action Project with teachers, with discussion in small groups on how to implement the project in the classroom. Reflections from that discussion was shared in the larger group, and while feedback was positive and enthusiastic, it demonstrated the need for even more clear and direct guidance on the framework, which was helpful for staff to understand so we can find a way to meet that need.

Task 4: Review Action Project format and reporting system.

Goal: Complete by September 2022. **Status: in process**

Mid-year: In October, Erin Blaz attended the North American Association of Environmental Education’s national conference in Tucson, AZ. At this conference, Ms. Blaz was introduced to Earth Force and their “Environmental Action Civics” process. This process is a fully developed framework for completing an action project and aligns with the RiverXchange Action Project Framework that was in development on our end. Earth Force freely shares its process for educational purposes and the integration of this process into RiverXchange has been discussed



www.ciudadswcd.org
505-225-7487



with their team. While our original framework for the Action Project included 5 steps and guiding questions, the Earth Force process has 6 steps with adjoining lesson plans, videos, activity templates, and helpful tips for each step. An overview of the Earth Force Resources can be found [here](#).

The project reporting system is in development. We are using a free online learning management system called Canvas to post the Earth Force Learning Process, much like an online class for teachers to follow and implement the process. Canvas allows teachers to upload content such as media files, which we are hoping to obtain for the Children’s Radio Hour show which will feature RiverXchange classes for their Earth Day segment.

Task 5: Review, update and distribute pre-survey to all classes before presentations begin and track completion.

Begin August 2022. On-going through Dec 2023. **Status: completed.**

This year’s survey was updated slightly with a change to the possible answers being narrowed to mostly True, False or I haven’t learned this yet. Rather than allowing students to only show a scaled response that either shows correct or incorrect knowledge, we are attempting to offer “I haven’t learned this yet” as a strategy to show authentic learning in post-survey.

The Pre-Survey can be viewed from : www.riverxchange.com/Survey

Task 6: Monitor, coordinate and provide support to teachers for Action Projects.

Begin December 2022. On-going through May 2023. **Status: approaching.**

Mid year: Staff is making every effort to ensure teachers have easy access to the Earth Force materials as guidance for the Action Project. On November 30, staff hosted an Action Project



www.ciudadswcd.org
505-225-7487



Discussion on Zoom to review the Earth Force process, orient teachers to the Canvas classroom and show how to upload recordings of students reporting on their projects. Sixteen teachers attended this discussion and 19 teachers have joined the Canvas classroom.

Task 7: Coordinate field trips.

Begin September 2022. On-going through May 2023. **Status: in process.**

Field trip coordination is in progress with our main point person, Ellie Althoff, from CABQ-OSD. Ellie will continue to offer a field trip pre-lesson this year, focused on the River of Change from the Bosque Education Guide. Ellie is coordinating the field trips so that she will offer the pre-lesson the same week as the pole planting field trip. This is an exciting addition to the program as students will be taking immediate action by pole planting native trees after they learn about the impacts of flood control measures on the Bosque and riparian ecosystem of the Rio Grande. Field trips will begin in December and run through March on Thursdays and Fridays.

Mid-year: Two field trips took place in December in the Bosque off of Paseo del Norte and Rio Grande. 68 students attended and 43 cottonwoods were planted. This site has been confirmed for January plantings, but Open Space is still evaluating the best location for Feb and March plantings. This is unique as most years OSD confirms all pole planting locations at once. Bus costs have increased significantly and staff is working on finding the best vendors to service the field trips.

Task 8: Coordinate classroom guest speakers.

Begin September 2022. On-going through May 2023. **Status: in process.**



www.ciudadswcd.org

505-225-7487



With the program moving to in-person presentations this year, coordinating and getting presenters back on board took a little extra effort as some had not presented for the last two years as they offered a video recording of the presentation instead (i.e. Rio Rancho Utilities, Sandia Labs). Additionally, both APS and RRPS required different levels of background checks. Ample notice was given to those presenters in order to complete those requirements.

APS

Drinking Water and Wastewater Presenters - Ellie Garcia & Rhea Trotman from ABCWUA

Stormwater - Sandia Labs, Leads- John Kay and Nora Wintermute and other various presenters.

Agriculture- Still TBD, BernCo Coop Ext can not serve the 32 classes. We are working to find a solution, as this continues to be a challenging presentation to fill in Albuquerque.

Field Trips and Pre-Lesson, Ellie Althoff and Kyle Bality of CABQ-OSD

RRPS

Drinking Water and Wastewater Presenters - Ellie Garcia. ABCWUA educators generously offered to cover RRPS this year, as the CoRR Utility dept was not yet ready due to new staff and capacity issues.

Stormwater - John Stomp and Andy Edmondson at SSCAFCA

Agriculture- Steve Lucero and Rachel Zweig, Sandoval County Coop Ext.

Field Trips and Pre-Lesson, Ellie Althoff and Kyle Bality of CABQ-OSD

Mid-year: All presentations, except Agriculture for APS have been scheduled and confirmed with presenters and classrooms. RiverXchange staff are exploring options to present the



www.ciudadswcd.org

505-225-7487



Agriculture themselves, as it may be more efficient time and budget wise than seeking new partnerships with little time left to schedule.

Task 9: Review and track Action Project progress

Begin December 2022. On-going through May 2023. **Status: in process.**

Tracking and reporting will begin in December.

Mid-year: Staff have shared with teachers the importance of documenting the action projects along the process and have designated a place to upload recordings, documents or pictures to the Canvas classroom. The Canvas platform became accessible to teachers at the end of November and with December being a busy month, we expect to see more to report on in the 3rd quarter.

Task 10: Distribute post-survey to classes after they complete presentations and field trip, complete metrics evaluation and review.

Begin February 2023. On-going through April 2023. **Status: approaching.**

Post- surveys will be distributed as soon as classes finish their presentations and field trip.

Task 11: Review Action Projects for RiverXchange Excellence and award winners.

April 2023. **Status: approaching.**

This year, in collaboration with the Children’s Radio Hour, we are hoping to feature students discussing their Action Projects on the Earth Day show in April.



www.ciudadswcd.org

505-225-7487



Mid-year: Staff are working on guidance and criteria for awards to be released in January.

Task 12: Collect and analyze teacher feedback.

Complete by May 2023. Status: **approaching**

Staff will revise the teacher feedback form and offer it to teachers by the end of April.

Task 13: Create, print and mail thank you cards to in-kind partners and certificates of recognition to teachers.

Complete during June 2023. Status: **approaching**

We will maintain correspondence with our in-kind partners throughout the school year and send thank you notes as needed.

Task 14: Reporting to sponsors.

Midyear report by January 31, 2023. Final report by June 1, 2023.



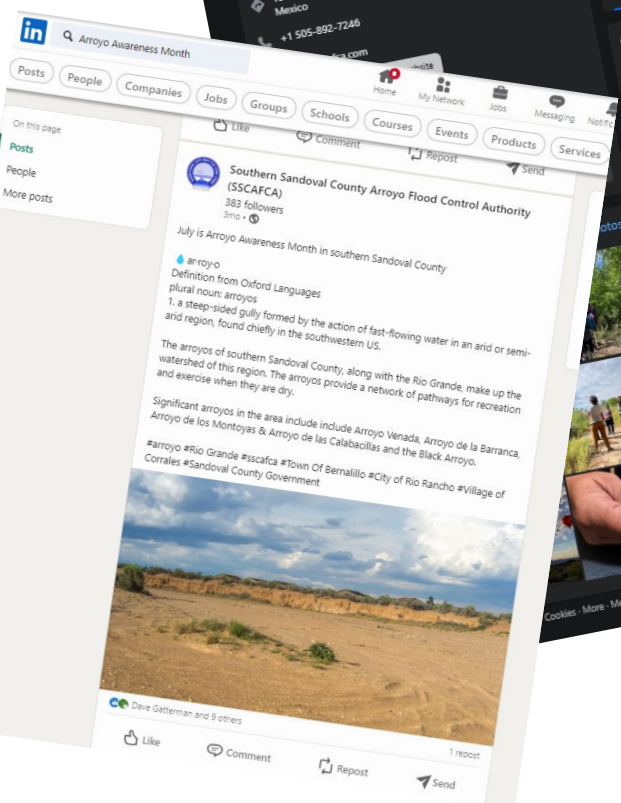
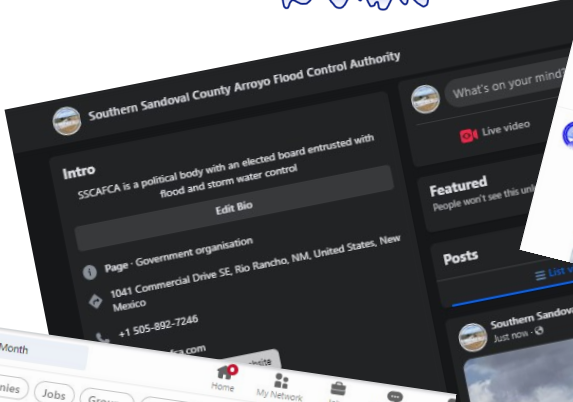
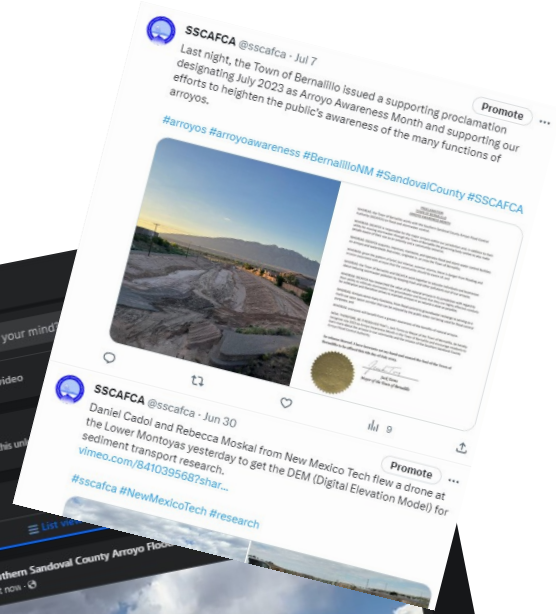
www.ciudadswcd.org

505-225-7487



insert RiverXchange EOY Report (34 pages)

Share the Message



SSCAFCFA shares social media messages from the Mid Rio Grande Stormwater Quality Team on our own Social Media pages. We also post and place our own Stormwater Quality Messaging on our social media pages.





Arroyo Awareness Month July, 2023

Heightening the public's awareness
of the many functions of arroyos.



**PROCLAMATION
TOWN OF BERNALILLO
ARROYO AWARENESS MONTH**

WHEREAS: the Town of Bernalillo works with the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA) on flood and stormwater control;

WHEREAS: SSCAFCA is responsible for the major arroyos within our jurisdiction and, in addition to their ability for moving stormwater through the Town of Bernalillo the governing body wishes to also make people aware of their use as an amenity and a community resource;

WHEREAS: SSCAFCA acquires, improves, maintains, and operates flood and storm water control facilities on arroyos and watersheds that enter, originate in, or cross the Town of Bernalillo;

WHEREAS: given the pattern of brief, but intense, summer storms, there is danger from flooding and erosion associated with arroyos that the community should be aware of; and

WHEREAS: the Town of Bernalillo and SSCAFCA work together to educate individuals and businesses about reducing stormwater pollution by keeping trash and other pollutants out of our arroyos;

WHEREAS: SSCAFCA has researched the value of the natural arroyos in its jurisdiction with regard to their ability to infiltrate stormwater into groundwater and found that they are highly effective conduits for infiltration and therefore strives to maintain arroyos in as natural a state as possible;

WHEREAS: Arroyos serve many functions, from flood control to groundwater recharge to serving as a multi-use open space corridor that can be enjoyed by the public when not being used for flood control purposes; and

WHEREAS: everyone will benefit from a greater awareness of the benefits of natural arroyos.

NOW, THEREFORE, BE IT RESOLVED THAT I, Jack Torres as Mayor of the Town of Bernalillo, do hereby recognize July 2023 as Arroyo Awareness Month in the Town of Bernalillo and encourage residents to learn more about the arroyos in our community and the mission of the Southern Sandoval County Arroyo Flood Control Authority.

In witness thereof, I have hereunto set my hand and caused the Seal of the Town of Bernalillo to be affixed this 6th day of July 2023.

Jack Torres
Jack Torres
Mayor of the Town of Bernalillo

**Southern Sandoval County
Arroyo Flood Control Authority**
1041 Commercial Drive SE - Rio Rancho, NM 87124
Ph (505) 892-9246 • Fax (505) 892-7241

BOARD OF DIRECTORS
Bernada Alvarado
John Chaney
Mark Grubbs
Cassandra D'Antonio
James P. Fahey Jr.
EXECUTIVE ENGINEER
David Gutierrez, P.E.

DECLARATION OF ARROYO AWARENESS MONTH, JULY 2023

WHEREAS, authority is granted to the SSCAFCA Board of Directors to make and pass resolutions and orders on behalf of the Authority not repugnant to the provisions of the Southern Sandoval County Flood Control Act (72-19-1 to 72-19-103, NMSA 1978);

WHEREAS, the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA) is an independent corporate political body with an elected board entrusted with flood and storm water control;

WHEREAS, SSCAFCA is responsible for the major arroyos within our jurisdiction and in addition to their use for moving stormwater through the drainage system wishes to also make people aware of their use as an amenity and a community resource;

WHEREAS, SSCAFCA acquires, improves, maintains, and operates flood and storm water control facilities on arroyos and watersheds that enter, originate in, or across our area of authority;

WHEREAS, SSCAFCA works together with the communities within its jurisdiction to educate individuals and businesses about reducing stormwater pollution by keeping trash and other pollutants out of our arroyos;

WHEREAS, given the pattern of brief, but intense, summer storms, there is danger from flooding and erosion associated with arroyos that the community should be aware of;

WHEREAS, SSCAFCA has researched the value of the natural arroyos in its jurisdiction with regard to their ability to infiltrate stormwater into groundwater and found that they are highly effective conduits for infiltration;

WHEREAS, SSCAFCA wishes to maintain arroyos in their natural state, whenever possible, with little or no structural improvement, allowing infiltration; and

WHEREAS, everyone will benefit from a greater awareness of the benefits of natural arroyos.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE SOUTHERN SANDOVAL COUNTY ARROYO FLOOD CONTROL AUTHORITY THAT

**VILLAGE OF CORRALES
PROCLAMATION NO. 23-06
DESIGNATING JULY 2023 AS ARROYO AWARENESS MONTH
IN THE VILLAGE OF CORRALES**

WHEREAS, The Village of Corrales works with the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA) on flood and stormwater control; and

WHEREAS, SSCAFCA is responsible for the major arroyos within our jurisdiction and, in addition to their utility for moving stormwater through the Village of Corrales, the Governing Body wishes to also make people aware of their use as an amenity and a community resource; and

WHEREAS, SSCAFCA acquires, improves, maintains, and operates flood and storm water control facilities on arroyos and watersheds that enter, originate in, or cross the Village of Corrales; and

WHEREAS, Given the pattern of brief, but intense, summer storms, there is danger from flooding and erosion associated with arroyos that the community should be aware of; and

WHEREAS, The Village of Corrales and SSCAFCA work together to educate individuals and businesses about reducing stormwater pollution by keeping trash and other pollutants out of our arroyos; and

WHEREAS, SSCAFCA has researched the value of the natural arroyos in its jurisdiction with regard to their ability to infiltrate stormwater into groundwater and found that they are highly effective conduits for infiltration and therefore strives to maintain arroyos in as natural a state as possible; and

WHEREAS, Arroyos serve many functions, from flood control to groundwater recharge to serving as a multi-use open space corridor that can be enjoyed by the public when not being used for flood control purposes; and

WHEREAS, Everyone will benefit from a greater awareness of the benefits of natural arroyos.

NOW, THEREFORE, I, James F. Fahey, Jr, Mayor of the Village of Corrales, do hereby recognize July 2023 as Arroyo Awareness month in the Village of Corrales and encourage residents to learn more about the arroyos in our community and the mission of the Southern Sandoval County Arroyo Flood Control Authority.



EDUCATION & ENGAGEMENT



Tour of the HJC for members of the Meadowlark Senior Center



Talking to the Sandoval County Master Gardners



Meeting with the Mariposa homeowners Association

EDUCATION OUTREACH & ENGAGEMENT



Stormwater Presentation

Multiple presentations at Rio Rancho Public Schools



Yard Signs available upon request

Clean, repair and deliver the Stormwater Kiosk to various locations

HARVEY JONES CHANNEL OUTFALL

A low-impact development project which leveraged treated wastewater effluent and stormwater to establish a wetland on the banks of the Rio Grande

WETLANDS ARE AMONG THE MOST EFFECTIVE IN TERMS OF POLLUTANT REMOVAL AND ALSO OFFER AESTHETIC AND HABITAT VALUE.



Arroyo Classroom

Mid-year report 2022-2023

October-December

Submitted by: Education Manager
Erin Blaz

The Arroyo Classroom Team: Erin Blaz, Theresa Aragon, Astrid Mooney

Participating Schools:

	SCHOOL	Number of classes	Number of Students
Title I*	Enchanted Hills Elem.	6	126
	Martin Luther King Elem.*	5	100
	Sandia Vista Elem.	6	141
	Maggie Cordova Elem.*	6	119
	Cielo Azul Elem.*	5	108
	Puesta del Sol Elem.*	5	103
	Colinas del Norte*	5	107
	TOTALS	38	804

Task 1: Recruit and select classes.

Complete by September 2022. **Status: completed.**

Recruitment was exciting this year as all the schools we reached out responded with interest in the program, including Cielo Azul who did not participate in 2021-2022. Arroyo Classroom participants generally include the whole 3rd grade cohort, so offering the program to a school means that serving the whole grade level doesn't always line up exactly with the number of classes we target in our agreement with MRGSQT & SSCAFCA. This year, as class sizes and teachers shuffled around much like RiverXchange, we ended up with 38 classes and 804 students. Since this is 3 more classes than the 35 in our agreement with the funders and we compensate presenters for all 4 presentations in this program, Ciudad SWCD is working to figure out a solution to the budget increase for presentations that will need to be covered. Ciudad SWCD will propose solutions to the funders before any budget adjustments are made.

Task 2: Review and revise evaluation and curriculum.

Complete by September 2022. **Status: completed.**

The pre and post survey was revised, with a few slight changes to reflect our guest speakers program this year. The answer option "I haven't learned this yet" was also added to the Arroyo Classroom survey, as it was the RiverXchange survey.

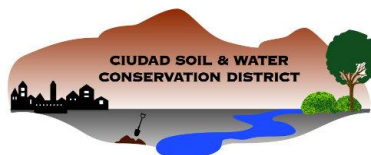
Task 3: Coordinate classroom guest speakers.

Begin September 2022. On-going through May 2023. **Status: in process.**

All presentations are resuming in person programming this year. All presentations have been fully scheduled.

This year Hawks Aloft will be the only outside contractor for the program. Hawks Aloft is a great partner for this presentation as they have a team of educators and a variety of birds for the presentation. Unfortunately, they have informed us that in future years they will not be able to perform this service at the current compensation rate.

Justin Stevenson of RD Wildlife and our Bat presenter has confirmed he is unavailable this year, but hopes to resume involvement in the program in the future. Theresa Aragon, a biologist and educator, now formally employed with Ciudad SWCD, offered a Reptile/Arthropod presentation for Arroyo Classroom last year with Nature Matters and so she will be offering a similar presentation this year.



The Watershed presentation and Arroyo Walk/Field trip will be offered by Erin Blaz. Arroyo Walks have been scheduled in the fall this year to ensure they are completed (in case any pandemic related issues change school policies) and to explore if holding the walk first has any benefits on the following presentations.

Mid-year: All presentations have been scheduled. We met some challenges this year with scheduling the Bird presentations with Hawks Aloft. Once everything was scheduled and Hawks Aloft reviewed the schedule, they notified us that most of the presentation times would need to be moved to reduce the gaps between presentations as this was not ideal for the well-being of the birds, or the time required by staff. Theresa had to go back to these schools and move the times around, which proved to be difficult for some schools as their schedules are very limited in openings. Once everything was rescheduled, Hawks Aloft approved the final updated schedule. All other presentations are conducted by Ciudad education staff, so we are able to provide more flexibility with teachers' school schedules and gaps between presentation times.

During the second quarter, all 38 classes received their first presentation - which was either the Arroyo Walk or Watershed presentation (if weather was not good). 24 classes received the Bird presentation and 20 class received the Reptile presentation.

Task 4: Collect and analyze teacher feedback.

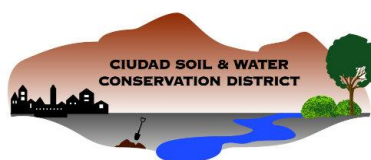
Complete by May 2022. **Status:** **approaching.**

Staff will revise teacher feedback form and submit to teachers at the end of the program.

Task 5: Reporting to sponsors.

Midyear report by January 31, 2022.

Final report by June 1, 2022.



insert Arroyo Classroom Final Report (21 pages)



See the Water Authority television advertising at <https://youtu.be/AJojsyJfnK4>.



Town of Bernalillo

"The City of Coronado"

From May 2023 to current, the Town of Bernalillo has hosted the educational stormwater kiosk with approximately .5 visitors per day.

In addition, we have distributed stormwater brochures from our of the Planning Department Office and Town Hall reception desk. Approximately 30.

We have also produced newsletter articles in support of stormwater to include the promotion of the kiosk and fats, oils and greases.



THE UNIVERSITY OF
NEW MEXICO.



BOSQUE
SCHOOL
Challenging Education



ADD
2021 BEMP Education Report.pdf
HERE

(18 pages)



Albuquerque Metropolitan Arroyo Flood Control Authority

On April 28th, 2023 AMAFCA presented to a studio class at UNM's school of architecture.

BEAR ARROYO

LANDSCAPE DESIGN GUIDELINES

LA503/403 Urban Typologies Studio

Final Presentation

Monday, May 8th

1:30-3:30 PM

UNM SA+P Room P135

Please join us for a gallery-style review exploring Albuquerque's Bear Arroyo and student ideas to improve recreation access and water quality, while improving habitat and environmental education.





April 6, 2023

Dear AMAFCA,

On behalf of the Land and Water Summit Planning Committee, Ciudad Soil & Water Conservation District would like to take this opportunity to thank you for the generous sponsorship in the amount of \$3,500 that was provided for the 2023 Land and Water Summit Hybrid Conference. As the fiscal manager for the Land and Water Summit, Ciudad SWCD is pleased to report that the AMAFCA charitable **Reservoir Level** sponsor contribution assisted with the planning efforts and implementation of the conference.

Through AMAFCA's sponsorship, the Land and Water Summit hosted a pre-conference field trip with 55 attendees and a conference with 249 registered attendees, 131 in-person and 118 remote viewers, and 20 sponsors receiving 30,481 impressions.

The 2023 Land and Water Summit featured a diverse range of presentations on topics related to building resilient landscapes and societies in the face of environmental challenges. A common theme that emerged was the importance of collaboration with communities in developing strategies for resilience. Presentations on shortage-sharing and water agreements highlighted the need for cooperation and sharing in managing scarce resources. Indigenous resiliency was also a prominent topic, emphasizing the importance of traditional knowledge and analysis in land and water management.

The Land and Water Summit annual conference plays a vital role in continuing education about resource conservation and best practices for safeguarding and enhancing local landscapes. The event could not be possible without AMAFCA's financial contribution. The Land and Water Summit Planning Committee and Ciudad SWCD are immensely grateful for your generous support and sponsorship of the conference.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Steven Glass".

J. Steven Glass
Land and Water Summit Planning Committee, Co-Chair
Ciudad Soil & Water Conservation District, Board Chair

Middle Rio Grande Stormwater MS4 Technical Advisory Group

MEMORANDUM OF AGREEMENT

A COOPERATIVE AGREEMENT, CREATING THE MIDDLE RIO GRANDE MS4 TECHNICAL ADVISORY GROUP, IN SUPPORT OF COMPLIANCE EFFORTS FOR A STORMWATER DISCHARGE PERMITTING SYSTEM FOR THE MIDDLE RIO GRANDE VALLEY IN ACCORDANCE WITH THE FEDERAL CLEAN WATER ACT.

WHEREAS, the United States Environmental Protection Agency (EPA), Region 6 regulates the discharge of stormwater from municipal separate storm sewer systems (MS4s) in New Mexico through the issuance of an MS4 permit for the Middle Rio Grande valley urbanized area under the authority of the National Pollutant Discharge Elimination System (NPDES) regulations (40CFR122); and

WHEREAS, the Middle Rio Grande area is comprised of many diverse local, state, federal and tribal entities, each with separate and distinct authority and responsibilities; and

WHEREAS, the Middle Rio Grande area entities potentially eligible for authorization under the proposed NPDES General Permit No. NMR04A000 (hereinafter "MS4 Permit"), and therefore are eligible to enter into this Memorandum of Agreement (hereinafter "Agreement") in furtherance of the requirements of the MS4 Permit, are the City of Albuquerque, Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA), University of New Mexico, New Mexico Department of Transportation District 3, Bernalillo County, Sandoval County, Village of Corrales, City of Rio Rancho, Los Ranchos de Albuquerque, Kirtland Air Force Base, Town of Bernalillo, State Fairgrounds/Expo New Mexico, the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA), the Eastern Sandoval County Arroyo Flood Control Authority (ESCAFCA), Sandia National Laboratories/Department of Energy, Pueblo of Sandia, Pueblo of Isleta, and Pueblo of Santa Ana (collectively "Stormwater Management Entities"); and

WHEREAS, the proposed MS4 Permit encourages cooperative efforts among separate local, state, federal and Tribal governments to reduce the amount of pollutants discharged with stormwater from the Middle Rio Grande urbanized area MS4s; and

WHEREAS, continued cooperation among the Stormwater Management Entities in the MS4 Permit offers an enhanced opportunity for each entity to remain aware of the requirements in the MS4 Permit and facilitate compliance with conditions of the permit;

NOW, THEREFORE, BE IT AGREED THAT:

1. The signatories to this Agreement (hereinafter collectively referred to as "Parties" and individually referred to as "Party") support and encourage a cooperative commitment to assist one another with technical issues regarding compliance with the MS4 Permit and agree to form the Middle Rio Grande MS4 Technical Advisory Group (MS4TAG).

2. The purpose of the MS4TAG will be to exchange technical information regarding compliance with the MS4 Permit, exchange ideas among Parties regarding compliance efforts, and exchange information regarding illicit discharges detected within each Party's jurisdiction. The MS4TAG shall have no binding financial authority and shall be strictly advisory in nature.

3. Nothing in this Agreement shall be construed as obligating a Party to this agreement to expend funds for any purpose, and no Party shall be required to contribute any funds in order to participate in this Agreement. In the event the Parties determine that any joint expenditure of funds among multiple Parties becomes necessary in order to comply with the requirements of the MS4 Permit, a separate agreement shall be entered into between the affected Parties regarding any and all such expenditures at that time.

4. The term of this Agreement shall run from the date the MS4 Permit is issued by the EPA until the date the MS4 Permit is terminated or expires, whichever occurs first. This Agreement may be terminated in its entirety at any time upon the mutual agreement of all of the then-existing Parties to this Agreement. In the event any Party wishes to withdraw from this Agreement without terminating the other Parties' interests in this Agreement, withdrawal shall become effective upon ninety (90) days prior written notice to the other Parties. Withdrawal shall fully and completely terminate that Party's interest in and obligations under this Agreement. Following any Party's withdrawal, this Agreement shall continue in full force and effect as to all remaining Parties to the extent possible.

5. This Agreement does not address the "Public Education and Outreach" or "Cooperative Sampling" sections of the MS4 Permit. Any MS4TAG efforts regarding either of these sections of the MS4 Permit under this Agreement shall be strictly in furtherance of the spirit of cooperation intended among the Parties. Each Party acknowledges its obligations under the "Public Education and Outreach" and "Cooperative Sampling" sections of the MS4 Permit are separate and apart from its activities under this Agreement, and a separate agreement will be required for any collaboration among the Parties with respect to those permit requirements.

6. The Parties will appoint two (2) Co-Coordinators from among the Parties, one of which must be from a Party located within the Bernalillo County geographical area and one of which must be from a Party located within the Sandoval County geographical area. Appointment of a Co-Coordinator shall be by majority vote of the voting Parties, with only those Parties located in the county of Bernalillo voting on the Co-Coordinator from that area, and only those Parties located in the county of Sandoval voting on the Co-Coordinator from that area. Co-Coordinators must be appointed annually in each subsequent permit year, or earlier if the position becomes vacant for any reason. For the New Mexico Department of Transportation District 3, which operates stormwater management facilities in both counties, for the purposes of this section, they shall select one county affiliation in year one of the agreement and alternate affiliations in subsequent years of this Agreement. The Co-Coordinators will be expected to coordinate the Parties' efforts under this Agreement, including facilitating meetings of the MS4TAG at least monthly for the first year of the MS4 Permit. In years two through five of the permit, the frequency of meetings may be reduced to quarterly with additional meetings called as necessary to discuss issues regarding MS4 Permit compliance.

7. Each Party shall be entitled to one (1) vote on any action items.
8. This Agreement creates no obligations on behalf of any Party to any other Party to this Agreement, including for any requirements imposed or determinations made by EPA. The Parties acknowledge and agree that each shall at all times remain individually liable for full compliance with the requirements of the MS4 Permit, including EPA's determination regarding the implementation schedule.
9. This Agreement may be modified in writing at any time upon the mutual agreement of the Parties.
10. Parties can be added at any time during the life of this Agreement. A potential future Party's submittal of a signature page to the Co-Coordinator and approval by the Co-Coordinator shall add the Party to the Agreement.

MIDDLE RIO GRANDE STORMWATER
MS4 TECHNICAL ADVISORY GROUP
FINAL

10-07-13

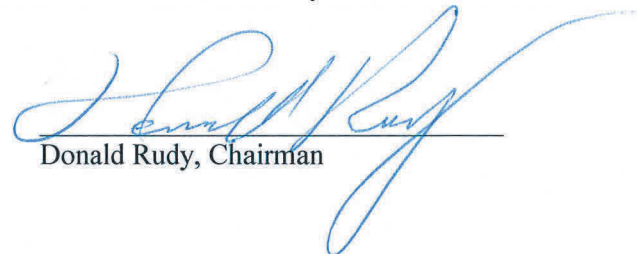
Approved as to Form:


Bernard P. Metzgar
SSCAFCA Attorney

Date: 10/04/13

Southern Sandoval County Arroyo
Flood Control Authority

Date: 10/18/13

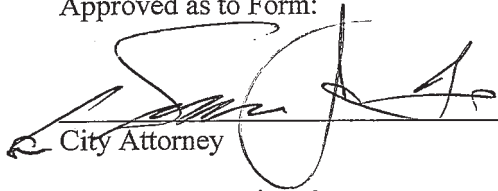

Donald Rudy, Chairman

MIDDLE RIO GRANDE STORMWATER
MS4 TECHNICAL ADVISORY GROUP
FINAL DRAFT

9-30-13

City of Rio Rancho

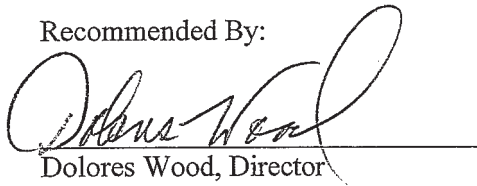
Approved as to Form:



City Attorney

Date: 10/4/13

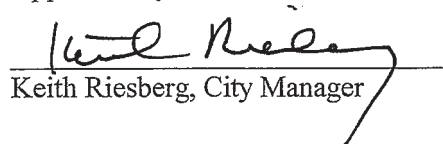
Recommended By:



Dolores Wood, Director

Date: 11.4.13

Approved By:



Keith Riesberg, City Manager

Date: 11/1/13

MIDDLE RIO GRANDE STORMWATER
MS4 TECHNICAL ADVISORY GROUP
FINAL DRAFT

9-30-13

Approved as to Form:


George Perez
Town of Bernalillo Attorney

Date: 10/15/2013


Mayor Jack Torres, Town of Bernalillo

Date: 10/14/13

Attest: 
Ida Fierro, Town Clerk

Date: 10/14/13

VILLAGE OF CORRALES

By:  10.08.13
Philip Gasteyer, Mayor Date

Attest:

 10-08-2013
Juan Reyes, Village Clerk Date

IN WITNESS WHEREOF, the undersigned have caused this Agreement to be executed.

**Albuquerque Metropolitan Arroyo
Flood Control Authority**

Date: 10/24/2013



Tim Eichenberg
Chair of the Board of Directors

Attest:



Bruce Thomson
Secretary/Treasurer

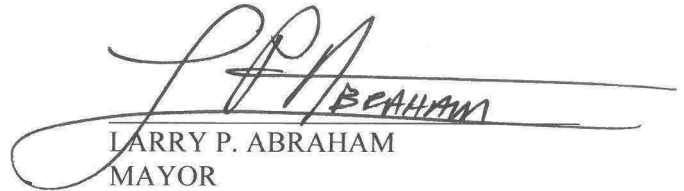
Date: 10/24/13

MIDDLE RIO GRANDE STORMWATER
MS4 TECHNICAL ADVISORY GROUP
FINAL


10-07-13

VILLAGE OF LOS RANCHOS DE ALBUQUERQUE

Date: November 14, 2013


LARRY P. ABRAHAM
MAYOR

(SEAL)


STEHANIE DOMINGUEZ
VILLAGE CLERK

MIDDLE RIO GRANDE STORMWATER
MS4 TECHNICAL ADVISORY GROUP
FINAL

10-07-13

Accepted on behalf of:

U.S. DEPARTMENT OF ENERGY
NATIONAL NUCLEAR SECURITY ADMINISTRATION
SANDIA FIELD OFFICE

By:


Geoffrey L. Beausoleil
Manager

Date

14 NOV 2013

MIDDLE RIO GRANDE STORMWATER
MS4 TECHNICAL ADVISORY GROUP
FINAL

Approved as to Form:

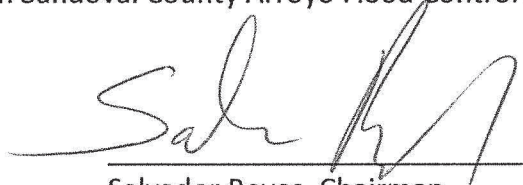


Bernard P. Metzgar
ESCAFCA Attorney

Date: 11/14/13

Eastern Sandoval County Arroyo Flood Control Authority

Date: NOV. 19, 2013



Salvador Reyes, Chairman

UNIVERSITY OF NEW MEXICO

Approved by:

 Date: 12/17/13
David Harris, Executive Vice President

Recommended by:

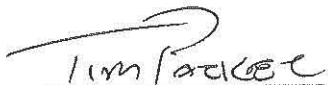
 Date: 12-10-13
Carla P. Domenici, Director
Safety and Risk Services Department

MIDDLE RIO GRANDE STORMWATER
MS4 TECHNICAL ADVISORY GROUP
FINAL

10-07-13

New Mexico Department of Transportation

Approved By:



Timothy L. Parker, M.S., P.E.
NMDOT District Three Engineer

Date: 12/22/13

Approved As To Form Only:



Ken Swain, Assistant General Counsel
Office of the General Counsel

Date: 12/18/2013

BERNALILLO COUNTY

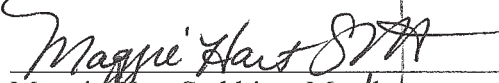
Motion to: Approve a Memorandum of Agreement (MOA) joining the County with other local entities participating in the Middle Rio Grande MS4 Technical Advisory Group (MS4TAG).

Approved this 28th day of January, 2014

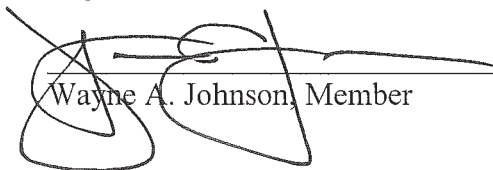
BOARD OF COUNTY COMMISSIONERS


Debbie O'Malley, Chair



Art De La Cruz, Vice Chair


Maggie Hart Stebbins, Member


Lonnie C. Talbert, Member


Wayne A. Johnson, Member

APPROVED AS TO FORM:


County Attorney

Date: 1/28/14

ATTEST:


Maggie Toulouse Oliver, County Clerk

Date: 1/28/14



MIDDLE RIO GRANDE STORMWATER
MS4 TECHNICAL ADVISORY GROUP
FINAL

10-07-13

Approved as to Form:



Patrick F. Trujillo
Sandoval County Attorney

Date: 1/27/2014

Sandoval County

Date: 2/6/2014

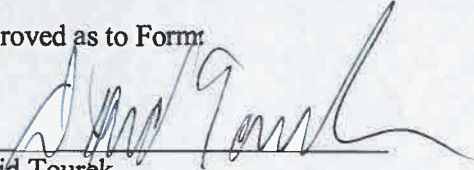


Phillip Rios, County Manager

MIDDLE RIO GRANDE STORMWATER
MS4 TECHNICAL ADVISORY GROUP
FINAL

10-07-13

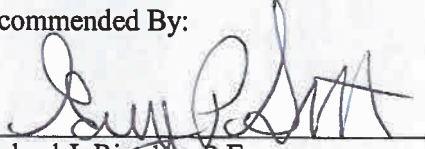
Approved as to Form:



David Tourek
City Attorney

Date: 2/24/14

Recommended By:



Michael J. Riordan, P.E.
Director, Department of Municipal Development

Date: 2/26/14

Approved By:



Robert J. Perry
Chief Administrative Officer

Date: 3/4/14

MIDDLE RIO GRANDE STORMWATER
MS4 TECHNICAL ADVISORY GROUP
FINAL

Memorandum of Agreement accepted on behalf of:

UNITED STATES AIR FORCE
KIRTLAND AIR FORCE BASE

By  _____
ERIC H. FROEHLICH, COLONEL,
USAF INSTALLATION COMMANDER

Date 28 Dec 15

Middle Rio Grande Stormwater MS4 Compliance Monitoring Cooperative

INTERGOVERNMENTAL AGREEMENT

AN INTERGOVERNMENTAL AGREEMENT, CREATING THE MIDDLE RIO GRANDE MS4 COMPLIANCE MONITORING COOPERATIVE, IN SUPPORT OF COMPLIANCE EFFORTS FOR A STORMWATER DISCHARGE PERMITTING SYSTEM FOR THE MIDDLE RIO GRANDE VALLEY IN ACCORDANCE WITH THE FEDERAL CLEAN WATER ACT.

RECITALS

WHEREAS, the United States Environmental Protection Agency (EPA), Region 6 regulates the discharge of stormwater from municipal separate storm sewer systems (MS4s) in central New Mexico through the issuance of an MS4 permit for the Middle Rio Grande valley urbanized area, under the authority of the National Pollutant Discharge Elimination System (NPDES) regulations (40CFR122); and

WHEREAS, the Middle Rio Grande valley urbanized area is comprised of many diverse local, state, federal and tribal entities, each with separate and distinct authority and responsibilities; and

WHEREAS, the Middle Rio Grande valley urbanized area entities that are eligible for authorization under NPDES General Permit No. NMR04A000 (hereinafter "MS4 Permit"), and therefore eligible to enter into this Intergovernmental Agreement (hereinafter "Agreement") in furtherance of the requirements of the MS4 Permit, are the City of Albuquerque, Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA), University of New Mexico, New Mexico Department of Transportation District 3, Bernalillo County, Sandoval County, Village of Corrales, City of Rio Rancho, Village of Los Ranchos de Albuquerque, Kirtland Air Force Base, Town of Bernalillo, State Fairgrounds/Expo New Mexico, Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA), Eastern Sandoval County Arroyo Flood Control Authority (ESCAFCA), Sandia National Laboratories/Department of Energy, Pueblo of Sandia, Pueblo of Isleta, and Pueblo of Santa Ana (collectively "Co-permittees"); and

WHEREAS, the proposed MS4 Permit requires each Co-permittee to obtain and report stormwater compliance monitoring results in their MS4 Annual Report; and

WHEREAS, the proposed MS4 Permit encourages cooperative efforts among the Co-permittees, including compliance monitoring activities, to reduce the amount of pollutants discharged with stormwater into the Rio Grande; and

WHEREAS, cooperation among the Co-permittees in the MS4 Permit through the Middle Rio Grande Compliance Monitoring Cooperative ("CMC"), with regard to monitoring requirements, offers the opportunity to reduce each individual Co-permittee's monitoring costs by cooperatively developing, funding, and executing a common monitoring plan without reducing the effectiveness of the monitoring plan.

MIDDLE RIO GRANDE STORMWATER
MS4 COMPLIANCE MONITORING COOPERATIVE
INTERGOVERNMENTAL AGREEMENT
FINAL

04-26-2016

a Members cash contribution, provided however, that participation in the CMC shall not be considered in-kind contributions. The value of in-kind contributions will be determined by the membership of the CMC by equating the value of the service to the cost that would be paid by the membership of the CMC to have the in-kind service performed by a third party (non-CMC member) contractor. The Contribution Schedule is located in Attachment 1 to this Agreement. This Contribution Schedule may be modified by the CMC annually without requiring modification to this agreement, provided however, that it shall be adopted by unanimous vote of the Members. Any funds remaining at the end of the Agreement Year will be carried into the next Calendar Year of this agreement. In such event, the CMC may either elect to retain the excess funds from the prior Calendar Year as a contingency fund, or may lower the annual contribution schedules for that year for all Members in equal proportion, based on the total amount carried forward. In the event a Member does not have the resources to provide full payment for any funds required by the Contribution Schedule, the remaining Members may agree, by unanimous vote, amend the Contribution Schedule if it is in the best interest of the CMC. Each Member's obligations under this Agreement are contingent upon sufficient appropriations being made therefor by such Member's governing body sufficient to fulfill such Member's said obligations. If such appropriations are insufficient to such Member's obligations hereunder, such Member's shall promptly notify the other Members, and this Agreement shall terminate forthwith with respect to such Member.

7. **FISCAL AGENT.** The Members shall select one (1) Co-permittee to act as Fiscal Agent for the CMC for the purposes of this Agreement. The Fiscal Agent shall act as the custodian of the CMC's funds, securities, and property. All funds will be held in a separate bank account for the purposes of this Agreement. All CMC funds shall be deposited promptly by the Fiscal Agent to the credit of the CMC. The CMC shall adhere to the Fiscal Agent's accounting and procurement procedures, provided such procedures comply with law. The Fiscal Agent shall make available to any interested Member, all records, receipts, and other documentation with respect to all matters concerning this agreement and shall have this account included in its annual audit. The Fiscal Agent shall maintain funds in accordance with all applicable state and Federal statutes. The Fiscal Agent shall be authorized on the CMC's behalf to sign checks, drafts, or other instruments for payment of money, acceptances, notes, or other evidences of indebtedness, to enter into contracts, or to execute and deliver other documents and instruments. This authority to enter into any contract or negotiated agreement shall be subject to approval by the CMC and subject to any limitations as set forth in this Agreement. Subject to the provisions of this Agreement, no loans shall be contracted on behalf of the CMC and no evidence of indebtedness shall be issued in its name unless authorized by a unanimous vote of the CMC Members. In consideration of the in-kind contributions anticipated from the Fiscal Agent, the total financial contribution requirements of the Fiscal Agent's Member agency, under any applicable agreement, shall be credited by the sum of one thousand dollars (\$1,000.00) for the term of the permit in which that Member serves as the Fiscal Agent.

8. **PAYMENTS.** The Fiscal Agent will invoice each Member for their respective participation, minus the values of any CMC approved in-kind contributions at the start of each member entity's Fiscal Year. Each Member will pay such invoices to the Fiscal Agent within

MIDDLE RIO GRANDE STORMWATER
MS4 COMPLIANCE MONITORING COOPERATIVE
INTERGOVERNMENTAL AGREEMENT
FINAL

04-26-2016

standing of the CMC, contracts may be used, with concurrence from all Members of the CMC, that have been issued by Members to perform elements of the monitoring program. If a contractor is used that has been procured by a Member in good standing of the CMC instead of the Fiscal Agent, then, with concurrence of the other Members of the CMC, an entity that is not the Fiscal Agent for the CMC may contract to have the services performed and upon successful completion of the services, submit an invoice, with no mark-up, to the Fiscal Agent for reimbursement. Reimbursement shall only be authorized for reasonable and necessary costs. All contractor's utilized for the purposes identified in this Agreement shall be procured in accordance with the State Procurement Code. Contractors will be agents of the Member issuing the contract. Other Members of the CMC shall not be bound by the terms of the contract.

13. **EVALUATION.** The Members agree that the Stormwater Monitoring contract is an ongoing program. The effectiveness of the Stormwater Monitoring contract, with regard to permit compliance, will be evaluated by the CMC prior to annual renewal(s) or request for proposals.

14. **LIMITATION ON SAMPLING ACTIVITIES.** The contractor's scope of services will be limited to the CMC-developed and EPA approved sampling plan and associated reporting. If, in the event of an exceedence during routine monitoring events, additional investigation is required by the EPA to identify the source of a potential contaminant, the CMC may expand monitoring activities to the degree necessary to locate the likely entry point of the potential contaminants. Once the likely entry point is identified, further investigation into the source of the potential contaminant will become the responsibility of the specific Co-permittee(s) having jurisdiction at the location where the likely entry occurred. The CMC shall have no responsibility, fiscal or otherwise, to investigate potential sources of contamination outside of the river or its affiliated Middle Rio Grande Conservancy District-owned water conveyances.

15. **PARTICIPATION AFFECTED.** If any situation arises which adversely affects any Member's participation in this Agreement, said Member will immediately, and in writing, notify the other Members. Any circumstance that materially affects this Agreement will be promptly and equitably resolved by all Members and if necessary, an amendment to this Agreement shall be executed.

16. **COMPLIANCE WITH GOVERNING LAWS.** The obligations of each Member under this Agreement shall be performed in compliance with all applicable laws, statues, and ordinances. Nothing herein is intended to constitute any agreement for the Members to perform any activity in violation of the Constitution or Laws of the State of New Mexico or the Ordinances of any Co-permittee that is a Member of this Agreement.

17. **SEVERABILITY.** If any clause or provision of this Agreement is illegal, invalid or unenforceable, under present or future laws effective during the term of this Agreement, then and in that event, it is the intention of the Members hereto that the remainder of this Agreement shall not be affected thereby.

MIDDLE RIO GRANDE STORMWATER
MS4 COMPLIANCE MONITORING COOPERATIVE
INTERGOVERNMENTAL AGREEMENT
FINAL

04-26-2016

EACH ENTITY WILL EXECUTE AGREEMENT INDIVIDUALLY. SIGNATURE PAGES
WILL BE CONSOLIDATED INTO SINGLE DOCUMENT

**Albuquerque Metropolitan Arroyo
Flood Control Authority**



Bruce M. Thomson, Chair
Board of Directors



Date

Attest:



Ronald D. Brown, Secretary-Treasurer
Board of Directors

Approved as to Form:



Randy Autio
AMAFCA Attorney

Date: 6/23/16

MIDDLE RIO GRANDE STORMWATER
MS4 COMPLIANCE MONITORING COOPERATIVE
INTERGOVERNMENTAL AGREEMENT
FINAL

5-24-2016

City of Rio Rancho




Keith Riesberg
City Manager

5/27/16

Date

Approved as to Form:



Jennifer Vega-Brown
City Attorney

Date: 5/27/16

Date for of beginning of Fiscal Year: July 1

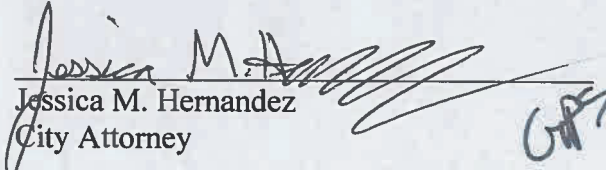
MIDDLE RIO GRANDE STORMWATER
MS4 COMPLIANCE MONITORING COOPERATIVE
INTERGOVERNMENTAL AGREEMENT
FINAL

04-26-2016

EACH ENTITY WILL EXECUTE AGREEMENT INDIVIDUALLY. SIGNATURE PAGES
WILL BE CONSOLIDATED INTO SINGLE DOCUMENT

City of Albuquerque

Approved as to Form



Jessica M. Hernandez
City Attorney

6/15/16

Date

Purchasing Approval



Ramona Martinez
Chief Procurement Officer

6/16/16

Date

Recommended By:



Melissa Lozoya
Director, Department of Municipal Development

6/16/16

Date

Approved By



Robert J. Perry
Chief Administrative Officer

6/17/16

Date

Date for of beginning of Fiscal Year: July 1

ATTACHMENT 1

CONTRIBUTION SCHEDULE

County of Bernalillo:

APPROVED BY:




Julie M. Baca Date
Bernalillo County Manager

RECOMMENDED BY:



Roger A. Paul, P.E. Date
Deputy County Manager for Public Works

APPROVED AS TO FORM ONLY:



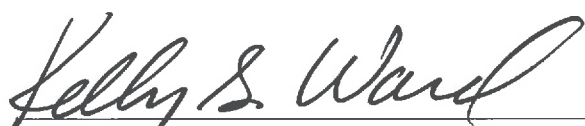
for Deputy County Attorney Date
6-24-2016

MIDDLE RIO GRANDE STORMWATER
MS4 COMPLIANCE MONITORING COOPERATIVE
INTERGOVERNMENTAL AGREEMENT
FINAL

04-26-2016

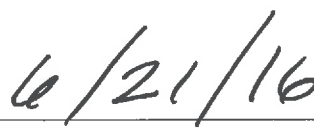
EACH ENTITY WILL EXECUTE AGREEMENT INDIVIDUALLY. SIGNATURE PAGES
WILL BE CONSOLIDATED INTO SINGLE DOCUMENT

Village of Los Ranchos de Albuquerque

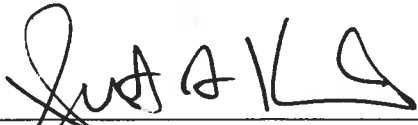


Kelly Ward
Administrator

Date



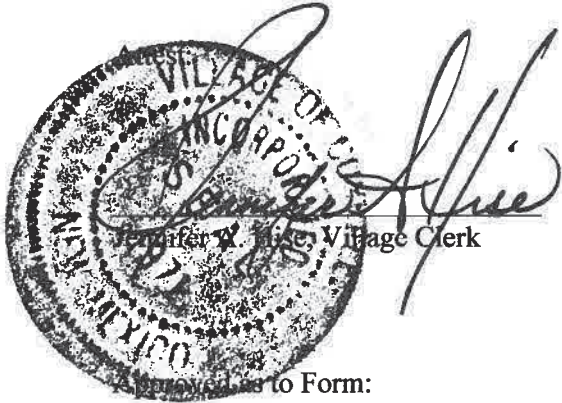
Village of Corrales



Scott A. Kominiak, Mayor

5/26/16

Date



Approved as to Form:



John L. Appel
Coppler Law Firm P.C.
Village of Corrales Attorney

5/26/16

Date


Date for beginning of Fiscal Year: July 1

MIDDLE RIO GRANDE STORMWATER
MS4 COMPLIANCE MONITORING COOPERATIVE
INTERGOVERNMENTAL AGREEMENT
FINAL

04-26-2016

EACH ENTITY WILL EXECUTE AGREEMENT INDIVIDUALLY. SIGNATURE PAGES
WILL BE CONSOLIDATED INTO SINGLE DOCUMENT

Town of Bernalillo



Jack Torres, Mayor
Board of Directors

5/23/2016

Date

Attest:



Ida Fierro, Town Clerk

Date for of beginning of Fiscal Year: July 1

MIDDLE RIO GRANDE STORMWATER
MS4 COMPLIANCE MONITORING COOPERATIVE
INTERGOVERNMENTAL AGREEMENT
FINAL

04-26-2016

EACH ENTITY WILL EXECUTE AGREEMENT INDIVIDUALLY. SIGNATURE PAGES
WILL BE CONSOLIDATED INTO SINGLE DOCUMENT

**Southern Sandoval County Arroyo
Flood Control Authority**



James Fahey, M.D., Chair
Board of Directors

5/20/16

Date

Approved as to Form:



Bernard Metzgar
SSCAFCA Attorney

Date: 5/20/16

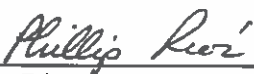
Date for of beginning of Fiscal Year: July 1

MIDDLE RIO GRANDE STORMWATER
MS4 COMPLIANCE MONITORING COOPERATIVE
INTERGOVERNMENTAL AGREEMENT
FINAL

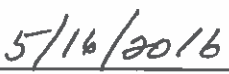
04-26-2016

EACH ENTITY WILL EXECUTE AGREEMENT INDIVIDUALLY. SIGNATURE PAGES
WILL BE CONSOLIDATED INTO SINGLE DOCUMENT

**Sandoval County, New Mexico
Flood Control Authority**



Phillip Rios
County Manager

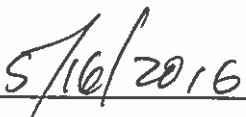


Date

Approved as to Form:



Patrick Trujillo
Sandoval County Attorney

Date: 

Date for of beginning of Fiscal Year: July 1

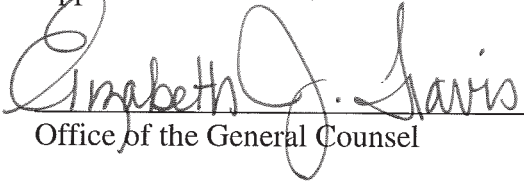
MIDDLE RIO GRANDE STORMWATER
MS4 COMPLIANCE MONITORING COOPERATIVE
INTERGOVERNMENTAL AGREEMENT
FINAL

04-26-2016

EACH ENTITY WILL EXECUTE AGREEMENT INDIVIDUALLY. SIGNATURE PAGES
WILL BE CONSOLIDATED INTO SINGLE DOCUMENT

**New Mexico Department of Transportation -
District 3**

Approved as to Form:


Office of the General Counsel

6.29.2016
Date

Approved By:


Kenneth Murphy, NMDOT District Three Engineer

7/2/16
Date

Date for of beginning of Fiscal Year: July 1

MIDDLE RIO GRANDE STORMWATER
MS4 COMPLIANCE MONITORING COOPERATIVE
INTERGOVERNMENTAL AGREEMENT
FINAL

04-26-2016

EACH ENTITY WILL EXECUTE AGREEMENT INDIVIDUALLY. SIGNATURE PAGES
WILL BE CONSOLIDATED INTO SINGLE DOCUMENT

University of New Mexico

for Elizabeth M. Harris
David W. Harris *Univ. Controller* 7-19-16
Executive Vice President for Administration, COO & CFO Date

Approved:

Carla P. Domenici 7-14-16
Carla P. Domenici Date
Director, Safety and Risk Services

Approved as to Form:

for
Elsa K. Cole, Esq. 7/15/2016
University Counsel Date

Date for of beginning of Fiscal Year: July 1

ATTACHMENT 1

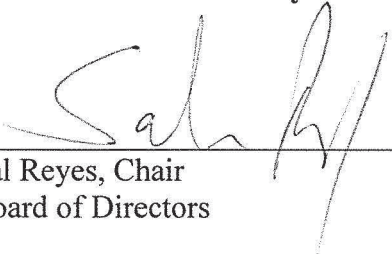
CONTRIBUTION SCHEDULE

MIDDLE RIO GRANDE STORMWATER
MS4 COMPLIANCE MONITORING COOPERATIVE
INTERGOVERNMENTAL AGREEMENT
FINAL

04-26-2016

EACH ENTITY WILL EXECUTE AGREEMENT INDIVIDUALLY. SIGNATURE PAGES
WILL BE CONSOLIDATED INTO SINGLE DOCUMENT

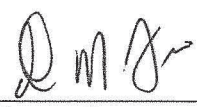
**Eastern Sandoval County Arroyo
Flood Control Authority**



Sal Reyes, Chair
Board of Directors


Date May 25, 2016

Attest:



Ida Fierro, Secretary
Board of Directors

Approved as to Form:



Bernie Metzgar
ESCAFCA Attorney

Date: _____

ATTACHMENT 1

Sampling Cooperative Cost Allocation Determination (CAD) Tool

28-Apr-16

Number	Participant				ENTITY PAYMENT	FISCAL AGENT CREDIT (\$1k)
1	City of Albuquerque		\$ 132,000.00		\$45,600.00	
2	AMAFCA	1.38	\$ 45,574.50		\$14,400.00	\$ (1,000.00)
3	UNM	0.43	\$ 14,319.39		\$13,600.00	
4	NMDOT	0.41	\$ 13,553.53		\$3,900.00	
5	Bernalillo County	0.12	\$ 3,865.56		\$19,600.00	
6	Sandoval County	0.59	\$ 19,549.95		\$15,100.00	
7	Village of Corrales	0.46	\$ 15,094.20		\$1,400.00	
8	City of Rio Rancho	0.04	\$ 1,393.20		\$14,000.00	
9	Los Ranchos de Albuquerque	0.42	\$ 13,997.46		\$1,000.00	
10	Town of Bernalillo	0.02	\$ 705.79		\$1,000.00	
11	ESCAFCA	0.03	\$ 903.81		\$500.00	
12	SSCAFCA	0.01	\$ 338.88		\$2,900.00	
	Ratio Check (Sum = Weighting Factor)	0.08	\$ 2,703.72		\$132,000.00	
		4.00				

Intergovernmental Agreement Regarding the Operation, Function,

and Funding of the Storm Water Team

THIS AGREEMENT is made and entered into this 27th day of August, 2008, by and among the County of Bernalillo ("COUNTY"), the City of Albuquerque ("COA"), the Albuquerque Metropolitan Arroyo Flood Control Authority ("AMAFCA"), the New Mexico Department of Transportation ("NMDOT"), the Southern Sandoval County Arroyo Flood Control Authority ("SSCAFCA"), and the Ciudad Soil and Water Conservation District ("CIUDAD"), all political subdivisions of the State of New Mexico, and the University of New Mexico ("UNM"), a state educational institution, individually referred to as "Party" and collectively referred to as "Parties."

WITNESSETH:

WHEREAS, the National Pollution Discharge Elimination System (NPDES) storm water discharge permits for small and large municipal separate storm sewer systems ("MS-4") include a minimum control measure regarding public outreach and education; and

WHEREAS, this minimum control measure requires each permittee to develop and distribute educational materials to the community or conduct equivalent public outreach activities about the impacts of storm water discharges on receiving water bodies and the actions that the public can take to reduce pollutants in storm water runoff; and

WHEREAS, COA, AMAFCA, NMDOT, and UNM, co-permittees of a MS-4 Phase I permit, and the COUNTY, a permittee of a Phase II permit, entered into a Cooperative Agreement dated October 20, 2005 in order to accomplish said public outreach and education, and the group informally became known as the Storm Water Team; and

WHEREAS, the Storm Water Team hired a Storm Water Quality Education Coordinator ("Coordinator") to help develop a public education campaign and produce public service announcements including print materials for distribution, and that contract expires November 2008; and

Intergovernmental Agreement Regarding the Operation, Function,

and Funding of the Storm Water Team

WHEREAS, SSCAFCA desires to combine efforts to educate the public on storm water quality as required in their Phase II storm water discharge permit, and to become one of the participating agencies of the Storm Water Team; and

WHEREAS, CIUDAD desires to combine efforts to educate the public on storm water quality as part of their Watershed Restoration Action Strategy, and to become one of the participating agencies of the Storm Water Team; and

WHEREAS, SSCAFCA and CIUDAD both desire to provide funding as part of their membership to the Storm Water Team; and

WHEREAS, each Party has an interest in reducing pollution and/or meeting storm water permit requirements within their respective boundaries, which are shown in Exhibit 1; and

WHEREAS, with new members being added, it is appropriate to enter into this Agreement in order to formalize the Storm Water Team mission and function, and establish future funding streams.

THEREFORE IN CONSIDERATION OF THE PROMISES AND COVENANTS CONTAINED HEREIN, THE PARTIES HERETO AGREE AS FOLLOWS:

1. The Storm Water Team (“Team”) will include all members that have signed a Cooperative Funding Agreement, comply with its terms and continue to fund the team. Additional non-voting members will include other agencies, organizations, or individuals that will provide technical assistance needed to allow the Team to accomplish its mission.
2. The Team will serve as the focal point on public education and outreach regarding storm water quality in the Albuquerque Reach of the Rio Grande watershed, which is

Intergovernmental Agreement Regarding the Operation, Function,

and Funding of the Storm Water Team

the area that drains to the Rio Grande between Algodones and Isleta Pueblo. The Team mission statement is hereby agreed to by the Parties:

The Storm Water Team is a multi-agency committee dedicated to providing public education and awareness regarding storm water pollution and how to reduce debris and other pollutants in the Albuquerque Reach of the Rio Grande and its tributary arroyos.

3. The Team will have an Executive Committee made up of one voting member from each Party in good standing, which is defined as having paid their expected contribution, as described in Section 4. Each Party in good standing will designate a staff member to be on the Executive Committee. Other staff liaisons will be assigned to the Team as necessary to support the Team mission. Other/outside agencies may participate on the Team by attending meetings and giving input; however, only the Executive Committee may vote on Team decisions. The purpose of the Executive Committee will be to administer and direct the Team and Coordinator in accordance with the provisions herein. Decisions of the Executive Committee will be decided by majority vote of the Executive Committee.
4. Each Party agrees to provide payment for Fiscal Year 2009 in the amount shown in the Contribution Schedule, which may include the value of Executive Committee approved in-kind services, in Attachment A. For subsequent Fiscal Years, the Contribution Schedule may be adjusted by the Executive Committee, including the value of in-kind contributions.
5. AMAFCA will be the fiscal agent for the purposes of this Agreement. All funds will be held in a separate bank account for the purposes of this Agreement. AMAFCA shall make available to any interested Party, all records, receipts, and other

Intergovernmental Agreement Regarding the Operation, Function,

and Funding of the Storm Water Team

documentation with respect to all matters concerning this Agreement, and shall have this account included in its annual audit.

6. Each Party agrees that a Storm Water Quality Education Coordinator will be hired through the Request for Proposal (RFP) process in advance of the expiration of the current Coordinator's contract. The Coordinator shall be a contractor and not an employee of AMAFCA. Responsibilities included in the Storm Water Quality Education Coordination contract will be to develop and manage a comprehensive educational and awareness campaign, arrange all purchases for deliverables and advertising on behalf of the Team, and make presentations to the public as directed. Each Party will have one representative on the Selection Advisory Committee for the request for proposals process. The Selection Advisory Committee will rank proposals and recommend the top three respondents to the AMAFCA Board of Directors. Upon AMAFCA Board of Directors' approval, AMAFCA will negotiate an agreement with the selected consultant. The Executive Committee will provide input on scope and fees; however, final negotiations and approval will be at AMAFCA's sole discretion.
7. The Parties agree that the Storm Water Quality Education Coordination contract is an ongoing program. The effectiveness of the Storm Water Quality Education Coordination contract, with regard to the Team mission statement, will be evaluated prior to annual renewal(s) or request for proposals.
8. AMAFCA will invoice each Party for their respective participation, minus the value of any Executive Committee approved in-kind contributions, in July, at the start of the Fiscal Year. Each Party will pay such invoices to AMAFCA within forty-five

Intergovernmental Agreement Regarding the Operation, Function,

and Funding of the Storm Water Team

(45) days of the date of the invoice. Invoices will be sent to Team members listed in Attachment B.

9. It is intended that the Team's operation and function described in this Agreement are ongoing, subject to continued support and authorized funding by each of the Parties. Each Party has the option to not participate in this Agreement in the future by sending written notice to all the other participating Parties at or before the expiration of the Fiscal Year. In such event, the terminating Party shall not be entitled to return of any contribution(s) made under this Agreement; and this Agreement shall remain in full force and effect by and among the remaining Parties.
10. The Team may accept one-time contributions from outside funding sources, to be used to support the Team mission. The Executive Committee will consider the requested uses of such one-time contributions and will ensure the uses are consistent with the Team's ongoing public outreach and education program. Such contributions shall not constitute voting privileges on the Executive Committee.
11. The Parties agree that effort will be expended within the respective boundaries of each participating agency, proportional to funding contributions.
12. If any situation arises which adversely affects any Party's participation in this Agreement, said Party will immediately, and in writing, notify the other Parties. Any circumstance that materially affects this Agreement will be promptly and equitably resolved by all Parties and if necessary, an amendment to this Agreement shall be executed.
13. The obligations of each Party under this Agreement shall be performed in compliance with all applicable laws, statutes and ordinances. Nothing herein is intended to

Intergovernmental Agreement Regarding the Operation, Function,

and Funding of the Storm Water Team

constitute any agreement for the Parties to perform any activity in violation of the Constitution or Laws of the State of New Mexico or the Ordinances of any entity that is a Party to this Agreement.

14. If any clause or provision in this Agreement is illegal, invalid or unenforceable, under present or future laws effective during the term of this Agreement, then and in that event, it is the intention of the parties hereto that the remainder of this Agreement shall not be affected thereby.
15. It is specifically agreed among the Parties that this Agreement does not, and is not intended to, create in the public, or any member thereof, any rights whatsoever, such as but not limited to, the rights of a third Party beneficiary, nor to authorize anyone not a Party to this Agreement to maintain a suit for wrongful death or any other claim whatsoever.
16. As among the Parties, each shall be solely responsible for any and all liability from personal injury, including death, or damage to property, arising from any negligent or intentional act or failure to act of the respective Party, its officials, agents, contractors or employees pursuant to this Agreement. Liabilities of each Party shall be subject to the immunities and limitations of the Tort Claims Act, §§41-4-1, et seq., NMSA, 1978, and any amendments thereto. By entering into this Agreement, the COUNTY and its "public employees" as defined in the New Mexico Tort Claims Act, the COA and its "public employees" as defined in the New Mexico Tort Claims Act, AMAFCA and its "public employees" as defined in the New Mexico Tort Claims Act, NMDOT and its "public employees" as defined in the New Mexico Tort Claims Act, UNM and its "public employees" as defined in the New Mexico Tort Claims

**Intergovernmental Agreement Regarding the Operation, Function,
and Funding of the Storm Water Team**

Act, SSCAFCA and its "public employees" as defined in the New Mexico Tort Claims Act, and CIUDAD and its "public employees" as defined in the New Mexico Tort Claims Act, do not waive sovereign immunity, do not waive any defense and/or do not waive any limitation of liability pursuant to law. No provision in this Agreement modifies and/or waives any provision of the New Mexico Tort Claims Act.

17. The effective date of this Agreement shall be the latest date of approval by all of the interested Parties.
18. Upon approval by all Parties, the covenants, terms and conditions of this Agreement shall be binding upon and inure to the benefit of the Parties hereto, their successors and assigns.

Intergovernmental Agreement Regarding the Operation, Function,
and Funding of the Storm Water Team

IN WITNESS WHEREOF, the undersigned have caused this Agreement to be executed as of the day and year set forth above.


Albuquerque Metropolitan Arroyo
Flood Control Authority

Date: March 20, 2008



Danny Hernandez
Chair of the Board of Directors

Attest:



Tim Eichenberg,
Secretary/Treasurer

Date: March 20, 2008

Intergovernmental Agreement Regarding the Operation, Function,
and Funding of the Storm Water Team


County of Bernalillo

Date: 5/22/08



Thaddeus Lucero, County Manager

Approved As To Form Only:



Deborah Seligman,
Assistant County Attorney

Date: 5/19/2008

Recommended By:

Tom Zdunek 

~~XXXXXX~~, Deputy County Manager
Public Works Division

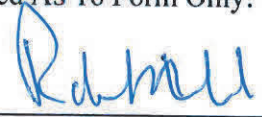
Date: 5/21/08

BC CCN 2008-0264

**Intergovernmental Agreement Regarding the Operation, Function,
and Funding of the Storm Water Team**

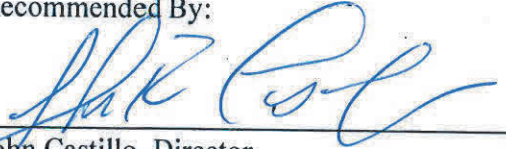
City of Albuquerque

Approved As To Form Only:

 GAPS
City Attorney

Date: 5-12-8

Recommended By:


John Castillo, Director

Date: 5/13/08

Approved By:


Dr. Bruce Perlman, Chief Administrative Officer

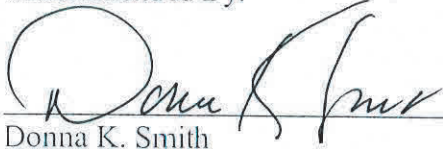
Date: 5/16/08

Intergovernmental Agreement Regarding the Operation, Function,

and Funding of the Storm Water Team

University of New Mexico

Recommended By:



Donna K. Smith
Director, Safety & Risk Services

Date: 4-23-08

Approved As To Form Only:



Richard Mertz
Associate University Counsel

Date: 4/29/08

Approved By:



David W. Harris
Executive Vice President for Administration

Date: 5/1/08

Intergovernmental Agreement Regarding the Operation, Function,
and Funding of the Storm Water Team

New Mexico Department of Transportation

Approved As To Form Only:

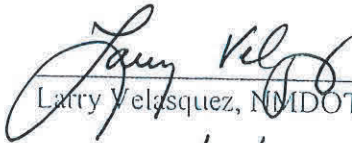


Office of the General Counsel

Date:

5/22/08

Approved By:



Larry Velasquez, NMDOT District Three Engineer

Date:

8/28/08

**Intergovernmental Agreement Regarding the Operation, Function,
and Funding of the Storm Water Team**


Ciudad Soil and Water Conservation District

Date: April 7, 2008

Lauro Silva
Lauro Silva, Chair

Intergovernmental Agreement Regarding the Operation, Function,
and Funding of the Storm Water Team

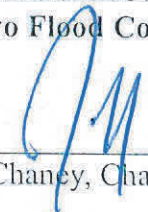
Approved as to Form:



Bernard P. Metzgar
SSCAFCA Attorney

Date: 4/18/08

Southern Sandoval County
Arroyo Flood Control Authority

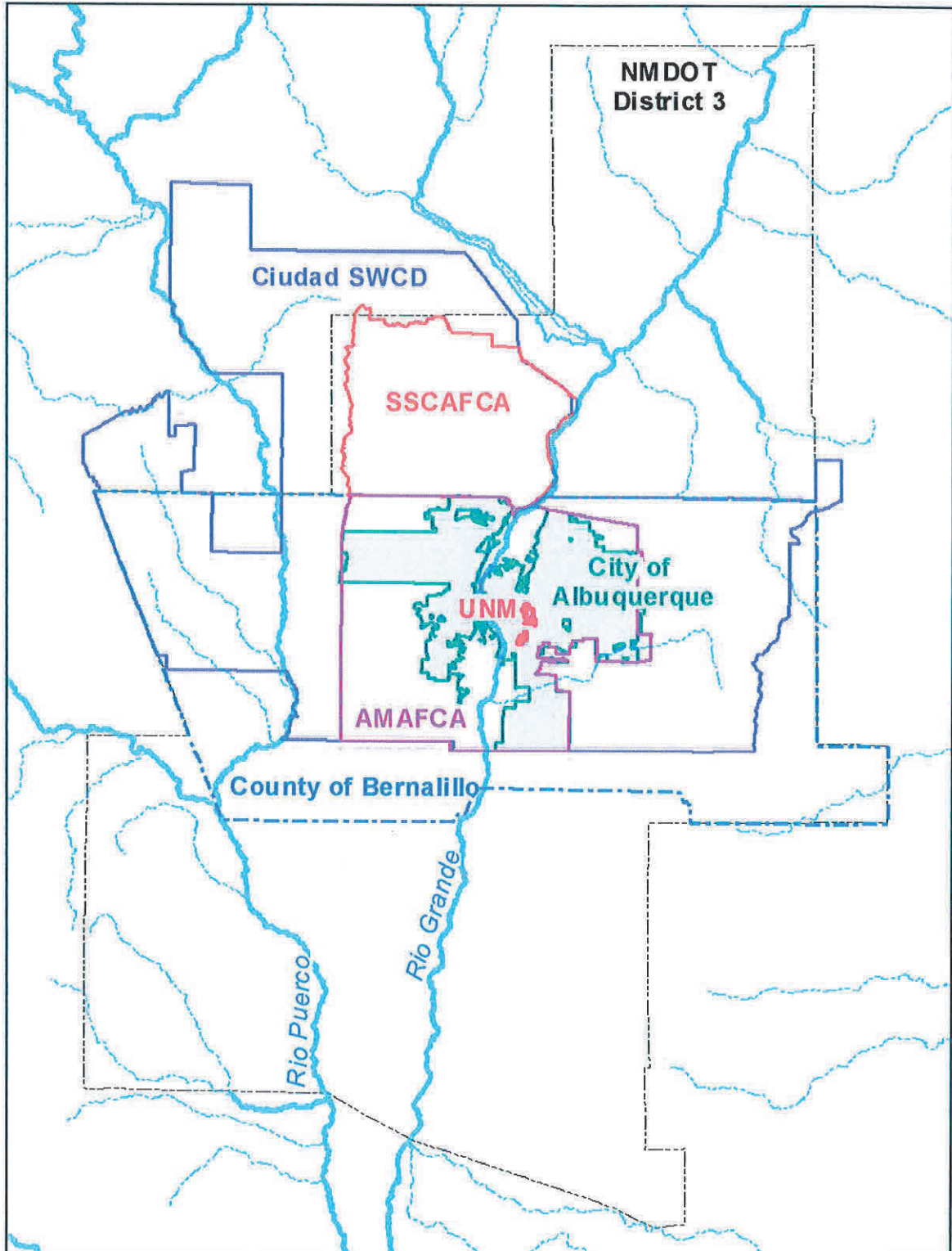


John Chaney, Chairman

Date: 5/2/08

**Intergovernmental Agreement Regarding the Operation, Function,
and Funding of the Storm Water Team**

Exhibit 1
Boundaries of Participating Agencies



Intergovernmental Agreement Regarding the Operation, Function,

and Funding of the Storm Water Team

Storm Water Team Intergovernmental Agreement – Attachment A

STORM WATER TEAM CONTRIBUTIONS

FY 05		Date received by AMAFCA
	AMAFCA	\$10,000
	City of Albuquerque	10,000
	County of Bernalillo	10,000
	UNM	7,000*
	NMDOT	10,000
	Total	\$47,000
		12/01/2004
		04/28/2005
		12/02/2004
		07/19/2005 * \$5,000 in cash. \$2,000 in KNME video
		05/26/2005
FY 06		
	AMAFCA	\$10,000
	City of Albuquerque	10,000
	County of Bernalillo	10,000
	UNM	7,000
	NMDOT	10,000
	Total	\$47,000
		12/23/2005
		01/23/2006
		06/29/2006
		02/02/2006
		06/29/2006
FY 07		
	AMAFCA	\$10,000
	City of Albuquerque	10,000
	County of Bernalillo	10,000
	UNM	7,000
	NMDOT	10,000
	Total	\$47,000
		03/21/2007
		06/13/2007
		02/11/2008
		05/22/2007
		04/02/2008
FY 08		
	AMAFCA	\$10,000
	City of Albuquerque	10,000
	County of Bernalillo	10,000
	UNM	7,000
	NMDOT	10,000
	Total	\$47,000
		10/03/2007
		09/25/2007
		03/18/2008
		12/10/2007
		04/02/2008
FY 09 Expected Contributions		
	AMAFCA	\$10,000
	City of Albuquerque	10,000
	County of Bernalillo	10,000
	UNM	7,000
	NMDOT	10,000
	SSCAFCA	10,000
	Ciudad	10,000
	Total	\$67,000

**Intergovernmental Agreement Regarding the Operation, Function,
and Funding of the Storm Water Team**

Storm Water Team Intergovernmental Agreement – Attachment B

STORM WATER TEAM CONTACT ADDRESSES

Christy Burton
AMAFCA
2600 Prospect Ave NE
Albuquerque, NM 87107

cc Irene Jeffries (same address)
on invoices

Storm Drainage Section
Dept. of Municipal Development
Attn: Kathy Verhage
P.O. Box 1293, Rm. 301
Albuquerque, NM 87103

cc Roland Penttila (same address)
on invoices

Vern Hershberger
Safety & Risk Services
1 University of New Mexico
MSC07 4100
Albuquerque, NM 87131

Send original invoices to:
Accounts Payable
1 University of New Mexico
MSC01 1290
Albuquerque, NM 87131

Carol Moritz, Administrative Manager
Ciudad Soil & Water Conservation District
6200 Jefferson NE, Room 125
Albuquerque, NM 87109

Kathy Trujillo
New Mexico Department of Transportation
District 3
PO Box 91750
Albuquerque, NM 87199-1750

Patricia Dominguez
Bernalillo County
Public Works Division
2400 Broadway Blvd SE
Bldg N
Albuquerque, NM 87102

cc Mary Murnane (same address)
on invoices

David Stoliker
SSCAFCA
1041 Commerical N.E.
Rio Rancho, New Mexico 87124