Annual Report Format

National Pollutant Discharge Elimination System Stormwater Program
MS4 Annual Report Form

Check box if you are submitting an individual Annual Report with cooperative program elements ☒

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

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

1. MS4(s) Information

City of Rio Rancho
Name of MS4

Xavier | Pettes | NPDES Project Manager
Name of Contact Person (First) (Last) (Title)

(505) 891-5045 | xpettes@rrnm.gov
Telephone (including area code) E-mail

3200 Civic Center Circle NE, Suite 130
Mailing Address

Rio Rancho | New Mexico | 87144
City State ZIP code

What size population does your MS4(s) serve? 87,521 NPDES number NMR04A007

What is the reporting period for this report? (mm/dd/yyyy) From 07/01/2017 to 06/30/2018

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	
Rio Grande NM-2105.1_00	E. coli	☒ Yes	☐ No	☒ Yes	☐ No
Rio Grande NM-2105.1_00	PCB in Fish Tissue	☐ Yes	☒ No	☐ Yes	☒ No
Rio Grande NM-2105.1_00	PCB in Water Column	☐ Yes	☒ No	☐ Yes	☒ No
Rio Grande NM-2105.1_00	Gross Alpha	☐ Yes	☒ No	☐ Yes	☒ No

2. B. Continued

Impaired Water	Impairment	Approved TMDL		TMDL assigns WLA to MS4	
		☐ Yes	☐ No	☐ Yes	☐ No
		☐ Yes	☐ No	☐ Yes	☐ No
		☐ Yes	☐ No	☐ Yes	☐ No
		☐ Yes	☐ No	☐ Yes	☐ No

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

Pet waste, Construction Waste, Illicit Discharge, Household Hazardous Waste, Septic & Sanitary Sewer System, General St

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?

General SWP, Construction Waste, Pet Waste, Household Hazardous Waste, Illicit Discharge and Animal Sources

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 Attached - Section 4. Middle Rio Grande Stormwater Quality Outcomes Report FY 2017-2018

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 ≥ 1 acre in operation in your jurisdiction at any time during the reporting period. 86

D. How many of the sites identified in 4.C did you inspect during this reporting period? 86

E. Describe, on average, the frequency with which your program conducts construction site inspections.

Private and public construction project/activities are inspected bi-weekly.

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

If Yes, based on what criteria? Activities near or adjacent to watercourse

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	5	No Authority	☐
☒ Yes	Administrative fines	0	No Authority	☐
☐ Yes	Stop Work Orders		No Authority	☒
☒ Yes	Civil penalties	0	No Authority	☐
☐ Yes	Criminal actions		No Authority	☒
☐ Yes	Administrative orders		No Authority	☒
☐ Yes	Other	N/A		

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?

CGP/Municipal Code violations: 1) Inadequate perimeter control prior to earth disturbing activities; 2) Construction and

J. How often do municipal employees receive training on the construction program? As needed and/or for new

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. 7

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?

7

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? 7

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

Spills near storm drains or outfalls are investigated immediately. Dry Weather Outfall Screening is conducted annually.

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? 4

K. Of those illicit discharges/illegal connections that have been discovered or reported, how many have been eliminated? 4

L. How often do municipal employees receive training on the illicit discharge program? As needed and/or for n

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	☐ Yes	☒ No
All municipal construction activities, including those disturbing less than 1 acre	☒ Yes	☐ No
All municipal turf grass/landscape management activities	☐ Yes	☒ No
All municipal vehicle fueling, operation and maintenance activities	☒ Yes	☐ No
All municipal maintenance yards	☒ Yes	☐ No
All municipal waste handling and disposal areas	☒ Yes	☐ No

Other None

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

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

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

Construction Site Stormwater Inspection, Dry Weather Discharges Screening, Locating Illicit Discharges, Spill Response

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? Activities near or adjacent to watercour

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? As needed and/or for new hires

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?	☒ Yes	☐ No
Long-term operation and maintenance of stormwater management controls?	☒ Yes	☐ No
Retrofitting to incorporate long-term stormwater management controls?	☒ Yes	☐ No

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

Typically retrofit are conducted in the field

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 construction project/activities cumulatively disturbing one or more acres within the MS4 jurisdiction

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.

http://rrnm.gov/1438/Development-Process-Manual --Volume--

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? 0

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

K. How long do you give operators to remedy any operation and maintenance deficiencies identified during inspections? 90 days

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? Zero

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? As needed

8. Program Resources

A. What was the annual expenditure to implement MS4 permit requirements this reporting period? 100,000.00

B. What is next year's budget for implementing the requirements of your MS4 NPDES permit? 100,000.00

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:	General Fund	Amount $		OR %	100
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)? 1.15

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

Entity	Activity/Task/Responsibility	Your Oversight/Accountability Mechanism
Various	Stormwater Quality Team (SWQT)	Signed Joint Agreement
Various	Technical Advisory Group (TAG)	Signed Joint Agreement
Various	Compliance Monitoring Coop. (CMC)	Signed Joint 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**
Example: E. coli	2003	Weekly April–September	20
Various (EPA approved analyte list)	2016	Qualifying Event (up to 7)	2
Various (EPA approved analyte list)	2014	Wet Season, annually	8
Please refer to the attached Annual			
Report or AMAFCA web site for			
additional information			

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.

Given data collected (2 years, 6 samples) by Compliance Monitoring Cooperative, trends have not been identified.

10. Additional Information

Please attach any additional information on the performance of your MS4 program, including information required in Parts I.C and III.B. If providing clarification to any of the questions on this form, 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 | Name of Certifying Official, Title | Date (mm/dd/yyyy)

MIDDLE RIO GRANDE WATERSHED BASED MUNICIPAL SEPARATE STORM SEWER (MS4) PERMIT

ANNUAL REPORT

July 1, 2017 – June 30, 2018

Section 1	**SWMP Status of Implementation** • Rio Rancho MRG MS4 SWMP
Section 2	**SWMP Revisions** • UPDATE – Pollution Prevention/Good Housekeeping for Municipal Operations • UPDATE – Public Education and Outreach on Storm Water Impacts
Section 3	**Performance Assessment** • Illicit Discharge Incident Reporting • City Sourced – Service Requests and Metrics • CGP Compliance Inspection List • MS4 Dry Weather Discharge Screening Reports • CMC Wet Season – Stormwater Monitoring Data Verification, Analysis Results, and Reporting • Notification of Exceedance • CMC Dry Season – Stormwater Monitoring Data Verification, Analysis Results, and Reporting
Section 4	**Annual Report Responsibilities for Cooperation Programs** • Outcomes Report FY 2017-2018
Section 5	**Public Review and Comment** •
Section 6	**Signature on Certification of Annual Reports** • Letter of Delegation

ANNUAL REPORT REQUIREMENTS

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

At least forty five (45) days prior to submission of each Annual Report, the permittee must provide public notice of and make available for public review and comment a draft copy of the Annual Report. All public input must be considered in preparation of the final Annual Reports and any changes to the SWMP.

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

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

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

3. **Performance Assessment**: shall include:

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

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

    c. identification of water quality improvements or degradation.

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

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

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

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

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

***40 CFR §122.26(d)(2)(v)**

(v) *Assessment of controls.* Estimated reductions in loadings of pollutants from discharges of municipal storm sewer constituents from municipal storm sewer systems expected as the result of the municipal storm water quality management program. The assessment shall also identify known impacts of storm water controls on ground water.

****40 CFR §122.34(d)(1)(I)[i]**

(d)(1) In your permit application (either a notice of intent for coverage under a general permit or an individual permit application), you must identify and submit to your NPDES permitting authority the following information:

(i) The best management practices (BMPs) that you or another entity will implement for each of the storm water minimum control measures at paragraphs **(b)(1)** through **(b)(6)** of this section;

(b)(1)

(b) Minimum control measures—(1) Public education and outreach on storm water impacts.

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

(ii) Guidance: You may use storm water educational materials provided by your State, Tribe, EPA, environmental, public interest or trade organizations, or other MS4s. The public education program should inform individuals and households about the steps they can take to reduce storm water pollution, such as ensuring proper septic system maintenance, ensuring the proper use and disposal of landscape and garden chemicals including fertilizers and pesticides, protecting and restoring riparian vegetation, and properly disposing of used motor oil or household hazardous wastes. EPA recommends that the program inform individuals and groups how to become involved in local stream and beach restoration activities as well as activities that are coordinated by youth service and conservation corps or other citizen groups. EPA recommends that the public education program be tailored, using a mix of locally appropriate strategies, to target specific audiences and communities. Examples of strategies include distributing brochures or fact sheets, sponsoring speaking engagements before community groups, providing public service announcements, implementing educational programs targeted at school age children, and conducting community-based projects such as storm drain stenciling, and watershed and beach cleanups. In addition, EPA recommends that some of the materials or outreach programs be directed toward targeted groups of commercial, industrial, and institutional entities likely to have significant storm water impacts. For example, providing information to restaurants on the impact of grease clogging storm drains and to garages on the impact of oil discharges. You are encouraged to tailor your outreach program to address the viewpoints and concerns of all communities, particularly minority and disadvantaged communities, as well as any special concerns relating to children.

(b)(6)

(6) Pollution prevention/good housekeeping for municipal operations.

(i) You must develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. Using training materials that are available from EPA, your State, Tribe, or other organizations, your program must include employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance.

(ii) Guidance: EPA recommends that, at a minimum, you consider the following in developing your program: maintenance activities, maintenance schedules, and long-term inspection procedures for structural and nonstructural storm water controls to reduce floatables and other pollutants discharged

from your separate storm sewers; controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, fleet or maintenance shops with outdoor storage areas, salt/sand storage locations and snow disposal areas operated by you, and waste transfer stations; procedures for properly disposing of waste removed from the separate storm sewers and areas listed above (such as dredge spoil, accumulated sediments, floatables, and other debris); and ways 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. Operation and maintenance should be an integral component of all storm water management programs. This measure is intended to improve the efficiency of these programs and require new programs where necessary. Properly developed and implemented operation and maintenance programs reduce the risk of water quality problems.

Section 1:

SWMP Status of Implementation

NOI Section	ID	Permit Activity Description	Proposed Plan	Measurable Goal	Status of Implementation and Performance Assessment Permit Year July 2015 to June 2016 (Permit Year 1)	Status of Implementation and Performance Assessment Permit Year July 2016 to June 2017 (Permit Year 2)	Status of Implementation and Performance Assessment Permit Year July 2017 to June 2018 (Permit Year 3)	Permit Effective Date	Cooperative Implementation Schedule	Cooperative Permit Required Implementation Schedule (Months)	Milestone Implementation Schedule	Responsible Personnel
	3	**Part I.C - Special Conditions**										
	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	According to the requirements in 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. 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.	This section of the permit is specific to COA and AMAFCA. CORR has no role or responsibility with regard to this section of the permit.	**Not Applicable**								
Not Included in NOI	6	Part I.C.1.d.(i) Identify (or continue identifying) structural elements, natural or man-made topographical and geographical formations, MS4 operations activities, or oxygen demanding pollutants contributing to reduced dissolved oxygen in the receiving waters of the Rio Grande. Both dry and wet weather discharges shall be addressed. Assessment may be made using available data or collecting additional data;	This section of the permit is specific to COA and AMAFCA. CORR has no role or responsibility with regard to this section of the permit.	**Not Applicable**								
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. CORR has no role or responsibility with regard to this section of the permit.	**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 NDC Embayment and at 1 location in the Rio Grande downstream of the mouth of the NDC within the action area (e.g., Central Bridge). B. A Quality Assurance and Quality Control (QA/QC) Plan describing all standard operating procedures, quality assurance and quality control plans, maintenance and implementation schedules that will assure timely and accurate collection and reporting of water temperature, DO, oxygen saturation, and flow. The QA/QC plan should include all procedures for estimating oxygen data when any oxygen monitoring equipment fail.	This section of the permit is specific to COA and AMAFCA. CORR has no role or responsibility with regard to this section of the permit.	**Not Applicable**								

NOI Section	ID	Permit Activity Description	Proposed Plan	Measurable Goal	Status of Implementation and Performance Assessment Permit Year July 2015 to June 2016 (Permit Year 1)	Status of Implementation and Performance Assessment Permit Year July 2016 to June 2017 (Permit Year 2)	Status of Implementation and Performance Assessment Permit Year July 2017 to June 2018 (Permit Year 3)	Permit Effective Date	Cooperative Implementation Schedule	Cooperative Permit Required Implementation Schedule (Months)	Milestone Implementation Schedule	Responsible Personnel
Not Included in NOI	9	(iv) Submit a revised strategy to FWS for consultation and EPA for approval within a year of the effective date of the permit and progress reports with the subsequent Annual Reports. Progress reports to include: (a) Summary of data. (b) Activities undertaken to identify MS4 discharge contribution to exceedances of applicable dissolved oxygen water quality standards in waters of the United States. Including summary of findings of the assessment required in Part I.C.1.d.(i). (c) Conclusions drawn, including support for any determinations. (d) Activities undertaken to eliminate MS4 discharge contribution to exceedances of applicable dissolved oxygen water quality standards in waters of the United States. (e) Account of stakeholder involvement. 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.	This section of the permit is specific to COA and AMAFCA. CORR has no role or responsibility with regard to this section of the permit.	**Not Applicable**								
Not Included in NOI	10	According to the requirements in Part I.C.3.a.(ii), the permittees shall ensure that actions to reduce pollutants or remedial activities selected for the NDC Embayment and its watershed are implemented such that there is a reduction in frequency and magnitude of all low oxygen stormwater discharge events that occur in the Embayment or downstream in the MRG as indicated in Table 1.c. Actions to meet the year 3 measurable goals must be taken within 2 years from the effective date of the permit. Actions to meet the year 5 measurable goals must be taken within 4 years from the effective date of the permit.	This section of the permit is specific to COA and AMAFCA. CORR has no role or responsibility with regard to this section of the permit.	**Not Applicable**								
Not Included in NOI	11	According to the requirements in Part I.C.3.b, the permittees (COA and AMAFCA) shall provide: A. An Annual Incidental Take Report to EPA and the Service that includes the following information: beginning and end date of any qualifying stormwater events, DO values and water temperature in the NDC Embayment, DO values and water temperature at a downstream monitoring station in the MRG, flow rate in the NDC, mean daily flow rate in the MRG, evaluation of oxygen and temperature data as either anoxic or hypoxic using Table 2 of the BO, and estimate the number of silvery minnows taken based on Appendix A of the BO. Electronic copy of The Annual Incidental Take Report should be provided with the Annual Report required under Part III.B no later than December 1 for the proceeding calendar year.	This section of the permit is specific to COA and AMAFCA. CORR has no role or responsibility with regard to this section of the permit.	**Not Applicable**								

NOI Section	ID	Permit Activity Description	Proposed Plan	Measurable Goal	Status of Implementation and Performance Assessment Permit Year July 2015 to June 2016 (Permit Year 1)	Status of Implementation and Performance Assessment Permit Year July 2016 to June 2017 (Permit Year 2)	Status of Implementation and Performance Assessment Permit Year July 2017 to June 2018 (Permit Year 3)	Permit Effective Date	Cooperative Implementation Schedule	Cooperative Permit Required Implementation Schedule (Months)	Milestone Implementation Schedule	Responsible Personnel
Not Included in NOI	12	According to the requirements in 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 provide such information within two weeks upon request. The revised strategy required under Part I.C.3.a.(ii),the Annual Incidental Take Reports required under Part I.C.3.a.(ii).(b).A, and Annual Reports required under Part III.B can be submitted to FWS via e-mail nmesfo@fws.gov and Joel lusk@fws.gov, or by mail to the New Mexico Ecological Services field office, 2105 Osuna Road NE, Albuquerque, New Mexico 87113.	This section of the permit is specific to COA and AMAFCA. CORR has no role or responsibility with regard to this section of the permit.	Not Applicable								

NOI Section	ID	Permit Activity Description	Proposed Plan	Measurable Goal	Status of Implementation and Performance Assessment Permit Year July 2015 to June 2016 (Permit Year 1)	Status of Implementation and Performance Assessment Permit Year July 2016 to June 2017 (Permit Year 2)	Status of Implementation and Performance Assessment Permit Year July 2017 to June 2018 (Permit Year 3)	Permit Effective Date	Cooperative Implementation Schedule	Cooperative Permit Required Implementation Schedule (Months)	Milestone Implementation Schedule	Responsible Personnel
	13	**Compliance with Water Quality Standards – PCBs - Part I.C.1.e**										
Not Included in NOI	14	According to the requirements in Part I.C.1.e, the permittee shall address concerns regarding PCBs in channel drainage areas specified in Part I.C.1.e.(vi) by developing or continue updating/revising and implementing a strategy to identify and eliminate controllable sources of PCBs that cause or contribute to exceedances of applicable water quality standards in waters of the United States.	This section of the permit is specific to COA, AMAFCA and Bernalillo County. CORR has no role or responsibility with regard to this section of the permit.	**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 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.	This section of the permit is specific to COA, AMAFCA and Bernalillo County. CORR has no role or responsibility with regard to this section of the permit.	**Not Applicable**								
Not Included in NOI	16	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 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.	This section of the permit is specific to COA, AMAFCA and Bernalillo County. CORR has no role or responsibility with regard to this section of the permit.	**Not Applicable**								

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	17	**Compliance with Water Quality Standards – Temperature - Part I.C.1.f**										
Not Included in NOI	18	According to the requirements in Part I.C.1.f, the permittees must continue assessing the potential effect of stormwater discharges in the Rio Grande by collecting and evaluating additional data. If the data indicates there is a potential of stormwater discharges contributing to exceedances of applicable temperature water quality standards in waters of the United States, within 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. CORR has no role or responsibility with regard to this section of the permit.	**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; (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	This section of the permit is specific to COA and AMAFCA. CORR has no role or responsibility with regard to this section of the permit.	**Not Applicable**								
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. CORR has no role or responsibility with regard to this section of the permit.	**Not Applicable**								

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	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 NOI	22	According to the requirements in Part I.C.2.b.(i), if the permittee discharges to an impaired water body with an approved TMDL (see MS4 Permit, Appendix B), where stormwater has the potential to cause or contribute to the impairment, the permittee shall include in the SWMP controls targeting the pollutant(s) of concern along with any additional or modified controls required in the TMDL and this section. As stated in the Permit, Appendix B, a bacteria TMDL for the Middle Rio Grande was approved by the New Mexico Water Quality Control Commission on April 13,2010, and by EPA on June 30, 2010. The new TMDL modifies: 1) the indicator parameter for bacteria from fecal coliform to E. coli, and 2) the way the WLAs are assigned The SWMP and required annual reports must include information on implementing any focused controls required to reduce the pollutant(s) of concern as described below:	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. CORR's proposed plans for compliance with the Permit activities are described in the sections below.	CORR's measurable goals for compliance with the Permit activities are described in the sections below.								Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division
Not Included in NOI	23	(a) Targeted Controls: The SWMP submitted with the first annual report must include a detailed description of all targeted controls to be implemented, such as identifying areas of focused effort or implementing additional BMPs that will be implemented to reduce the pollutant(s) of concern in the impaired waters. As required in Part I.C.2.b.(i).(e),the permittee shall include focused BMPs addressing the five areas below: A. Sanitary Sewer Systems (improve sanitary sewers; fix lift stations; identify and implement O&M procedures; improve violation reporting; and prevent overflows); B. On-site Sewage Facilities (address failing systems and inadequate maintenance of On-Site Sewage Facilities); C. Illicit Discharges and Dumping (effort to reduce waste sources of bacteria; for ex., septic systems, grease traps, and grit traps); D. Animal Sources (management programs to identify and target sources such as zoos, pet waste, and horse stables); E. Residential Education (bacteria from residential sites; fats, oils, and grease clogging sanitary sewer lines and resulting overflows; decorative ponds; and pet waste).	CORR's proposed plan for targeted controls for bacteria include: A. Sanitary Sewer Systems - Targeted Controls: CORR will address this area through educational and public outreach through its involvement with the MRGSWQT. B. On-site Sewage Facilities - CORR's Utility Operations Section is responsible for reporting and repairing leaks in the right-of-way, analyze water quality information; maintanance of water, wastewater, and reuse water contracts; and maintains Federal and State Permits associated with utility facilities. C. Illicit Discharges and Dumping - Targeted Controls: CORR has a robust IDDE Program. In the IDDE program, CORR has focused on illegal dumping of solid waste/refuse and removal of solid waste from sub watersheds. In addition, KRRB has an annual contract to address IDDE cleanup. D. Animal Sources - Targeted Controls: CORR will continue its focus on reducing pet waste with its involvement in the MRGSWQT educational outreach "Scoop the Poop" campaign. E. Residential Education - Targeted Controls: CORR will address this area through educational and public outreach through its involvement with the MRGSWQT.	• CORR will include the MRGSWQT Outcomes Report in each Annual Report which will summarize the activities or planned activities where educational materials are distributed. • CORR 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. • The Utility Operations Section will continue coordination with the NPDES Project Manager; informing CORR and SSCAFCA of any sewer overflows that impact CORR/SSCAFCA facilities.								Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division and Utility Operation Division
Not Included in NOI	24	(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. The value of the measurable goal must be based on one of the options presented in Part (No Suggestions).(i).(c) related to the WLA. 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).	CORR's measurable goals for targeted controls for bacteria include: A. Sanitary Sewer Systems and B. On-site Sewage Facilities - Measurable goals - Track illicit Discharges and illegal dumping, identify possible hot spots. C. Illicit Discharges and Dumping - Measurable goals - Refer to the SWMP - Table 6: Illicit Discharges and Improper Disposal - for measurable goals. D. Animal Sources - Measurable goals - 1. MRGSWQT educational outreach - Through the MRGSWQT, pet waste will be targeted through the "Scoop the Poop" campaign. E. Residential Education - Measurable goal - 1. MRGSWQT educational outreach - CORR will continue to collaborate with the MS4 permittees to improve upon the existing public education and outreach program. Program target pollutants include pet waste and trash/debris. The MRGSWQT continue to expand upon its education programs, media campaigns, printed materials including brochures, public presentations/events, giveaways, display booth/kiosk, signage at select locations, website and Facebook page.	• CORR 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. This IDDE program includes illicit discharge monitoring by CORR staff and contractors, internal coordination of information provided by the public and tracking and documentation procedures. • CORR will continue to participat in MRGSWQT "Scoop the Poop" public information campaign. • CORR 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.								Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division and MRGSWQT

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Not Included in NOI	25	According to the requirements in Part I.C.2.b.(i).(f), the permittee shall monitor or assess progress in achieving measurable goals and determining the effectiveness of BMPs, and shall include documentation of this monitoring or assessment in the SWMP and annual reports. In addition, the SWMP must include methods to be used. This program element may be coordinated with the monitoring required in Part III.A. The permittee may use the following methods either individually or in conjunction to evaluate progress towards the measurable goal and improvements in water quality as follows: A. Evaluating Program Implementation Measures or B. Assessing Improvements in Water Quality Progress towards achieving the measurable goal shall be reported in the annual report. Annual reports shall report the measurable goal and the year(s) during the permit term that the MS4 conducted additional sampling or other assessment activities.	CORR 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. In addition, CORR 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 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. SEE APPENDIX F.	• CORR 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. • CORR will conduct stormwater monitoring in accordance with Table 10, Wet Weather Monitoring Program, Part III.A.1. The goals and plan for this program are described in the Wet Weather Monitoring Program portion of this SWMP.								Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division and MRGSWQT
Not Included in NOI	26	If, by the end of the 3rd year from the effective date of the permit, the permittee observes no progress toward the measurable goal either from program implementation or water quality assessments, the permittee shall identify alternative focused BMPs that address new or increased efforts towards the measurable goal. As appropriate, the MS4 may develop a new approach to identify the most significant sources of the pollutant(s) of concern and shall develop alternative focused BMPs (this may also include information that identifies issues beyond the MS4's control). These revised BMPs must be included in the SWMP and subsequent annual reports. Where the permittee originally used a measurable goal based on an aggregated WLA, the permittee may combine or share efforts with other MS4s discharging to the same impaired stream segment to determine an alternative sub-measurable goal for the pollutant(s) of concern for their respective MS4s, as described in Part I.C.2.b.(i).(c).B above. Permittees must document the proposed schedule for the development and subsequent adoption of alternative measurable goals for the pollutant(s) of concern for their respective MS4s and associated assessment of progress in meeting those individual goals.	CORR will annually assess and evaluate the program and 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 City observes no progress toward the measurable goals either from program implementation or water quality assessments, CORR will reevaluate the program and identify alternative focused BMPs that address new or increased efforts towards the measurable goals.	• If, by the end of the 3rd year from the effective date of the MS4 Permit, CORR observes no progress toward the measurable goals either from program implementation or water quality assessments, CORR will reevaluate the program and identify alternative focused BMPs that address new or increased efforts towards the measurable goals.			See Attached - Section 3: Performance Assessment					Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division
Not Included in NOI	27	From Table 1.a, Identify potential significant sources of the pollutant of concern entering your MS4.	In 2014-2015, AMAFCA contracted with a consultant to restudy the bacteria within the Middle Rio Grande, specifically 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 - Middle Rio Grande Rio Grande E. coli Analysis and Research report for AMAFCA by water quality on-call engineer (CDM Smith) - is included in the 2015 Annual Report, Attachment II.A.	• AMAFCA, with its co-permittees from the 2012 MS4 Phase I Permit, have completed several studies related to identifying potential significant sources of the pollutant of concern entering the MRG Watershed MS4 area. The results of these studies will be used to guide the overall program plan and goals.				**December 22, 2014**	**April 22, 2016**	**16**		Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division and TAG
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 (if applicable) by pets, recreational and exhibition livestock, and zoos.	As stated above, CORR will continue its focus on reducing pet waste through continued involvement with the MRGSWQT educational outreach "Scoop the Poop" campaign.	• CORR will contribute and participate in the MRGSWQT. • CORR 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.	Fully Implemented: See Attached Section 4 - MRG SQT Outcomes Reprort FY 2015-16	Fully Implemented See Attached Section 4 - MRG SQT Outcomes Reprort FY 2016-17	Fully Implemented See Attached Section 4 - MRG SQT Outcomes Reprort FY 2017-18	**December 22, 2014**	**April 22, 2016**	**16**		Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division

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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 treatment systems.	As stated above, this is not applicable to CORR, however, CORR will address this area through educational and public outreach through its involvement with the MRGSWQT. In addition, through the IDDE Program, CORR will continue coordination with City of Rio Rancho, who will inform CORR of any sewer overflows that impact CORR facilities.	• CORR will continue membership and involvement in the cooperative MRGSWQT which will conduct educational and public outreach as well as facilitate cooperation and coordination with other MS4s in the Middle Rio Grande related to screening and notification of illicit discharges.				**December 22, 2014**	**June 22, 2016**	**18**		Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division
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.5.e) and modify as necessary to prioritize the detection and elimination of discharges contributing bacteria to the MS4.	CORR will incorporate this Permit requirement into the IDDE program, refer to the SWMP - Table 6: Illicit Discharges and Improper Disposal - for additional information.	• CORR addresses this Permit activity in the IDDE Program, refer to the SWMP - Table 6: Illicit Discharges and Improper Disposal - for additional information.				**December 22, 2014**	**June 22, 2016**	**18**		Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division
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 source identified in the Illicit Discharge Detection and Elimination program (see Part I.D.5.e).	This requirement will be addressed in conjunction with CORR's IDDE Program, refer to the SWMP - Table 6: Illicit Discharges and Improper Disposal - for additional information. CORR 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.	• CORR will review its IDDE Program results annually and identify illicit discharges that contributed bacteria to the MS4. • CORR 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.				**December 22, 2014**	**August 22, 2016**	**20**		Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division
Not Included in NOI	32	Include in the Annual Reports progress on program implementation and reducing the bacteria and updates their measurable goals as necessary. As required in Part I.C.2.b.(i).(d), the annual report must include an analysis of how the selected BMPs have been effective in contributing to achieving the measurable goal and shall include graphic representation of pollutant trends, along with computations of annual percent reductions achieved from the baseline loads and comparisons with the target loads.	CORR will include the MRGSWQT Outcomes Report in each Annual Report which will track the number of educational outreach opportunities conducted, list the number of people reached 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. In addition, if strategies are developed to address IDDEs found to contribute bacteria to the MS4, these will be reported in subsequent Annual Reports. CORR 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.	• CORR will include the MRGSWQT Outcomes Report in each Annual Report. • Strategies developed to address IDDEs found to contribute bacteria to the MS4 will be reported in subsequent Annual Reports. • CORR 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.				**Update as necessary**			Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division and MRGSWQT

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	33	**Discharges to Impaired Waters Without Approved TMDLs - Part I.C.2.b.(ii)**										
Not Included in NOI	34	According to the requirements in Part I.C.2.b.(ii), if the permittee discharges directly into an impaired water body without an approved TMDL, the permittee shall perform the following activities (described in sections below).	The Rio Grande has the following impairments, without TMDLs: • Rio Grande (Isleta Pueblo to US 550) - DO and PCBs in Fish Tissue; • Rio Grande (Alameda to US 550) - PCBs and Gross Alpha adjusted; • Rio Grande (Isleta Pueblo to Alameda) - water temperature The Tijeras Arroyo, upstream of the Four Hills Bridge, is impaired for nutrient/eutrophication. The Tijeras Arroyo, upstream of the Four Hills Bridge, is all privately owned land. CORR 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 I.C.2.b.(iii). CORR does monitor for nutrients through its Wet Weather Monitoring Program, see Table 10 of the SWMP.	• Impairment for Dissolved Oxygen is addressed in the Endangered Species Act (ESA) section - Part I.C.3. Phase 1 permittee requirement only. • Impairment for PCBs is addressed in Compliance with Water Quality Standards - PCBs - Part I.C.1.e. Phase 1 permittee requirement only. • Impairment for Temperature is addressed in Compliance with Water Quality Standards - Temperature - Part I.C.1.f. Phase 1 permittee requirement only. • Compliance monitoring (Part III.A) includes Gross Alpha testing. Future assessment related to the impairment will be based on results of those samples.								Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division, MCM, and TAG
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 existing data (e.g., IDDE Program) conducted within the permittees jurisdiction. B. Ensure that the SWMP includes focused BMPs, and corresponding measurable goals, that the permittee will implement, to reduce, the discharge of pollutant(s) of concern that contribute to the impairment of the water body. Only applicable if the permittee determines that the MS4 may discharge the pollutant(s) of concern to an impaired water body without a TMDL. The SWMP submitted with the first annual report must include a detailed description of proposed controls to be implemented along with measurable goals. C. Amend the SWMP to include any BMPs to address the pollutant(s) of concern.	Most of the impaired pollutants of concern are specifically addressed in other sections of the MS4 Program and therefore in other sections of the SWMP. Please refer to: Dissolved Oxygen and Endangered Species Act (ESA) section - Part I.C.3; PCBs are addressed in Compliance with Water Quality Standards - PCBs - Part I.C.1.e; and Temperature is addressed in Compliance with Water Quality Standards - Temperature - Part I.C.1.f. Compliance monitoring (Part III.A) includes Gross Alpha testing. The testing will allow CORR to determine background level relative to stormwater discharges. Future assessment related to this impairment will be based on results of those samples.	• Refer to other SWMP sections for: - Dissolved Oxygen is addressed in the Endangered Species Act (ESA) section - Part I.C.3. - PCBs are addressed in Compliance with Water Quality Standards - PCBs - Part I.C.1.e. - Temperature is addressed in Compliance with Water Quality Standards - Temperature - Part I.C.1.f. • Compliance monitoring (Part III.A) includes Gross Alpha testing. Future assessment and strategies related to these impairments will be based on results of the stormwater samples.								

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	36	**Endangered Species Act (ESA) Requirements - Sediment Pollutant Load Reduction Strategy - Part I.C.3.b**										
Not Included in NOI	37	According to the requirements in Part I.C.3.b, the permittee must develop, implement, and evaluate a sediment pollutant load reduction strategy to assess and reduce pollutant loads associated with sediment (e.g., metals, etc. adsorbed to or traveling with sediment, as opposed to clean sediment) into the receiving waters of the Rio Grande. The strategy must include the following elements (see sections below):	CORR's proposed plan for compliance with the Permit activities are described in the sections below.	CORR's measurable goals for compliance with the Permit activities are described in the sections below.								
Not Included in NOI	38	(i) Sediment Assessment: The permittee must identify and investigate areas within its jurisdiction that may be contributing excessive levels (e.g., levels that may contribute to exceedance of applicable Water Quality Standards) of pollutants in sediments to the receiving waters of the Rio Grande as a result of stormwater discharges. The permittee must identify structural elements, natural or man-made topographical and geographical formations, MS4 operations activities, and areas indicated as potential sources of sediments and pollutants in the receiving waters of the Rio Grande. At the time of assessment, the permittee shall record any observed erosion of soil or sediment along ephemeral channels, arroyos, or stream banks, noting the scouring or sedimentation in streams. The assessment should be made using available data from federal, state, or local studies supplemented as necessary with collection of additional data. The permittee must describe, in the first annual report, all standard operating procedures, quality assurance plans to assure that accurate data are collected, summarized, evaluated and reported.	CORR will identify and investigate areas that may be contributing excessive levels of pollutants in sediment to receiving water of the Rio Grande. Structural elements, topographical and geographical formations, MS4 operations, and areas identified, and observed erosion of soil or sediment along arroyos will be recorded.	• CORR's O&M activities, which include sediment removal, will be scheduled, tracked, and evaluated for the Sediment Assessment requirement for this Permit activity. • CORR will document its procedure for sediment removal, scheduling, and tracking related to using this information for the Sediment Assessment.								Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division
Not Included in NOI	39	(ii) Estimate Baseline Loading: Based on the results of the sediment pollutants assessment required in Part I.C.3.b.(i) above, the permittee must provide estimates of baseline total sediment loading and relative potential for contamination of those sediments by urban activities for drainage areas, sub-watersheds, Impervious Areas (IAs), and/or Directly Connected Impervious Area (DCIAs) draining directly to a surface waterbody or other feature used to convey waters of the United States. Sediment loads may be provided for targeted areas in the entire Middle Rio Grande Watershed using an individual or cooperative approach. Any data available and/or preliminary numeric modeling results may be used in estimating loads.	The data collected in the Sediment Assessment will be used by CORR for estimating baseline sediment loading to its facilities.	• CORR will utilize the data collected in the Sediment Assessment for estimating baseline sediment loading to its facilities.								

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Not Included in NOI	40	(iii) Targeted Controls: Include a detailed description of all proposed targeted controls and BMPs that will be implemented to reduce sediment pollutant loads, calculated in Part I.C.3.b.(ii) above, during the next ten (10) years of permit issuance. For each targeted control, the permittee must include interim measurable goals (e.g., interim sediment pollutant load reductions) and an implementation and maintenance schedule, including interim milestones, for each control measure, and as appropriate, the months and years in which the MS4 will undertake the required actions. Any data available and/or preliminary numeric modeling results may be used in establishing the targeted controls, BMPs, and interim measurable goals. The permittee must prioritize pollutant load reduction efforts and target areas (e. g. drainage areas, sub watersheds, IAs, DCIAs) that generate the highest annual average pollutant loads.	Analysis of the Sediment Assessment and Estimated Baseline Loading will be used by CORR to improve their program to target and prioritize sediment removal throughout the watershed. For existing facilities, CORR will begin adding a detailed description and photo for each facility to its tracking spreadsheet or program procedure.	• After analyzing the Sediment Assessment findings, CORR will improve this program and program tracking to meet the Permit activity requirements. • CORR will begin adding a detailed description and photo for each facility (each existing targeted control) to its tracking spreadsheet or program procedure.								
Not Included in NOI	41	(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.	CORR will annually assess progress for this program. CORR will monitor the volume of sediment captured by each of its facilities 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.	• CORR will include in each Annual Report a progress update for this program.								
Not Included in NOI	42	(v) Progress Evaluation and Reporting: The permittee must assess the overall success of the Sediment Pollutant Load Reduction Strategy and document both direct and indirect measurements of program effectiveness in a Progress Report to be submitted with the fifth Annual Report. Data must be analyzed, interpreted, and reported so that results can be applied to such purposes as documenting effectiveness of the BMPs and compliance with the ESA requirements specified in Part I.C.3.b. The Progress Report must include: (a) A list of species likely to be within the action area: (b) Type and number of structural BMPs installed; (e) Evaluation of pollutant source reduction effects; (d) Any recommendation based on program evaluation; (e) Description of how the interim sediment load reduction goals established in Part I.C.3.b.(iii) were achieved; and (f) Future planning activities needed to achieve increase of sediment load reduction required in Part I.C.3.d.(iii).	CORR will annually evaluate progress for this program. CORR will monitor the volume of sediment captured by each of its facilities 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.	• CORR will complete and provide to 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 Permit requirements.								
Not Included in NOI	43	(vi) Critical Habitat: Verify that the installation of stormwater BMPs will not occur in or adversely affect currently listed endangered or threatened species critical habitat by reviewing the activities and locations of stormwater BMP installation within the location of critical habitat of currently listed endangered or threatened species at the FWS website http://criticalhabitat.fws.gov/crithab/.	CORR considers critical habitat for all of its projects, working closely with the USFWS and USACE, as required, and will continue this practice related to any BMPs installed related to sediment capture and removal.	• CORR will continue its practice of coordination with the USFWS and USACE, as required, related to CORR's facility construction projects.								

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	44	**Part I.D.5 - Stormwater Management Plan (SWMP) Control Measures**										
	45	**TABLE 2: Construction Site Stormwater Runoff Control - Part I.D.5.a**										
See NOI Sections Below	46	5.a.(i) The permittee shall develop, revise, implement, and enforce a program to reduce pollutants in any stormwater runoff to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activity disturbing less than one acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. Permittees previously covered under permit NMS000101 or NMR040000 must continue existing programs, updating as necessary, to comply with the requirements of this permit. (Note: Highway Departments and Flood Control Authorities may only apply the construction site stormwater management program to the permittees own construction projects)	CORR's Construction Site Stormwater Runoff Control Program (CSSRCP) addresses stormwater management during construction of CORR projects that result in a land disturbance of greater than or equal to one acre.	• Coordinate CSSRCP requirements (as detailed in Program and in sections below)								Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division
1.1	47	Development of an ordinance or other regulatory mechanism as required in Part I.D.5.a.(ii)(a)	Continue implementation and enforcement of existing CORR Municipal Code 153.35(F)(2)(d), which states ALL construction projects, both public and private, require an approved erosion control plan prior to start of construction. Erosion control plans address all phases of each project from initial grading through and including final occupancy. CORR will continue to maintain, update, implement, and enforce existing Erosion Control Ordinance to satisfy applicable permit requirements.	CORR will continue to work with the MS4 Technical Advisory Group (TAG) and other agencies to discuss and help develop and/or enhance existing regulatory mechanisms.	Full Implemented: CORR Municipal Code 153.35(F)(2)(d).			**December 22, 2014**	**June 22, 2016**	**18**		Program Lead: Development Services Engineering Division Manager Implementation: Development Services Department
1.2	48	Develop requirements and procedures as required in Part I.D.a(ii).(b) through Part I.D.a(ii).(h). These Permit sections include requirements for CORR to implement and enforce requirements for construction site operators to 1) implement appropriate erosion and sediment control BMPs - Part I.D.a(ii).(b) and 2) control waste at the construction site that may cause adverse impacts to water quality - Part I.D.a(ii).(c). Permit sections also include requirements to develop procedures for site plan review which incorporate consideration of potential water quality impacts - Part I.D.a.(ii).(d); receipt and consideration of information submitted by the public - Part I.D.a.(ii).(e); site inspection (during construction) and enforcement of control measures - Part I.D.a.(ii).(f); to educate and train permittee personnel and developers, construction site operators, contractors and supporting personnel - Part I.D.a.(ii).(g); and for keeping records of and tracking all regulated construction activities within the MS4 - Part I.D.a.(ii).(h).	As part of CORR's Program, CORR Project Managers will continue to review all site plans and the SWPPPs to ensure consistency with federal, state and local sediment and erosion control requirements for CORR projects. CORR staff performs and will continue to perform incremental reviews of all CORR projects during design to assure quality control and design efficiency. CORR will require submittal of required SWPPP inspection reports from a qualified inspector to the project manager. In addition, construction site SWPPPs will continue to be discussed at weekly construction meetings to ensure appropriate inspections and any needed corrective measures are implemented. CORR will maintain records of all CORR-led projects disturbing at least one acre within its rights-of-way. This will include CORR's CSSRCP records, including NOIs, NOI tracking, inspection reports, non-conformance documents, and training documents.	• Review site plans and the SWPPPs for CORR-owned projects disturbing at least one acre in order to consider potential water quality impacts and ensure consistency with federal, state and local sediment and erosion control requirements. Ensure SWPPPs for projects are developed by qualified individuals. • Conduct pre-construction meetings on CORR-owned construction projects disturbing at least one acre prior to beginning earth-disturbing activities in order to discuss the SWPPP, NOI and BMPs. • CORR will post a contact phone number at all required construction sites. • In a cooperative effort with SSCAFCA, the DSD ENG reviews private development that has a direct connection to CORR facilities for projects disturbing at least one acre. Review includes stormwater conveyance, water quality and erosion control. • CORR will maintain records of all CORR-owned construction projects disturbing at least one acre within its rights-of-way.				**December 22, 2014**	**June 22, 2016**	**18**		Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division
1.3	49	Annually conduct site inspections of 100 percent of all construction projects cumulatively disturbing one (1) or more acres as required in Part I.D.a.(iii)	As part of CORR's Program, CORR Project Managers will continue to require field inspections by qualified individuals on CORR construction projects which disturb at least one acre at the Construction General Permit required inspection frequency. At a minimum, CORR staff will inspect each project An inspection form has been developed and will be used for all inspections. Should the contractor fail to operate, maintain and repair the BMPs and control measures, CORR staff have the contractual authority to temporarily suspend work, withhold/stop payment, or terminate the contract should such issues go uncorrected.	• CORR will complete the inspections for 100% of the active construction sites under contract by CORR which disturb at least one acre. • CORR will develop a SWPPP inspection form and will track all MS4 inspections using a tracking spreadsheet. • CORR will maintain copies of the completed MS4 inspection forms. • CORR 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.		Fully Implemented -		**December 22, 2014**	**December 22, 2016**	**24**		Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division

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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.D.a.(iv). Planning documents include, but are not limited to: comprehensive or master plans, subdivision ordinances, general land use plan, zoning code, transportation master plan, specific area plans, such as sector plan, site area plans, corridor plans, or unified development ordinances.		• CORR will continue regular coordination amongst engineering staff and to verify that BMPs are in place to control erosion during construction on CORR owned projects.				**December 22, 2014**	**February 22, 2016**	**14**		
1.5	51	Evaluation of GI/LID/Sustainable practices in site plan reviews as required in Part I.D.a.(v). The site plan review must include an evaluation of opportunities for use of GI/LID/ Sustainable practices and when the opportunity exists, encourage project proponents to incorporate such practices into the site design to mimic the pre-development hydrology of the previously undeveloped site. For purposes of this permit, pre-development hydrology shall be met according to Part I.D.5.b of this permit (consistent with any limitations on that capture). Include a reporting requirement of the number of plans that had opportunities to implement these practices and how many incorporated these practices.	CORR will preform a Development Manual review to assess opportunities for the use of GI/LID sustainable practices. CORR will continue to encourage use of sustainable practices during the review phase of projects within CORR's right-of-ways. CORR will encourage an evaluation of sustainable GI/LID practice opportunities within the watershed. CORR, the reporting requirement of the number of plans that had opportunities to implement these practices and how many incorporated these practices also does not apply.	• CORR will annually report the number of plans that were reviewed within CORR's right-of-ways that had opportunities to implement GI/LID/Sustainable practices and how many incorporated these practices.	In - Process - Reviewing	In - Process - Task Order - MS4 Watershed Based Permit Rio Rancho Ordinance Modification. Notice to Proceed issued to Weston Solutions, Inc. on March 16, 2017	Fully Implemented: On May 23, 2018 admendments to the Chapter 153 Erosion Control; Storm Drainage and Stormwater Quality Ordinance was adopted. See Section 153.35(F)(2)(e) Stormwater Quality Design (SQD).	**December 22, 2014**	**February 22, 2016**	**14**		N/A
Not Included in NOI	52	Update the SWMP document and annual report as required in Part I.D.5.a.(vi) and in Part I.D.5.a.(vii)	CORR will include in each annual report a summary of the number and frequency of site reviews and inspections activities that are conducted annually and cumulatively during the permit term.	• Annually evaluate and revise the CSSRCP, as necessary, to ensure that CORR's Program meets the MS4 Permit requirements. • Include in each annual report a summary of the number and frequency of site reviews and inspection activities that are conducted annually and cumulatively during the permit term.				**Update as necessary**				Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division
1.6	53	Enhance the program to include the elements in Part I.D.5.a.(viii) through part I.D.5.a.(x). These include: (viii) Use of stormwater educational materials; (ix) Develop or update existing construction handbooks; and (x) construction inspections may be carried out in conjunction with other inspections and use a screening prioritization process.	The National Pollutant Discharge Elimination System Manual - Storm Water Management Guidelines for Construction and Industrial Activities is endorsed by the City of Rio Rancho, and its use is encouraged for any development that has the potential to generate stormwater through either construction or industrial activities with exposure to stormwater. CORR will continue to use stormwater educational materials, either developed locally or provided by EPA, NMED environmental, public interest, trade organizations, and/or other MS4s. CORR 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).	• CORR 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. • CORR will continue to attend and participate in the TAG to exchange information with other MS4s regarding potential program enhancements.				**Update as necessary**				Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division

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	54	**TABLE 3: Post-Construction Stormwater Management in New Development and Redevelopment- Part I.D.5.b**										
See NOI Sections Below	55	Part I.D.5.b.(i) The permittee must develop, revise, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the MS4. The program must ensure that controls are in place that would prevent or minimize water quality impacts. Permittees previously covered under NMS000101 or NMR040000 must continue existing programs, updating as necessary, to comply with the requirements of this permit. (Note: Highway Departments and Flood Control Authorities may only apply the post-construction stormwater management program to the permittees own construction projects).	Fully Implemented - CORR, Development Manual, Vol. II Section 5.F., Erosion and Stormwater Pollution Control and Section 8.D.1.C.2 Erosion Protection and Stormwater Pollution Prevention Practices. A) Project owners and the owners contractor shall complete federal USEPA Notice of Intent (NOI) prior to commencement of any construction project disturbing 1 or more acres of land area. B) Stormwater Pollution Prevention Plan (SWPPP) and accompanying federal USEPA administrative procedures shall meet the guidelines and procedures outlined in the current 2012 edition of the NPDES Manual Stormwater Management Guidelines for Construction Activities.	Track and enforce CORR Development Manual and federal USEPA NOI procedures for 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.								Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division
2.1	56	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.	CORR will compile conceptual design examples of structural BMP's for implementation on development and redevelopment sites to treat 90th and 80th percentile storms respectively. Sources include: NPDES MS4 Manual, EPA BMP Design Guide, and EPA Technical Report #832-R14-007. CORR will continue to include both structural and non-structural BMPs to control pollutants in stormwater runoff from CORR owned facilities.	• CORR will continue to include both structural and non-structural BMPs to control pollutants in stormwater runoff from CORR owned facilities.	In-Process -	In - Process - Task Order - MS4 Watershed Based Permit Rio Rancho Ordinance Modification. Notice to Proceed issued to Weston Solutions, Inc. on March 16, 2017	Fully Implemented: On May 23, 2018 admendments to the Chapter 153 Erosion Control; Storm Drainage and Stormwater Quality Ordinance was adopted. See Section 153.35(F)(2)(e). EPA publication number 832-R-14077 is included in the defination of Stormwater Quality Design Storm/Event	**December 22, 2014**	**February 22, 2016**	**14**		Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division
2.2	57	Development of an ordinance or other regulatory mechanism as required in Part I.D.5.b.(ii)(b)	CORR will review existing Erosion Control/Storm Drainage ordinance and outline need for ordinance modification to address GI/LID requirements. Perform concurrent review of CORRs Development Process Manual to assess need for design modification to address stormwater quality design standards. CORR will continue to work with the MS4 Technical Advisory Group (TAG) and other agencies to discuss and help develop regulatory mechanisms.	• CORR will continue to work with the MS4 Technical Advisory Group (TAG) and other agencies to discuss and help develop regulatory mechanisms.			Fully Implemented: On May 23, 2018 admendments to the Chapter 153 Erosion Control; Storm Drainage and Stormwater Quality Ordinance was adopted. See Section 153.21(B)(2)(f)	**December 22, 2014**	**December 22, 2017**	**36**		Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division
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).	CORR will review existing Erosion Control/Drainage Ordinance, implement and enforce to the maximum extent practicable.	• CORR will develop strategies to administratively or contractually address post-construction peak flow runoff from new development and redevelopment projects within CORR's jurisdiction and/or right of ways to the extent allowable under State, Tribal, or local law.			Fully Implemented: On May 23, 2018 admendments to the Chapter 153 Erosion Control; Storm Drainage and Stormwater Quality Ordinance was adopted. See Section 153.37 Enforcement	**December 22, 2014**	**December 22, 2018**	**48**		Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division
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).	Preform a review of the Development Process Manual to assess needs for pre-construction BMP review, BMP inspection , and post-construction maintenance. For watershed cooperative elements, CORR is a member of the MS4 TAG cooperative group and will exchange information regarding training opportunities for staff as well as technical information in that group context.	• Ensure post-construction program requirements are constantly reviewed as appropriate to incorporate improvements in control techniques.		In-Process -	Fully Implemented: On May 23, 2018 admendments to the Chapter 153 Erosion Control; Storm Drainage and Stormwater Quality Ordinance was adopted. See Section 153.21 Stormwater Quality Protection	**December 22, 2014**	**June 22, 2017**	**30**		

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2.5	60	Develop procedures as required in Part I.D.5.b.(ii). (e) - for educational program for project developers; Part I.D.5.b.(ii). (f) - for site inspections and enforcement for long-term operation, maintenance, and repair of BMPs; Part I.D.5.b.(ii). (g) - for control of discharge related to pesticides, herbicides, and fertilizer; and Part I.D.5.b.(ii). (h) - for review and update of the post-construction program.	I.D.5.b.(ii).(e) - As a cooperative program, CORR contributes to the MRGSWQT, which includes training on GI/LID and sustainability practices. This is achieved by sponsoring conferences featuring GI/LID lectures, such as the Land and Water Summit. Reporting on the MRGSWQT activities will be part of TABLE 8: Public Education and Outreach on Stormwater Impacts - Part I.D.5.g. I.D.5.b.(ii).(f) - CORR is responsible for all long term inspection, operation, maintenance, and repair of its own facilities. CORR will perform inspections, maintenance and repair on a pre and post-monsoon cycle. I.D.5.b.(ii).(g) - CORR will only allow certified staff or professionally licensed contractors to apply herbicides within CORR right-of-way (CORR does not apply pesticides or fertilizers in its operations). This is covered in TABLE 4 - Pollution Prevention/Good Housekeeping for Municipal/Co-permittee Operations - Part I.D.5.c. I.D.5.b.(ii).(h) - CORR's routine O&M activities address post-construction stormwater management at all CORR facilities. CORR will continue to participate in the cooperative called the Middle Rio Grande Storm Water Quality Team (MRGSQT), along with the City of Albuquerque, NMDOT, AMAFCA, City of Rio Rancho, Sandoval County and Town of Bernalillo and any other entities joining the cooperative.	• CORR 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.	Elements of the Proposed Plan have been implemented			**December 22, 2014**	**June 22, 2016**	**18**		Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division
2.6	61	Coordinate internally with all departments and boards with jurisdiction over the planning, review, permitting, or approval of public and private construction projects/ activities within the permit area as required in Part I.D.5.b.(iii) related to developed hydrology mimicking pre-development hydrology.	Fully Implemented - CORR requires all construction projects to adhere to the following design standard: CORR Development Manual, Vol. II, Storm Drainage Release Rate - The maximum discharge from developed property in the event of a 100 year 6 hour storm shall be the amount of the historic or pre-developed runoff in all watersheds in the City of Rio Rancho.	• CORR will coordinate internally on studies and projects for MS4 Permit compliance with developed hydrology mimicking pre-development hydrology. CORR will abide by the NM OSE rule and plan/design its facilities to drain within 96 hours per the OSE requirements.	Fully Implemented: CORR requires all construction projects to adhere to the following design standard: CORR Development Manual, Vol. II, Storm Drainage Release Rate - The maximum discharge from developed property in the event of a 100 year 6 hour storm shall be the amount of the historic or pre-developed runoff in all watersheds in the City of Rio Rancho.			**December 22, 2014**	**December 22, 2015**	**12**		Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division
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.	CORR will assess existing codes, ordinances, planning documents and other applicable regulations for impediments to the use of GI/LID/Sustainable practices. The NM OSE regulates the water delivery to the Rio Grande in order to meet water delivery requirements to Texas; therefore, CORR's objective is to design its facilities to drain within 96 hours per the OSE requirements.	• CORR will assess existing codes, ordinances, planning documents and other applicable regulations for impediments to the use of GI/LID/Sustainable practices that CORR has jurisdiction over				**December 22, 2014**	**December 22, 2016**	**24**		Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division
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.	CORR will conduct a GI/LID/Sustainavle assessment.	• CORR will develop and submit a report of the assessment findings on GI/LID/Sustainable practices. This will be completed in by March 2017 and submitted to the EPA with the Annual Report, due Dec. 1, 2017.				**December 22, 2014**	**March 22, 2017**	**27**		Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division
2.9	64	Estimation of the number of acres of IA and DCIA as required in Part I.D.5.b.(vi).	CORR will estimate the IA and DCIA within regulated jurisdiction and/or right of way.	• CORR will estimate the IA and DCIA within regulated jurisdiction and/or right of way. This will be done annually as part of the Annual Report preparation. This will be a cooperative effort with other Middle Rio Grande MS4s.				**December 22, 2014**	**June 22, 2017**	**30**		Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division

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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 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.	CORR will continue to keep an inventory and develop a priority ranking of CORR owned properties and facilities that may have the potential for retrofitted control measures and stormwater quality facilities and BMPs. CORR will continue to meet with area MS4s to discuss areas requiring drainage and water quality retrofits, project priorities, and multi-agency funding. Internally, using the Project Schedule, water quality projects and water quality retrofit projects will be prioritized. CORR will evaluate the existing BMPs based on their effectiveness and capacity in order to identify where additional BMPs are needed. CORR will continue to invite all MS4s to the series of meetings for project planning on infrastructure retrofitting. CORR is also a member of the MS4 TAG cooperative group. The NM Office of the State Engineer (OSE) regulates the water delivery to the Rio Grande in order to meet water delivery requirements to Texas; therefore, CORR's objective is to design its facilities to drain within 96 hours per the OSE requirements.	• CORR will continue to meet with agencies within its jurisdiction to discuss the areas requiring drainage and water quality retrofitting within the Middle Rio Grande Watershed, project priorities, and multi-agency funding contributions. • CORR will utilize the Project Schedule to prioritize water quality projects and water quality retrofit projects. • CORR 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. • CORR will evaluate the existing BMPs within its most urbanized watershed, the Montoyas Arroyo watershed, based on their effectiveness and capacity. These studies will provide the basis for determining where additional BMPs may be required within this watershed.				**December 22, 2014**	**June 22, 2018**	**42**		Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division
2.11	66	Incorporate watershed protection elements into regular planning or policy documents as required in Part I.D.5.b.(viii). As applicable to each permittee's MS4 jurisdiction, policy and/or planning documents must include the following: (a) A description of master planning and project planning procedures to control the discharge of pollutants to and from the MS4. (b) Minimize the amount of impervious surfaces (roads, parking lots, roofs, etc.) within each watershed, by controlling the unnecessary creation, extension and widening of impervious parking lots, roads and associated development. (c) Identify environmentally and ecologically sensitive areas that provide water quality benefits and serve critical watershed functions within the MS4 and ensure requirements to preserve, protect, create and/or restore these areas are developed and implemented during the plan and design phases of projects in these identified areas.	For CORR projects, watershed protection elements will be incorporated when feasible into drainage management plans, as appropriate, in order to identify watersheds which can be retrofitted with regional water quality facilities. Part I.D.5.b.(viii).(c) - During planning of CORR projects, environmentally and ecologically sensitive areas that provide water quality benefits are considered.	• CORR will participate in meetings for project planning of infrastructure retrofitting either on a watershed wide or regional scale. • For projects led by CORR, watershed protection elements will be incorporated into Drainage Management Plans, as appropriate, in order to identify watersheds which potentially can be retrofitted with regional water quality facilities.				**December 22, 2014**	**June 22, 2017**	**30**		Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division
2.11	67	Continuation of incorporate watershed protection elements into regular planning or policy documents as required in Part I.D.5.b.(viii). (d) Implement stormwater management practices that minimize water quality impacts to streams, including disconnecting direct discharges to surface waters from impervious surfaces such as parking lots. (e) Implement stormwater management practices that protect and enhance groundwater recharge as allowed under the applicable water rights laws. (f) Seek to avoid or prevent hydromodification of streams and other water bodies caused by development, including roads, highways, and bridges. (g) Develop and implement policies to protect native soils, prevent topsoil stripping, and prevent compaction of soils. (h) The program must be specifically tailored to address local community needs (e.g. protection to drinking water sources, reduction of water quality impacts) and must be designed to attempt to maintain pre-development runoff conditions.	Part I.D.5.b.(viii).(e) - The NM OSE regulates the water delivery to the Rio Grande in order to meet water delivery requirements to Texas; therefore, CORR's objective is to design its facilities to drain within 96 hours per the OSE requirements. Part I.D.5.b.(viii).(f) - CORR projects, to the extent feasible, will seek to avoid or prevent hydromodification of streams and other water bodies caused by CORR projects. Part I.D.5.b.(viii).(g) - For CORR projects, CORR strives, to the extent possible, to protect native soils, prevent topsoil stripping, and prevent compaction of soils. This will be incorporated into a written procedure.	• CORR will develop a written procedure that includes applicable watershed protection elements in Part I.D.5.b.(viii).(g) as required in the MS4 Permit and as applicable to CORR. • CORR will continue to contribute and participate in the MRGSWQT, which supports programs tailored to address local community needs and are designed to attempt to maintain pre-development runoff conditions.				**December 22, 2014**	**June 22, 2017**	**30**		Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division

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Not Included in NOI	68	Update the SWMP document and annual report as required in Part I.D.5.b.(ix) and Part I.D.5.b.(x). The following information must be included in each annual report: (a) Include a summary and analysis of all maintenance, inspections and enforcement, and the number and frequency of inspections performed annually. (b) A cumulative listing of the annual modifications made to the Post-Construction Stormwater Management Program, and (c) According to the schedule presented in Table 3, the permittee must: A. Report the number of MS4-owned properties and infrastructure that have been retrofitted with control measures designed to control the frequency, volume, and peak intensity of stormwater discharges. B. As required in Part I.D.5.b.(vi), report the tabulated results for IA and DCIA and its estimation methodology.	As required in Part I.D.5.b.(x).(a), CORR tracks all crew activity related to maintenance of all water quality structures. A summary of the information will be included in each annual report. (c)A. As required in Part I.D.5.b.(x).(c).A, CORR will report on properties and infrastructure within CORR jurisdiction that have been retrofitted with control measures designed to control frequency, volume and peak intensity of stormwater discharges. (c)B. CORR will support other MRG permittees with their IA and DCIA reporting requirements in Part I.D.5.b.(x).(c).B.	• CORR will continue to track all maintenance activity related to maintenance of all CORR owned water quality structures. A summary of the information will be included in each annual report. • CORR will include a cumulative list of retrofitted CORR facilities in each annual report. • CORR will continue to provide MRG permittees with information to support their IA and DCIA reporting requirements to EPA.				**Update as necessary**				
2.12	69	Enhance the program to include the elements in Part I.D.5.b.(xi) and Part I.D.5.a.(xii). These include: (xi) Use of stormwater educational materials; (xii) Develop or update existing construction handbooks; and (x) participate in watershed planning efforts to aid with BMP selection and planning.	CORR will continue to use stormwater educational materials, either developed locally or provided by EPA, NMED environmental, public interest, trade organizations, and/or other MS4s. CORR will work continue to participate in the watershed-planning efforts with other MS4s in order to publish the ICIP annually. CORR 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.	• CORR 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. • CORR will continue to contribute and participate in the MRGSWQT, which supports post-construction programs. • CORR will participate in any meetings regarding watershed planning efforts. CORR will continue to produce and publish the CORR ICIP annually. • CORR 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.				**Update as necessary**				Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering and MRGSWQT

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	70	**TABLE 4: Pollution Prevention/Good Housekeeping for Municipal/Co-permittee Operations - Part I.D.5.c**										
3.1	71	Develop or update the Pollution Prevention/Good House Keeping program to include the elements in Part I.D.5.c.(i). Elements include: employee training program to incorporate pollution prevention and good housekeeping, including a tracking procedure (Part I.D.5.c.(i).(a)); O&M activities, schedules, and long term inspections procedures for structural and non-structural stormwater controls (Part I.D.5.c.(i).(b)); Controls for reducing or eliminating the discharge of pollutants from City owned facilities (Part I.D.5.c.(i).(c)) Procedures for properly disposing of waste removed from CORR facilities (sediment, floatables, and other debris) (Part I.D.5.c.(i).(d)); and 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)).	The City is currently reviewing existing employee training programs targeting pollution prevention and good housekeeping techniques with all City departments. The City will determine whether existing training programs are designed to meet the requirements of Part I.D.5.c.(i). The City will then develop/enhance the training programs targeting requirements of Part I.D.5.c.(i) including a tracking procedure that ensures employee turnover is considered. The City will develop a pollution prevention and good housekeeping annual workshop/training for municipal employees responsible for operations and maintenance of the pertinent City facilities.	• The City will then develop/enhance the training programs targeting requirements of Part I.D.D.c.(i) including a tracking procedure that ensures employee turnover is considered. • The City will develop a pollution prevention and good housekeeping annual workshop/training for municipal employees responsible for operations and maintenance of the pertinent City facilities.				**December 22, 2014**	**June 22, 2016**	**18**		
3.2	72	Enhance the program to include the elements in Part I.D.5.c.(ii). These include: (a) Develop or update the existing list of all stormwater quality facilities by drainage basin, including location and description;	The City is completing an inventory of City owned stormwater quality facilites by drainage basin. The City will then udpate the inventory of facilites with GIS locations and provide descriptions for each.			In-Process -	Fully Implemented -	**December 22, 2014**	**June 22, 2017**	**30**		
3.2	73	(b) Develop or modify existing operational manual for de-icing activities addressing alternate materials and methods to control impacts to stormwater quality;	The City is currently reviewing existing operations pertaining to de-icing activities. Once a review of the exising opertations is completed the City will develop or modify the opoerations for de-icing. The City will consider alterante materials and methods to control impacts to stormwater quality.			In-Process -	Reactive Snow Removal Program - The City does not perform snow and ice removal for residential streets.	**December 22, 2014**	**June 22, 2017**	**30**		
3.2	74	(c) Develop or modify existing program to control pollution in stormwater runoff from equipment and vehicle maintenance yard;	The City is currently reviewing existing programs in place that control stromwater runoff from equiment and vehicle maintenance. Once a review of existing programs is complete the City will develop or modify the programs.	1) Develop SWPPP scope of work. 2) Secure funding. 3) Issue notice to proceed. 4) Implement SWPPP recommendations.		In-Process -	Fully Implemented - See Section 2 - PPGH Municipal Operations, Appendix F	**December 22, 2014**	**June 22, 2017**	**30**		
3.2	75	(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;	The City is currently reviewing our existing street sweeping program. Once a review of existing programs is complete the City will develop or modify the program per (Part I.D.5.c.(ii).(d)).			In-Process -	Reactive Street Sweeping Program - Road sweeping consists of sweeping paved roads as conditions permit. The City attemps to sweep all residential roads at least once every two years.	**December 22, 2014**	**June 22, 2017**	**30**		
3.2	76	(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);	The City will inventory roadways within the City that are most likely to contribute pollutants to and from the City. The City will target the identified roadways and develop procudures to reduce pollutants per (Part I.D.5.c.(ii).(e)).			In-Process -	Fully Implemented -	**December 22, 2014**	**June 22, 2017**	**30**		
3.2	77	(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;	The City will review exising standard operating procedures for collection of used motor vehicle fluids and toxins used in City operations. Once a review is complete the City with develop or revise standard operating procedures in an effort to reduce pollutants per (Part I.D.5.c.(ii).(f)).	1) Develop SWPPP scope of work. 2) Secure funding. 3) Issue notice to proceed. 4) Implement SWPPP recommendations.		In-Process -	Fully Implemented - See Section 2 - PPGH Municipal Operations, Appendix F	**December 22, 2014**	**June 22, 2017**	**30**		
3.2	78	(g) Standard operating procedure for disposal of accumulated sediments, floatables, and debris;	The City will review exising standard operating procedures for disposal of accumulated sediment, floatables and debris. Once a review is complete the City with develop or revise standard operating procedures in an effort to reduce pollutants per (Part I.D.5.c.(ii).(g)).			In-Process -	Fully Implemented -	**December 22, 2014**	**June 22, 2017**	**30**		
3.2	79	(h) litter source control program, include targeted public awareness campaign;	The City will develop or revise a litter source control program including public awareness and targeting the City residents			In-Process -	Fully Implemented - See Section 4 - MRG SWQ Outcomes Report	**December 22, 2014**	**June 22, 2017**	**30**		

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3.2	80	(i) Develop or review and revise, as necessary, the criteria, procedures and schedule to evaluate existing flood control devices, structures and drainage ways to assess the potential of retrofitting to provide additional pollutant removal from stormwater. Implement routine review to ensure new and/or innovative practices are implemented where applicable.	The City will review existing flood control facilities and develop criteria, procedures and schedule to evaluating per (Part I.D.5.c.(ii).(i)).			In-Process -	In-Progress - See Section 2: Stormwater Outfall RFP	**December 22, 2014**	**June 22, 2017**	**30**		
3.2	81	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;	The City will review existing flood control facilities and the structures associated with each and develop a program to enhance inspection and maintenance of the structures per (Part I.D.5.c.(ii).(j)).			In-Process -	Fully Implemented -	**December 22, 2014**	**June 22, 2017**	**30**		
3.2	82	(k) Enhance the existing program to control the discharge of floatables and trash from the MS4 by implementing source control of floatables in industrial and commercial areas;	The City will review existing program for the control the discharge of floatables and trash from the City. The City will enahnce existing the existing program per (Part I.D.5.c.(ii).(k)).			In-Process -	Fully Implemented -	**December 22, 2014**	**June 22, 2017**	**30**		
3.2	83	(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;	The City will develop a program to track the retorfit evaluations conducted and include in the annual report as well as update the City SWMP with a schedule per (Part I.D.5.c.(ii).(l)).			In-Process -	Fully Implemented -	**December 22, 2014**	**June 22, 2017**	**30**		
3.2	84	(m) Flood management projects: review and revise, as necessary, technical criteria guidance documents and program for the assessment of water quality impacts and incorporation of water quality controls into future flood control projects. The criteria guidance document must include the following elements: A. Describe how new flood control projects are assessed for water quality impacts. B. Provide citations and descriptions of design standards that ensure water quality controls are incorporated in future flood control projects. C. Include method for permittees to update standards with new and/or innovative practices. D. Describe master planning and project planning procedures and design review procedures.	The City will review and revise technical criteria guidance documents and program per (Part I.D.5.c.(ii).(m)).	.		In-Process -	Fully Implemented -	**December 22, 2014**	**June 22, 2017**	**30**		
3.2	85	(n) Develop procedures to control the discharge of pollutants related to the storage and application of pesticides, herbicides, and fertilizers applied, by the permittee's employees or contractors, to public right-of-ways, parks, and other municipal property. The permittee must provide an updated description of the data monitoring system for all permittee departments utilizing pesticides, herbicides and fertilizers.	The City will develop or revise procedures to control the discharge of pollutants per (Part I.D.5.c.(ii).(n)), including providing an updated descripion of the data monitoring system for all City departments.	1) Develop SWPPP scope of work. 2) Secure funding. 3) Issue notice to proceed. 4) Implement SWPPP recommendations.		In-Process -	Fully Implemented - See Section 2 - PPGH Municipal Operations, Appendix F	**December 22, 2014**	**June 22, 2017**	**30**		
3.3	86	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).	Review and update inventory of municple facilities and operations.		Fully Implemented: Map complete.			**December 22, 2014**	**June 22, 2016**	**18**		
Not Included in NOI	87	Update the SWMP document and annual report as required in I.D.5.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) throughout 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.						**Update as necessary**				

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	88	**TABLE 5: Industrial and High Risk Runoff - Part I.D.5.d**										
4	89	As described in Part I.D.5.d, the permittees shall: (i) control through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by stormwater discharges associated with industrial activity and the quality of stormwater discharged from sites of industrial activity as defined in 40 CFR 122.26(b)(14)(i)-(ix) and (xi). If no such industrial activities are in a permittees jurisdiction, that permittee may certify that this program element does not apply.	Permit requires this element for Class A permittees only. CORR is a Class B permittee.	**Not Applicable**								

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	90	**TABLE 6: Illicit Discharges and Improper Disposal - Part I.D.5.e**										
See NOI Sections Below	91	As described in Part I.D.5.e.(i), the permittee shall develop, revise, implement, and enforce a program to detect and eliminate illicit discharges (as defined at 40 CFR 122.26(b)(2)) entering the MS4. Permittees previously covered under NMS000101 or NMR040000 must continue existing programs while updating those programs, as necessary, to comply with the requirements of this permit. The permittee must (see required items listed below):	CORR has developed a program to detect and eliminate illicit discharges. The program elements, as they relate to the permit requirements, are described in detail below. Fully Implemented - See SWMP Appendix G - IDDE Priority Reconnaissance and Ivestication Map.	• The CORR NPDES Project Manager will continue to review, revise, and implement the Illicit Discharge Detection and Elimination Program requirements. • CORR will update their current written procedure for this program element. • CORR is pursuing developing a cooperative program elements for this program.								Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division
5.1	92	Mapping as required in Part I.D.5.e.(i).(a). Develop, if not already completed, a storm sewer system map, showing the names and locations of all outfalls as well as the names and locations of all waters of the United States that receive discharge from those outfalls. Identify all discharges points into major drainage channels draining more than twenty (20) percent of the MS4 area;	CORR will update existing GIS based target area map. Identifying illicit discharge locations through layering of zoning, industry codes (NAICS), storm drain conveyance/ponds, and land use. Update discharge points into major drainage channels draining more than twenty (20) percent of the jurisdictional area. SEE APPENDIX E and G.	• CORR will continue to keep this maintenance map up-to-date for CORR facilities and other MS4 permittee facilities, as information is provided. Cooperation with other MS4s will continue related to this map.	Fully Implemented - See SWMP Appendix E and G.			**December 22, 2014**	**February 22, 2016**	**14**		Program Lead: NDPES Project Manager Implementation: Development Services Department Engineering, Recorder and GIS Section, and Consultant
5.2	93	Ordinance (or other control method) as required in Part I.D.5 .e.(i)(b).	CORR will review existing ordinances.	• As necessary, draft amendments to existing ordinance prohibiting non-stormwater discharges into the MS4.		In-Process -	Fully Implemented: On May 23, 2018 admendments to the Chapter 153 Erosion Control; Storm Drainage and Stormwater Quality Ordinance was adopted. See Section 153.30	**December 22, 2014**	**June 22, 2017**	**30**		Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division
5.3	94	Develop and implement a IDDE plan as required in Part I.D.5.e.(i).(c). The permittee must include the following elements in the plan: A. Procedures for locating priority areas likely to have illicit discharges including field test for selected pollutant indicators (ammonia, boron, chlorine, color, conductivity, detergents, E. coli, enterococci, total coliform, fluoride, hardness, pH, potassium, conductivity, surfactants), and visually screening outfalls during dry weather; B. Procedures for enforcement, including enforcement escalation procedures for recalcitrant or repeat offenders; C. Procedures for removing the source of the discharge; D. Procedures for program evaluation and assessment; and E. Procedures for coordination with adjacent municipalities and/or state, tribal, or federal regulatory agencies to address situations where investigations indicate the illicit discharge originates outside the MS4 jurisdiction.	CORR will continue to implement its IDDE program. CORR will continue to perform periodic visual inspections of outfalls to CORR-owned properties. CORR is pursuing developing a cooperative program for this Permit element.	• CORR will continue implementing the existing IDDE program. • CORR 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. • CORR will begin developing a written procedure for this program element. • CORR is pursuing developing a cooperative program for this program element with permittees located within CORR's jurisdiction.		In-Process -	Fully Implemented: On May 23, 2018 admendments to the Chapter 153 Erosion Control; Storm Drainage and Stormwater Quality Ordinance was adopted. See Section 153.30	**December 22, 2014**	**June 22, 2017**	**30**		Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division
5.4	95	Develop an education program as required in Part I.D.5.e.(i).(d). Develop an education program to promote, publicize, and facilitate public reporting of illicit connections or discharges, and distribution of outreach materials. The permittee shall inform public employees, businesses and the general public of hazards associated with illegal discharges and improper disposal of waste.	CORR will continue to participate in the MRGSQT and collaborate with the MS4 permittees to provide educational information regarding storm 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.	• CORR will continue its involvement with and financial support of BEMP and RiverXchange through the MRGSWQT. • CORR 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. • CORR will continue an in-house training program for its administrative, engineering and field employees regarding illegal discharges and improper disposal of waste.	The Middle Rio Grande Stormwater Quality Team has published outreach material "Keep the Rio Grand - Reduce Stormwater Pollution at Home!" CORR			**December 22, 2014**	**June 22, 2016**	**18**		Program Lead: NDPES Project Manager Implementation: Development Services Engineering Division and MRGSWQT

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5.5	96	Establish a hotline as required in Part I.D.5.e.(i).(e).	Fully Implemented - CORR encourages public involvement and participation by reporting all City Code violations. A) Reporting on the City website or mobile App. Report Rio Rancho is a free, intuitive online and smartphone application that allows residents and businesses of Rio Rancho to identify environmental concerns; and report them to the appropriate city department. B) Contrating City departments directly. Residents may contact departments directly to report environmental issues or request services. In both instances, each depart is responsible to respond to employee and public reports, and track concerns as required by the individual department protocols.	• CORR will continue to respond to the information received from this application integral to the IDDE program.	Fully Implemented: Report Rio Rancho App/Website has a NEW report type "Envirionmental Concern" which tracks Illicit Discharge of Waste, Surface Sewage/Failed Septic Systems and Water Waste.			**December 22, 2014**	**June 22, 2016**	**18**		Program Lead: NPDES Project Manager Implementation: Information Technologies / Public Works Records & GIS
5.6	97	Investigate suspected significant/severe illicit discharges as required in Part I.D.5.e.(i).(f). Investigate suspected significant/severe illicit discharges within forty-eight (48) hours of detection and all other discharges as soon as practicable; elimination of such discharges as expeditiously as possible; and, requirement of immediate cessation of illicit discharges upon confirmation of responsible parties. Illicit Discharge is defined in 40 CFR 122.26(b)(2)as "Illicit discharge means any discharge to a municipal separate storm sewer that is not composed entirely of stormwater except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities."	CORR will continue its policy of investigation of suspected significant/severe illicit discharges within forty-eight (48) hours of detection/reporting and all other discharges as soon as practicable. CORR plans to continue removing/treating such discharges as expeditiously as possible and requiring immediate cessation of illicit discharges upon confirmation of responsible parties. CORR will continue its procedures for illicit discharge investigation and use of its IDDE Incident Report Form. "Illicit discharge" also covers illegal or improper disposal or dumping of wastes into CORR facilities. For CORR, "illicit discharges" typically fall into two categories: (1) liquid discharge, or (2) solid discharge (dumped trash, debris, dirt/sediment, tires). Liquid discharges are considered urgent in order to quickly determine if they are significant/severe illicit discharges and are investigated within forty-eight (48) hours of detection. Solid discharge are investigated and identified for clean-up during watershed clean-up events.	• CORR will continue its policy of investigation of suspected significant/severe illicit discharges within 48 hours of detection and all other discharges as soon as practicable. • CORR will continue investigation and documentation of all applicable illicit discharge complaints (using IDDE Incident Report Form) received through the Report Rio Rancho website/app, as well as other complaints received directly by CORR staff through e-mail, phone, or observation. • CORR will continue membership and involvement in the cooperative MS4 Technical Advisory Group (MS4 TAG) which will facilitate cooperation and coordination with other MS4s in the Middle Rio Grande related to investigation of illicit discharges. • CORR will develop a written procedure for this program element and develop an electronic field form for gathering applicable information regarding reported IDDE.	Fully Implemented:		Fully Implemented/Revised: On May 23, 2018 admendments to the Chapter 153 Erosion Control; Storm Drainage and Stormwater Quality Ordinance was adopted. See Section 153.32	**December 22, 2014**	**June 22, 2016**	**18**		Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering
5.7	98	Review complaint records and develop a targeted source reduction program as required in Part I.D.5.e.(i).(g). Review complaint records for the last permit term and develop a targeted source reduction program for those illicit discharge /improper disposal incidents that have occurred more than twice in two (2) or more years from different locations.	CORR will continue its policy of reviewing complaint records. In addition, complaint records that are determined to be illicit discharges will be added to the CORR GIS database. 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), CORR's review of complaint records will include a focus on illicit discharges contributing bacteria to the MS4. CORR 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. CORR has in place a cooperative arrangement with the City of Rio Rancho for notification of illicit discharges.	• CORR will continue its policy of reviewing complaint records. This will include a focus on illicit discharges contributing bacteria to the MS4. • Annually, CORR 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. • CORR will continue adding illicit discharge complaint records for the permit term to the CORR GIS database to help identify sources and trends. • CORR continue developing a cooperative for this program element.				**December 22, 2014**	**December 22, 2015**	**12**		Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering
Not Included in NOI	99	As required in Part I.D.5.e.(ii), the permittee shall address the following categories of non-stormwater discharges or flows (e.g., illicit discharges) only if they are identified as significant contributors of pollutants to the MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(90)), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water. Note: Discharges or flows from fire fighting activities are excluded from the effective prohibitions against non-stormwater and need only be addressed where they are identified a significant sources of pollutants to water of the United States).	Any such discharge that is identified as a significant contributor of pollutants to the CORR MS4, or is causing or contributing to a water quality standards violation, will be addressed as an illicit discharge pursuant to Part I.D.5.e of the MS4 Permit. The Permit lists authorized non-stormwater discharges in Part I.D.5.e.(ii). Many of these authorized non-stormwater discharges are not applicable to CORR and none of these discharges are expected to be significant contributors of pollutants to the MS4.	• The CORR NPDES Project Manager will review this list annually to check that the categories of authorized non-stormwater discharges are still not considered significant contributors of pollutants to the MS4.								

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5.8	100	As required in Part I.D.5.e.(iii), the permittee must screen the entire jurisdiction at least once every five (5) years and high priority areas at least once every year. High priority areas include any area where there is ongoing evidence of illicit discharges or dumping, or where there are citizen complaints on more than five (5) separate events within twelve (12) months. The permittee must: (a) Include in its SWMP document a description of the means, methods, quality assurance and controls protocols, and schedule for successfully implementing the required screening, field monitoring, laboratory analysis, investigations, and analysis evaluation of data collected. (b) Comply with the dry weather screening program established in Table 6 and the monitoring requirements specified in Part III.A.2. (c) If applicable, implement the priority ranking system developed in previous permit term.	CORR will continue to make progress with its IDDE activities and program, working toward the permit deadlines described for this permit activity. Much of this effort may be in coordination with MS4 permittees CORR, Sandoval County, Village of Corrales, Town of Bernalillo and NMDOT. Part I.D.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. CORR has implemented a routine inspection and O&M program that includes both formal and informal inspections. These O&M inspections will be part of the IDDE screening program. 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 III.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. Part I.D.5.e.(ii).(c) - For CORR, the priority ranking is not applicable but, as part of cooperative program, CORR will follow the cooperative priority ranking.	• CORR will develop screening procedures, protocols and plan in years 1-3 for the Permit (Dec. 22, 2014 through Dec. 22, 2017). This may be done as a cooperative program. • CORR will implement the IDDE required screening activities for a minimum of 30% of the MS4 by the end of year 4 for this Permit (Dec. 22, 2018). • CORR will complete the IDDE required screening activities for 70% the of the MS4 system by the end of year 5 for this Permit (Dec. 22, 2019). • CORR 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. • CORR is pursuing developing a cooperative for this program element, including implementing the priority ranking system.				**See Measurable Goal Schedule**			Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering
5.9	101	Develop, update, and implement a Waste Collection Program as required in Part I.D.5.e.(iv).	CORR will continue to regularly collect waste within its rights-of-ways. CORR will work with Sandoval County, SSCAFCA, Town of Bernalillo, and Village of Corrales to expand the Hazardous Household Waste collection program.	• CORR will work with Sandoval County to increase the number of Household Hazardous Waste collection days hosted. • CORR will continue working with Sandoval County and SSCAFCA on watershed clean-up events		Fully Implemented: City of Rio Rancho/Sandoval County Recyling Center opened in 2011	**CITY OF RIO RANCHO/ SANDOVAL COUNTY RECYCLING CENTER CLOSURE:** The City of Rio Rancho and Sandoval County joint recycling center located off Iris Road closed on June 23, 2018. The facility officially opened on 2011 in response to citizen input. However, Rio Rancho residents are now being offered more extensive and convenient trash and recycling pickup services directly at their homes through Waste Management that create operating efficiencies and reduce the need for an alternate recycling facility. For more information about Waste Management's services for the City of Rio Rancho, please visit home.wm.com/rio-rancho.	**December 22, 2014**	**June 22, 2017**	**30**		Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering, Parks and Rec, KRRB, and Waste Management Services.
5.10	102	Develop, update and implement a Spill Prevention and Response program to prevent, contain, and respond to spills that may discharge into the MS4 as required in Part I.D.5.e.(v). The Spill Prevention and Response program shall include: (a) Where discharge of material resulting from a spill is necessary to prevent loss of life, personal injury, or severe property damage, the permittee(s) shall take, or ensure the party responsible for the spill takes, all reasonable steps to control or prevent any adverse effects to human health or the environment: and (b) The spill response program may include a combination of spill response actions by the permittee (and/or another public or private entity), and legal requirements for private entities within the permittees municipal jurisdiction.	CORR - All-Hazard Emergency Operations Plan, Annex Q - Hazardous Materials. The purpose of this annex is to provide a guide to manage a hazardous materials incident. Annex Q defines the responsibilities, duties and procedures to be followed by the Rio Rancho Police Department, Rio Rancho Fire/Rescue Department, other government agencies, and private entities regarding a hazardous materials incident occurring in Rio Rancho. The ultimate goal is to protect the population and environment from the adverse impacts of the hazardous materials incident. The terms "hazardous materials" in Annex Q includes explosive, flammable, combustible, corrosive, oxidizing and toxic materials that, when released in sufficient quantities, put the general public or environment in danger.	• CORR will continue to cooperate with overlapping jurisdictions for spill response. • CORR 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.	Fully Implemented: All-Hazard Emergency Operations Plan, Annex Q - Hazardous Materials.			**December 22, 2014**	**June 22, 2016**	**18**		Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering

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Not Included in NOI	103	Update the SWMP document and annual report as required in Part I.D.5.e.(iii), Part I.D.5.e.(vi), and Part I.D.5.e.(vii). 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.	CORR 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. CORR's NPDES Project Manager 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.	• As part of the Annual Report process each year, the NPDES Project Manager 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. • CORR will include a review of the screening completed and the data collected will be included in the Annual Report.				**Update as necessary**				Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering
5.11	104	Enhance the program to include requirements in Part I.D.5.e.(ix). The permittee may: (a) Divide the jurisdiction into assessment areas where monitoring at fewer locations still provides sufficient information; (b) Downgrade high priority areas after the area has been screened at least once and there are citizen complaints on no more than 5 separate events within a 12 month period; (c) Rely on a cooperative program with other MS4s for detection and elimination of illicit discharges and illegal dumping; (d) If cooperative program, required detection program frequencies may be based on the combined jurisdictional area rather than individual jurisdictional areas to reduce total number of screening locations; (e) After screening a non-high priority area once, adopt an "in response to complaints only" IDDE for that area (no more than 2 separate events within a 12 month period); (f) Enhance the program to utilize methodologies consistent with those described in "Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments."	Part I.D.5.e.(ix). CORR may enhance the program to include requirements in Part I.D.5.e.(ix) as needed	• CORR will document enhancements made with enhancement activities in the SWMP and Annual Report.				**Update as necessary**				Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering
	105	**TABLE 7: Control of Floatables Discharges - Part I.D.5.f**										
6.1	106	As required in Part I.D.5.f.(i), the permittee must develop, update, and implement a program to address and control floatables in discharges into the MS4. The floatables control program shall include source controls and, where necessary, structural controls. Permittees previously covered under NMS000101 or NMR040000 must continue existing programs while updating those programs, as necessary, to comply with the requirements of this permit. The permittee shall develop or update a schedule to implement as required in Part I.D.5.f.(i).(a).	CORR will continue to implement a program to address and control floatables in discharges into the MS4. CORR will continue to install stormwater quality features to control floatables, such as ported risers, trash racks, and screened inlets in both new construction and retrofits where appropriate. SEE APPENDIX H	• The CORR NPDES Project Manager will continue to review, revise, and implement a program to address and control floatables in discharges into the MS4. CORR will develop a written procedure for this program element. • CORR will continue membership and involvement in the cooperative MS4 Technical Advisory Group (MS4 TAG) which will facilitate cooperation and coordination with other MS4s in the Middle Rio Grande related control of floatables discharges. • CORR will continue utilizing the manual trash collection contracts. • CORR will continue cooperative watershed clean-up events with the City of Rio Rancho. • CORR is pursuing developing a cooperative program for this program element.	The majority of City ponds have existing water quality outlet structures that collect floatables.			**December 22, 2014**	**June 22, 2016**	**18**		Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering
6.2	107	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).	CORR will estimate the annual volume of floatables and trash removed from each control facility as well as to characterize the floatable type. The CORR SROW track the volume of floatables, sediment, trash, and debris removed from CORR facilities on an event basis. This tracking procedure includes the location of removal by facility and watershed.	• CORR will include in each annual report an estimate of the annual volume of floatables and trash removed from each control facility and characterize the floatable type. • CORR will continue to improve SROW staff tracking methods, allowing CORR to better and more easily determine the volume of floatables and sediment removed from each CORR facility.		Fully Implemented: IDDE Program includes a Trash Survey Form. Estimated volume of floatables and trash removal are calculated annually.		**December 22, 2014**	**June 22, 2017**	**30**		Program Lead: Streets and Right-of -Way Manager Implementation: Public Works Department
Not Included in NOI	108	Update the SWMP document and annual report as required in Part I.D.5.f.(ii) and Part I.D.5.f.(iii).	CORR's NPDES Project Manager 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 NPDES Project Manager 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.				**Update as necessary**				Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering

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	109	**TABLE 8: Public Education and Outreach on Stormwater Impacts - Part I.D.5.g**										
7.1	110	Develop, revise, implement, and maintain an education and outreach program as required in Part I.D.5.g.(i) and Part I.D.5.g.(ii). This comprehensive stormwater program should educate the community, employees, businesses, and the general public of hazards associated with the illegal discharges and improper disposal of waste and about the impact that stormwater discharges on local waterways, as well as the steps that the public can take to reduce pollutants in stormwater.	• Through involvement in the MRGSWQT, CORR will continue to collaborate with the MS4 permittees to improve upon the existing public education and outreach program. • The MRGSWQT has a local Public Relations consulting firm under contract to provide public education and outreach on stormwater impacts. Included in their scope is to provide an Outcomes Report to summarize the yearly outreach activities through different media and methods, target audiences and estimate of people reached. • Target pollutants include pet waste and trash/debris. These pollutants were chosen on the basis of studies conducted in the previous permit cycle. • Continue "Scoop the Poop" public outreach campaign at targeted CORR-owned facilities. • 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 Facebook page.	• CORR will contribute and participate in the MRGSWQT. • The MRGSWQT Outcomes Report will be submitted in the Annual Report. • CORR will continue to conduct education and outreach presentations to the community specific to CORR facilities and water quality.				**December 22, 2014**	**February 22, 2016**	**14**		Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering, KRRB, and MRGSWQT
7.2	111	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: (a) A description of a program to promote, publicize, facilitate public reporting of the presence of illicit discharges or water quality associated with discharges from MS4s; (b) A description of the education activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials; & (c) A description of the mechanism(s) utilized to comply with each of the elements required in Part I.D.5.g.(i) and Part I.D.5.g.(ii) and its corresponding measurable goal. (iv) The permittee must assess the overall success of the program, and document both direct and indirect measurements of program effectiveness in the Annual Report.	CORR's NPDES Project Manager 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.	• As part of the Annual Report process each year, the NPDES Project Manager 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.				**Update as necessary**				Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering
7.2	112	Enhance the program to include requirements in Part I.D.5.g.(v) through Part I.D.5.g.(viii). (v) Where necessary to comply with the MS4 Permit, the permittee should develop a program or modify/revise an existing education and outreach program to: (a) Promote, publicize, and facilitate the use of GI/LID/Sustainability practices; and (b) Include an integrated public education program regarding litter reduction, reduction in pesticide/herbicide use, recycling, and disposal (including yard waste, hazardous waste materials, and used motor vehicle fluids), and GI/ LID/ Sustainable practices (as allowed by the NM OSE). (vi) The permittee may collaborate or partner with other MS4 operators to maximize the program and cost effectiveness of the required outreach. (vii) The education and outreach program may use citizen hotlines as a low-cost strategy to engage the public in illicit discharge surveillance. (viii) The permittee may use stormwater educational materials provided by the State, Tribe, EPA, environmental, public interest or trade organizations, or other MS4s. The permittee may also integrate the education and outreach program with existing education and outreach programs in the MRG area.	CORR 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.	• If enhancement activities are implemented, CORR will annually document progress made with these program enhancement activities.				**Update as necessary**				Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering Division and MCM Members, KRRB,

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	113	**TABLE 9: Public Involvement and Participation - Part I.D.5.h**										
8.1	114	Develop (or update), implement, and maintain a public involvement and participation plan as required in Part I.D.5.h.(ii). This plan should provide opportunities for participation in the review, modification and implementation of the SWMP; develop and implement a process by which public comments to the plan are received and reviewed by the person(s) responsible for the SWMP; and make the SWMP available to the public and to the operator of any MS4 or Tribal authority receiving discharges from the MS4.	CORR will continue its Public Involvement and Participation program to encourage public involvement in the review, modification and implementation of the CORR SWMP, as required in Part I.D.5.h.(ii).	• Post the draft SWMP, any SWMP amendments or modifications, and draft Annual Reports to CORRs NPDES Stormwater Program www.rrnm.gov/index.aspx?nid=2184 website with an explanation of the public comment period and instruction 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. • A 30-day comment period will be allotted for SWMP document public review. • A 45-day comment period will be allotted for Annual Report document public review as required in Part III.B of the MS4 Permit. • Notice to the public will be done using CORRs NPDES Stormwater Program website.	Full Implemented: NOI, SWMP, Annual Report(s) are available to the public and to other operators via City of Rio Rancho Stormwater Webpage: https://rrnm.gov/2184/NPDES-Stormwater-Program			**December 22, 2014**	**December 22, 2015**	**12**		Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering Division
8.1	115	As required in Part I.D.5.h.(iii), the Public Involvement and Participation Plan shall include a comprehensive planning process which involves public participation and where necessary intergovernmental coordination. The permittee must include the following elements in the plan: (a) A detailed description of the general plan for informing the public of involvement and participation opportunities, including types of activities; target audiences; how interested parties may access the SWMP; and how the public was involved in development of the SWMP; (b) The development and implementation of at least one (1) assessment of public behavioral change following a public education and/or participation event; (c) A process to solicit involvement by environmental groups, environmental justice communities, civic organizations or other neighborhoods /organizations interested in water quality-related issues; and (d) An evaluation of opportunities to utilize volunteers for stormwater pollution prevention activities and awareness throughout the area.	As allowed in this Permit section's "Program Flexibility Elements", CORR, 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.	• CORR will contribute and participate in the MRGSWQT, which participates in public events and solicit public participation and feedback by way of surveys. • In targeted areas, CORR will continue to it's "Scoop the Poop" public outreach campaign.	The Middle Rio Grande Stormwater Quality Team Outcomes Report provides a summary of public education and outreach plan. See (Jul. 2015-Jun. 2016) Annual Report			**December 22, 2014**	**December 22, 2015**	**12**		Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering and MRGSWQT
8.2	116	Comply with State, Tribal, and local notice requirements when implementing a Public Involvement and Participation Program as required in Part I.D.5.h.(iv). Reporting notification requirements also in Part III.D.4.	CORR will provide hard copies of all MS4 compliance reporting documents to the NMED, Pueblos of Sandia and Isleta as required here and in Part III.D.4 of the MS4 Permit. The SWMP and Annual Reports are also available on CORRs NPDES Stormwater Program www.rrnm.gov/index.aspx?nid=2184 website.	• CORR will provide hard copies of relative MS4 compliance reporting documents to the NMED, Pueblos of Sandia and Isleta as required here and in Part III.D.4 of the MS4 Permit. • CORR will continue to post the SWMP and Annual Reports on CORRs NPDES Stormwater Program www.rrnm.gov/index.aspx?nid=2184 website.	CORR has provided NOI hard copy to NMED, Pueblo of Sandia, and Pueblo of Isleta. US EPA R6 via email. CORR NOI is posted on CORRs Stormwater Program website.			**December 22, 2014**	**February 22, 2016**	**14**		Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering Division
8.3	117	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", CORR, 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. CORR will continue to include water quality information for the public at events, including public meetings. CORR may have Spanish translations of public meeting announcements and data sheets.	• CORR 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, CORR may have Spanish-translations available 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.				**December 22, 2014**	**June 22, 2016**	**18**		Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering Division and MRGSWQT

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8.4	118	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 via the Internet and during normal business hours at the MS4 operator's main office for public inspection and copying consistent with any applicable federal, state, tribal, or local open records requirements. Upon a showing of significant public interest, the MS4 operator is encouraged to hold a public meeting (or include in the agenda of in a regularly scheduled city council meeting, etc.) on the NOI, SWMP, and Annual Reports.	CORR's NPDES Project Manager 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. CORR will provide public accessibility of the SWMP and Annual Reports online via the Internet on the following web sites: http://www.rrnm.gov/index.aspx?NID=2184 keeptheriograndorg	• As part of the Annual Report process each year, the Administrative Services 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. • CORR will provide public accessibility of the SWMP document and most recent Annual Report online via the Internet (www.rrnm.gov/index.aspx?NID=2184) and during normal business hours at the CORR office. CORR is located at 3200 Civic Center Circle NE, Rio Rancho, NM 87144. The phone number is 505-891-5045.				**Update as necessary**				Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering Division
8.5	119	Enhance the program to include requirements in Part I.D.5.h.(ix).	CORR 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 Boy or Girl Scouts of America, RiverXchange, and the Bosque Ecosystem Monitoring Program (BEMP).	• CORR will annually document progress made with these program enhancement activities. CORR and the MRGSWQT will continue to review, update, and enhance public involvement and participation programs.	MRGQST has continued its educational partmerships with BEMP and RiverXchange. Total budget spent on both programs = $14,692.50. See (Jul. 2015-Jun. 2016) Annual Report.			**Update as necessary**				Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering Division

NOI Section	ID	Permit Activity Description	Proposed Plan	Measurable Goal	Status of Implementation and Performance Assessment Permit Year July 2015 to June 2016 (Permit Year 1)	Status of Implementation and Performance Assessment Permit Year July 2016 to June 2017 (Permit Year 2)	Status of Implementation and Performance Assessment Permit Year July 2017 to June 2018 (Permit Year 3)	Permit Effective Date	Cooperative Implementation Schedule	Cooperative Permit Required Implementation Schedule (Months)	Milestone Implementation Schedule	Responsible Personnel
	120	**Part III - Monitoring, Assessment and Reporting Requirements**										
	121	**TABLE 10: Wet Weather Monitoring Program - Part III.A.1**										
See NOI Sections Below	122	According to the requirements in Part III.A.1., The permittee must develop, in consultation with NMED and EPA (and affected Tribes if monitoring locations would be located on Tribal lands), and implement a comprehensive monitoring and assessment program. The permittees shall conduct wet weather monitoring to gather information on the response of receiving waters to wet weather discharges from the MS4 during both wet season (July 1 through October 31) and dry Season (November 1 through June 30). Wet Weather Monitoring shall be conducted at outfalls, internal sampling stations, and/or in-stream monitoring locations at each water of the US that runs in each entity or entities' jurisdiction(s).	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. Details for this program are provided in the SWMP sections below.	The program details and measurable goals are described below. The monitoring program will be conducted according to the approved Cooperative Monitoring Plan (submitted to EPA on June 20, 2016).								Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering Division and MCM Members
IV	123	Part III.A.3.1.b. Option B: Cooperative Monitoring Program Develop a cooperative wet weather monitoring program with other permittees in the Middle Rio Grande Watershed. The program will monitor waters coming into the watershed (upstream) and leaving the watershed (downstream). The program must include sampling for TSS, TDS, COD, BOD5, DO, oil and grease, E. coli, pH, total kjeldahl nitrogen, nitrate plus nitrite, dissolved phosphorus, total ammonia plus organic nitrogen, total phosphorus, PCBs and Gross alpha. Monitoring of temperature shall be also conducted at outfalls and/or Rio Grande monitoring locations. Permittees must include additional parameters from monitoring conducted under permits NMS000101, 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.	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 in the events 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.	• The monitoring program will follow the permit requirements for parameters tested (TSS, TDS, COD, BOD_5, DO, oil and grease, E. coli, pH, total kjeldahl nitrogen, nitrate plus nitrite, dissolved phosphorus, total ammonia plus organic nitrogen, total phosphorus, PCBs, 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 Cooperative Monitoring Plan (submitted to EPA on June 20, 2016).								Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering Division and MCM Members
IV	124	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.	CORR submitted its NOI in compliance with the permit requirements and schedule. CORR will participate in Option B - cooperative monitoring program.	Operation B - Cooperative Monitoring Program preference was submitted the CORR NOI on June 19, 2015. See SWMP				**December 22, 2014**	**June 22, 2015**	**6**		Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering Division
Not Included in NOI	125	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.	CORR has developed, with its cooperative partners, a proposed monitoring scheme for Compliance Monitoring and has submitted this to EPA for approval (submitted to EPA on December 18, 2015).	• The monitoring program will be conducted according to the approved proposed monitoring scheme for Compliance Monitoring (submitted to EPA on December 18, 2015).	Fully Implemented: Proposed Monitoring Plan submitted on Dec. 18, 2015. See (Jul. 2015-Jun. 2016) Annual Report.			**December 22, 2014**	**December 22, 2015**	**12**		Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering Division and MCM Members

NOI Section	ID	Permit Activity Description	Proposed Plan	Measurable Goal	Status of Implementation and Performance Assessment Permit Year July 2015 to June 2016 (Permit Year 1)	Status of Implementation and Performance Assessment Permit Year July 2016 to June 2017 (Permit Year 2)	Status of Implementation and Performance Assessment Permit Year July 2017 to June 2018 (Permit Year 3)	Permit Effective Date	Cooperative Implementation Schedule	Cooperative Permit Required Implementation Schedule (Months)	Milestone Implementation Schedule	Responsible Personnel
Not Included in NOI	126	Submit certification that all wet weather monitoring sites are operational and begin sampling.	Once CORR, and its cooperative partners, receive approval from NMED and EPA on the proposed monitoring scheme for Compliance Monitoring (submitted to EPA on December 18, 2015), the cooperative will be able to move forward with ensuring the monitoring sites are ready to sample according to the monitoring plan. CORR is in the process of defining a cooperative program for the compliance monitoring. CORR, with its cooperative partners (still to be determined), will submit certification to EPA that all wet weather monitoring sites are operational and will begin sampling, according to the Permit requirements.	• CORR, with its cooperative partners (still to be determined), will submit certification to EPA that all wet weather compliance monitoring sites are operational and will begin sampling, according to the Permit requirements.	In-Process -	Fully Implemented - Wet Weather Monitoring Program is operational and ready for sampling. See (Jul. 2015-Jun. 2016) Annual Report.		**December 22, 2014**	**June 22, 2016**	**18**		Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering Division and MCM Members
Not Included in NOI	127	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.	CORR's NPDES Project Manager will review the program requirements listed in Part II.A.1, 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 Wet Weather Monitoring results obtained from July 1st to June 30th will be submitted in each Annual Report on Discharge Monitoring Report (DMR) forms as required in Part III.D.1. CORR will submit "after action" reports on sample events with the Annual Report.	• As part of the Annual Report process each year, the NPDES Project Manager will review the program requirements listed in Part III.A.1, for the above-mentioned SWMP elements, and assess the overall success of the program and document the program effectiveness in the Annual Report. • The Wet Weather Monitoring results obtained from July 1st to June 30th will be submitted in each Annual Report on Discharge Monitoring Report (DMR) forms as required in Part III.D.1.	EPA Form 3320-1 DMR submitted with (Jul. 2015-Jun. 2016) Annual Report. No sample collected. Sampling plan for the Middle Rio Grande Collaborative Monitoring Group was was not approved by EPA until 06/22/16. No storm events occurred between 06/22/2016 and 06/30/2016.	CMC Wet Season, Wet Weather Stormwater Monitoring Data Verification, Analysis Results Database, and Reporting FY 2017 Wet Season (July 1 to October 31, 2016) - March 6, 2017 - Memo - 393 pages.	CMC Wet Season, Wet Weather Stormwater Monitoring Data Verification, Analysis Results Database, and Reporting FY 2018 Wet Season (July 1 , 2017 to October 31, 2017) - Feburary 20, 2018. See 255 page Memorandum in Annual Report.	**Annually**				Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering Division

NOI Section	ID	Permit Activity Description	Proposed Plan	Measurable Goal	Status of Implementation and Performance Assessment Permit Year July 2015 to June 2016 (Permit Year 1)	Status of Implementation and Performance Assessment Permit Year July 2016 to June 2017 (Permit Year 2)	Status of Implementation and Performance Assessment Permit Year July 2017 to June 2018 (Permit Year 3)	Permit Effective Date	Cooperative Implementation Schedule	Cooperative Permit Required Implementation Schedule (Months)	Milestone Implementation Schedule	Responsible Personnel
	128	**Dry Weather Discharge Screening of MS4 - Part III.A.2**										
Not Included in NOI	129	According to the requirements in Part III.A.2., Each permittee shall identify, investigate, and address areas within its jurisdiction that may be contributing excessive levels of pollutants to the Municipal Separate Storm Sewer System as a result of dry weather discharges (i.e., discharges from separate storm sewers that occur without the direct influence of runoff from storm events, e.g. illicit discharges, allowable non-stormwater, groundwater infiltration, etc.). Due to the arid and semi-arid conditions of the area, the dry weather discharges screening program may be carried out during both wet season (July I through October 31) and dry season (November 1 through June 30). Results of the assessment shall be provided in each annual report.	The program details and measurable goals are described below and In Table 6 - Illicit Discharge and Improper Disposal.	The program details and measurable goals are described below and in Table 6 - Illicit Discharge and Improper Disposal.				**Screen the entire jurisdiction at least once (1) every five (5) years and high priority areas at least once (1) a year. ***High priority areas include areas where there are ongoing evidence of ID, or where there are citizen complaints on more that five (5) separate events within twelve (12) months***			Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering Division
Not Included in NOI	130	This program may be coordinated with the illicit discharge detection and elimination program required in Part I.D.5.e. The dry weather screening program shall be described in the SWMP and comply with the schedules contained in Part I.D.5.e.(iii). The permittee shall: a) Include sufficient screening points to adequately assess pollutant levels from all areas of the MS4. b) Screen for, at a minimum, BOD_5, sediment or a parameter addressing sediment (e.g., TSS or turbidity), E. coli, Oil and Grease, nutrients, any pollutant that has been identified as cause of impairment of a waterbody receiving discharges from that portion of the MS4, including temperature. c) Specify the sampling and non-sampling techniques to be issued for initial screening and follow-up purposes. d) Perform monitoring only when an antecedent dry period of at least 72 hours after a rain event greater than 0.1 inch in magnitude is satisfied. Monitoring methodology shall consist of collecting a minimum of 4 grab samples spaced at a minimum interval of 15 minutes each.	There are no perennial streams in the Albuquerque area that contribute to the Rio Grande. As such, the dry weather screening program serves a dual purpose as an illicit discharge screening analysis. CORR will continue with the existing Dry Weather Screening program in place while working cooperatively to develop illicit discharge screening procedures and plan, as required in part I.D.5.e.(iii). 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 BOD5, 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.	• Visual screening results will be included in CORR's Annual Report when provided. • CORR 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). • CORR 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.	Dry Weather Visual Screening was conducted at seven (7) direct outfalls (High Priority) on Feb. 10, 2016. No discharges observed during screening. See IDDE Program Binder or Annual Report.	Dry Weather Visual Screening was conducted at seven (7) direct outfalls (High Priority) on Jun. 16, 2017. No discharges observed during screening. See IDDE Program Binder or Annual Report.	Dry Weather Visual Screening was conducted at seven (7) direct outfalls (High Priority) on Jun. 16, 2017. No discharges observed during screening. See IDDE Program Binder or Annual Report.					Program Lead: NPDES Project Manager Implementation: Development Services Department Engineering Division

NOI Section	ID	Permit Activity Description	Proposed Plan	Measurable Goal	Status of Implementation and Performance Assessment Permit Year July 2015 to June 2016 (Permit Year 1)	Status of Implementation and Performance Assessment Permit Year July 2016 to June 2017 (Permit Year 2)	Status of Implementation and Performance Assessment Permit Year July 2017 to June 2018 (Permit Year 3)	Permit Effective Date	Cooperative Implementation Schedule	Cooperative Permit Required Implementation Schedule (Months)	Milestone Implementation Schedule	Responsible Personnel
	131	**Floatables Monitoring - Part III.A.3**										
Not Included in NOI	132	According to the requirements in Part III.A.3., The permittees shall establish locations for monitoring/assessing floatable material in discharges to and/or from their MS4. A cooperative monitoring program may be established in partnership with other MS4s to monitor and assess floatable material in discharges to and/or from a joint jurisdictional area or watershed basis. Floatable material shall be monitored at least twice per year at priority locations and at minimum of one (1) stations (Class B Permittee). The amount of collected material shall be estimated in cubic yards. a) Identify one (1) station to monitor and assess floatable material type.	CORR will continue to monitor floatable material and the amount collected in participation with the MS4 co-permittees. CORR will monitor floatable material in the flood pool of the Tract 17 pond in the City of Rio Rancho. This will be done in conjunction with the requirements in TABLE 7: Control of Floatables Discharges - Part I.D.5.f. CORR monitors and tracks collection of floatables at XX CORR facilities.	• CORR will continue to monitor floatable material and estimate the amount collected at least twice per year at a minimum of 1 station. • All floatable material will be taken to a local landfill for disposal.				**Monitor at least (1) station at least twice per year at priority locations.**				
	133	**Industrial and High Risk Runoff Monitoring - Part III.A.4**										
4	134	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 permittees jurisdiction, the permittee must certify that this program element does not apply).	Activity removed from CORR's SWMP. This permit item is applicable to Class A permittees only.	**Not Applicable**								

Section 2:

SWMP Revisions

UPDATE – Public Education and Outreach on Storm Water Impacts

Weston Solutions, Inc.
3840 Commons Ave. NE
Albuquerque, NM 87109
505-837-6520 Fax 505-837-6550
www.westonsolutions.com

May 15, 2018

Mr. Xavier Pettes
NPDES Project Manager
City of Rio Rancho
3200 Civic Center Circle
Rio Rancho, NM 87144

RE: NPDES AND MS4 ENGINEERING SUPPORT SERVICES SCOPE OF WORK AND COST ESTIMATE FOR GOOD HOUSEKEEPING EVALUATION FOR CITY OF RIO RANCHO BUILDING AND FLEET MAINTENANCE DIVISION STORM WATER POLLUTION PREVENTION PLAN (SWPPP) DRAFTING AND TRAINING **REVISED**

Dear Mr. Pettes:

Weston Solutions, Inc. (Weston) is pleased to provide the City of Rio Rancho (City) with this scope of work for MS4 permit support services related to Municipal Good Housekeeping activities. As presented below, Weston will provide environmental compliance services for the Building and Fleet Maintenance yard located in Rio Rancho. Activities will include inspection of the facility, preparation of one Storm Water Pollution Prevention Plan (SWPPP) and a training session for the facility stormwater management team. These will be compliant with the requirements of the Middle Rio Grande Watershed Based Municipal Separate Storm Sewer (MRG WBP MS4) Permit issued December 22, 2014.

SCOPE OF WORK

Building and Fleet Maintenance SWPPP
The following tasks describe each compliance activity in further detail:

- Task 1: Initial SWPPP Good Housekeeping Inspection and Existing Operations Review
- Task 2: Compliance Memo and Recommendations
- Task 3: Drafting SWPPP for Building and Fleet Maintenance yard
- Task 4: SWPPP Training

Task 1: Initial SWPPP Good Housekeeping Inspection

Weston will perform an initial site visit to the Building and Fleet Maintenance yard and conduct interviews with the facility and department personnel to obtain up-to-date information relevant to determining the need for a SWPPP. This information will include, but is not limited to:

- Facility description and contact info
- Designating a Storm Water Pollution Prevention Team (PPT)
- Maps and Site Plans
- Potential storm water pollution sources at each site location
- Industrial activities that occur at each location if any
- Potential locations for spills and leaks
- Impacted water discharge history
- Any non-storm water discharge documentation
- Salt storage at any given facility
- Hazardous products that are currently stored on site and existing storage capacity
- Information on training programs, maps, spill response plans and existing operating procedures

COST

The Weston team will perform the above work and bill the City on a Time & Materials basis for a total budget of $13,026.95 including NMGRT. Fee breakdown is as follows and labor has been broken down to reflect location of work and the applicable NMGRT rate and cost.

Weston Office Labor Effort for all tasks:	$10,490.00
Albuquerque NMGRT for Office Labor (7.5%)	$ 786.75
Rio Rancho Field Activities – Inspections/Training	$ 1,600.00
Rio Rancho NMGRT for Field Labor (7.4375%)	$ 119.00
Personal Vehicle Mileage @ $0.52/mile	$ 31.20
TOTAL COST INCLUDING NMGRT	$13,026.95

Upon receiving notice to proceed, Weston expects to complete this work on the following schedule:

Item	Deliverable	Schedule
Initial SWPPP Inspection	Copy of inspection form	14 calendar days from NTP
Compliance Memos and Recommendations	Compliance Memo	14 calendar days from Inspection date
Draft SWPPP	Electronic (.pdf) delivery of draft SWPPP	30 calendar days from responses to Compliance Memo
Respond to Comments and Finalize SWPPP	2x hard copies and 1x DVD of final SWPPP	14 calendar days after receiving comments
SWPPP Training	PowerPoint and Quiz	Within 3 months of delivering final SWPPP

ASSUMPTIONS

The assumptions used in developing this scope and cost estimate are as follows:

- A representative of the City will escort the Weston Solutions team during the facility site visits and inspections.
- Development of the SWPPP does not include preparation of Standard Operating Procedures. Development of these documents can be completed with authorization of additional scope and funding.
- No additional follow up or corrective action facility inspections are included in this scope of work.

Weston appreciates the opportunity to provide professional consulting services to you, and we look forward to assisting you with this project. Please contact me at (505) 837-6566 or by email at Brad.Sumrall@WestonSolutions.com if you have any questions or need additional information.

Sincerely,
WESTON SOLUTIONS, INC.

L. Brad Sumrall, PE
Albuquerque Operations Manager

Copy

CITY OF RIO RANCHO

PURCHASE ORDER

PAGE: 1

P.O. NO.: 181454

DATE: 05/21/18

Send Invoice to:
FINANCIAL SERVICES
3200 CIVIC CENTER CIRCLE NE
RIO RANCHO, NEW MEXICO 87144
Phone (505) 891-5010
Fax (505) 891-5762

TO: WESTON SOLUTIONS INC
PO BOX 405163
ATLANTA, GA 30384-5163

SHIP TO: City of Rio Rancho-Purchasing
DEVELOPMENT SERVICES
3200 CIVIC CENTER CIRCLE
NE, SUITE 130
RIO RANCHO, NM 87144

VENDOR NO.
5825

NOTES:
1. Federal Tax I.D. Number is required for payment.
2. If unable to fill at prices shown, or meet delivery day, please advise immediately.
3. All items subject to terms and conditions on reverse unless a contract number is referenced below.

DELIVER BY	SHIP VIA	F.O.B.	TERMS
04/30/18			NET

CONFIRM BY	CONFIRM TO	REQUISITIONED BY
STEPHEN MITCHELL		ANTHONY CARAVELLA

FREIGHT	CONTRACT NO.	ACCOUNT NO.	PROJECT	REQ. NO.	REQ. DATE
		10150304343207		68780	04/30/18

LINE NO.	QUANTITY	UOM	ITEM NO. AND DESCRIPTION	UNIT COST	EXTENDED COST
	10490.00	DL	PROFESSIONAL SERVICES FOR NPDES & MS4 COMPLIANCE WESTON OFFICE LABOR EFFORT FOR ALL TASK TO PROVIDE GOOD HOUSEKEEPING EVALUATION FOR BUILDING & FLEET MAINTENANCE YARDS STORMWATER POLLUTION PREVENTION PLAN (SWPP)	1.0000	10490.00
2	786.75	DL	ABQ NMGRT FOR LABOR 7.5%	1.0000	786.75
3	1600.00	DL	RIO RANCHO FIELS ACTIVITIES-INSPECTIONS/TRAINING	1.0000	1600.00
4	119.00	DL	RIO RANCHO NMGRT FOR FIELD LABOR	1.0000	119.00
5	31.20	DL	PERSONAL VEHICLE MILEAGE @ .52/MILE	1.0000	31.20
				SUB-TOTAL	13026.95
				TOTAL	13026.95

REMARKS:
PROFESSIONAL SERVICES SHALL NOT EXCEED $60,000.00
PRICING PER QUOTE DATED 5/15/18 FROM VENDOR
NO CHANGE ORDERS SHALL BE AUTHORIZED UNLESS APPROVED PRIOR BY THE CITY OF RIO RANCHO

Authorized By:

Purchasing Department
Tax Exempt No. 01-142626-008

* CONTINUED *

RioRancho
City of Vision

City of Rio Rancho
3200 Civic Center Circle NE
Rio Rancho, New Mexico 87144-4501
(505) 981-5005 • FAX (505) 981-5203

May 23, 2018

L. Brad Sumrall, P.E.
Weston Solutions, Inc.
3840 Commons Ave., NE
Albuquerque, New Mexico 87109

RE: Notice to Proceed – NPDES & MS4 Compliance to Provide Good Housekeeping Evaluation for Building & Fleet Maintenance Yards Stormwater Pollution Prevention Plan (SWPPP)

Dear Mr. Sumrall:

The purpose of this letter is to authorize your firm to begin engineering and scientific consulting services in support of the City of Rio Rancho's MS4 permit compliance requirements.

Services shall be performed based on Weston Solutions Inc. May 15, 2018 Scope of Work (Revised). This Notice to Proceed applies to work of value not to exceed the amounts listed in the attached City of Rio Rancho Purchase Order (No. 181454). It will be the responsibility of the Weston Solutions, Inc. to obtain written approval from the City NPDES Project Manager, Xavier Pettes prior to proceeding with work in excess of this amount.

Should you have additional questions, please feel free to contact me by phone at (505) 891-5045 or by email at xpettes@rrnm.gov.

Sincerely,

PETTES.EUGENE.XAVIER.1156001194

Digitally signed by PETTES.EUGENE.XAVIER.1156001194
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=PETTES.EUGENE.XAVIER.1156001194
Date: 2018.05.23 11:04:06 -06'00'

Xavier Pettes
NPDES Project Manager
Development Services Department
Engineering Division

Enclosed:
City of Rio Rancho Purchase Order (No. 181454)
Scope of Work (Revised) 5/15/2018

Cc:
Jamie Marrufo, DPW Engineering Section Manager
Jason Gallegos, Streets & ROW/Building Maintenance Manager
Angie Gallegos, Fleet Maintenance Manager

City of Vision

Storm Water Pollution Prevention Plan

Rio Rancho

Building and Fleet Maintenance

Building Maintenance Yard
1017 29th Street Southeast
Rio Rancho, NM 87124

Fleet Maintenance Yard
1017 29th Street Southeast
Rio Rancho, NM 87124

Weston Project number: 15392.002.002.3000

WESTON SOLUTIONS

CONTENTS

LIST OF TABLES

UPDATE – Pollution Prevention/Good Housekeeping for Municipal Operations

Weston Solutions, Inc.
3840 Commons Ave. NE
Albuquerque, NM 87109
505-837-6520 Fax 505-837-6550
www.westonsolutions.com

October 6, 2017

Mr. Xavier Pettes
NPDES Project Manager
City of Rio Rancho
3200 Civic Center Circle
Rio Rancho, NM 87144

RE: NPDES AND MS4 ENGINEERING SUPPORT SERVICES SCOPE OF WORK AND COST ESTIMATE FOR GOOD HOUSEKEEPING EVALUATION FOR CITY OF RIO RANCHO STREETS & RIGHT OF WAY DIVISION STORM WATER POLLUTION PREVENTION PLAN (SWPPP) DRAFTING AND TRAINING.

Dear Mr. Pettes:

Weston Solutions, Inc. (Weston) is pleased to provide the City of Rio Rancho (City) with this scope of work for MS4 permit support services related to Municipal Good Housekeeping activities. As presented below, Weston will provide environmental compliance services for the Streets and Right of Way (ROW) yards located at 2704 Iris Road NE, 2016 Idalia Rd NE (Kim Road Yard), Acano Circle NE ROW Stockpiles (SW quadrant of Northern Blvd NE and Unser Blvd NE), and 2301 Campus Blvd NE backfill stockpile in Rio Rancho. Activities will include inspection of yards, preparation of one (1) Storm Water Pollution Prevention Plan (SWPPP) and a training session for the facility stormwater management team. These will be compliant with the requirements of the Middle Rio Grande Watershed Based Municipal Separate Storm Sewer (MRG WBP MS4) Permit issued December 22, 2014.

SCOPE OF WORK

Streets and ROW SWPPP

The following tasks describe each compliance activity in further detail:

- Task 1: Initial SWPPP Good Housekeeping Inspection and Existing Operations Review
- Task 2: Compliance Memo and Recommendations
- Task 3: Drafting SWPPP for Streets and ROW
- Task 4: SWPPP Training

Task 1: Initial SWPPP Good Housekeeping Inspection

Weston will perform an initial site visit to the Streets and ROW division yards and conduct interviews with the Department of Streets personnel to obtain up-to-date information relevant to determining the need for a SWPPP. This information includes, but is not limited to:

- Facility descriptions and contact info
- Designating a Storm Water Pollution Prevention Team (PPT)
- Maps and Site Plans
- Potential storm water pollution sources at each site location
- Industrial activities that occur at each location if any
- Potential locations for spills and leaks
- Obtain impacted water discharge history
- Any non-storm water discharge documentation
- Salt storage at any given facility
- Hazardous products that are currently stored on site and existing storage capacity

- Gather information on training programs, maps, spill response plans and existing operating procedures
- Established spill response procedures and emergency contractors
- Obtain spill/leak history
- Ascertain site drainage and receiving waters
- Verify facility map details and note any possible changes

Task 2: Compliance Memo and Recommendations
Upon completion of the site visit, Weston will provide a summary of findings and actions necessary to achieve compliance with the MS4 permit. The Streets staff can use this information as a basis to modify operations or equipment at the facility prior to the completion of any necessary SWPPP.

Task 3: Drafting SWPPP for Streets and ROW
Weston will develop Best Management Practices (BMPs) designed to specifically address the activities at each location that are potential sources of storm water pollution. Weston will also address the following Storm Water Control Measures with suggestions on improvement:

- Overall good housekeeping
- Minimizing exposure
- Spill prevention and response
- Erosion and sediment controls
- Management of impacted runoff
- Salt storage piles or any piles containing salt
- Employee Training
- Non-storm water discharges
- Waste, garbage and floatable debris management
- Dust generation and vehicle tracking of industrial materials

Weston will develop one (1) comprehensive "Good Housekeeping" SWPPP for Streets and ROW which is compliant with the MRG WBP MS4 permit. Weston will transmit an electronic draft of the SWPPP for the City's review and comment. Weston will incorporate the City's comments or contact the reviewer if further discussion is needed. Once all comments/issues are resolved, Weston will submit two (2) hard copies of the final SWPPP and one (1) CD containing the electronic files for all related documents. The final hard copies will be delivered in a 3-ring binder to facilitate the collection and organization of required facility documentation by the City staff until the next plan revision.

Task 4: SWPPP Training
Under the MS4 permit, storm water pollution prevention training for permitted City facilities must occur at least annually. Weston will plan, coordinate, and conduct a single training session for facility supervisors and other appropriate City staff. The training session will be provided in a "Train the Trainer" format to prepare one or more individuals representing each facility (preferably Pollution Prevention Team Members) to provide training to staff within their organization. The training will address the following:

- Overall goals of storm water pollution prevention
- Elements of the SWPPP
- Applicable non-structural BMPs
- Materials management
- Spill response procedures

We will also prepare a PowerPoint presentation and experienced staff will deliver the training. The PowerPoint used for the training will be provided to each participant on CD for use in training operational staff. This will facilitate training for small groups and individuals including new employees or temporary contractors.

COST

The Weston team will perform the above work and bill the City on a Time & Materials basis for a total budget of $15,114.25 including NMGRT.

Subtask	Labor	Expenses	Total Estimated Cost*
Task 1: Initial SWPPP and SPCC Good Housekeeping Inspection	$3,380	$15.00	$3,395.00
Task.2: Compliance Memos and Recommendations	$2,280		$2,280.00
Task 3: SWPPP for Streets and ROW	$6,000		$6,000.00
Task 4: SWPPP Training	$2,380	$15.00	$2,395.00
Total, Exclusive of NMGRT			$14,070.00
NMGRT (7.4375% on Labor Cost))			$1,044.23
GRAND TOTAL			15,114.23

Upon receiving notice to proceed, Weston expects to complete this work on the following schedule:

Item	Deliverable	Schedule
Initial SWPPP Inspection	Copy of inspection form	14 calendar days from NTP
Compliance Memos and Recommendations	Compliance Memo	14 calendar dDays from Inspection date
Draft SWPPP	Electronic (.pdf) delivery of draft SWPPP	30 calendar days from delivery of Compliance Memo
Respond to Comments and Finalize SWPPP	2x hard copies and 1x DVD of final SWPPP	14 calendar days after receiving comments
SWPPP Training	PowerPoint and Quiz	Within 3 months of delivering final SWPPP

ASSUMPTIONS

The assumptions used in developing this scope and cost estimate are as follows:

- A representative of the City will escort the Weston Solutions team during the facility site visits and inspections.
- Development of the SWPPP does not include preparation of Standard Operating Procedures. Development of these documents can be completed with authorization of additional scope and funding.
- No additional follow up or corrective action facility inspections are included in this scope of work.

Weston appreciates the opportunity to provide professional consulting services to you, and we look forward to assisting you with this project. Please contact me at (505) 837-6566 or by email at Brad.Sumrall@WestonSolutions.com if you have any questions or need additional information.

Sincerely,
WESTON SOLUTIONS, INC.

L. Brad Sumrall, PE
Albuquerque Operations Manager

RioRancho

City of Vision

Development Services Department
Engineering Division
3200 Civic Center Circle NE
Rio Rancho, NM 87144

October 10, 2017

Mr. L. Brad Sumrall, P.E.
Weston Solutions Inc.
3840 Commons Ave. NE
Albuquerque, NM 87109

RE: **Notice to Proceed – NPDES & MS4 compliance to provide good housekeeping evaluation for streets & right-of-way division SWPPP**

Dear Mr. Sumrall:

The purpose of this letter is to authorize your firm to begin all engineering services for the above-mentioned project.

Services shall be performed based on Weston Solutions October 6, 2017 Task Order. This Notice to Proceed applies to work of value not to exceed the amounts listed in the attached City of Rio Rancho Purchase Order (180798). It will be the responsibility of the Weston Solutions, Inc. to obtain written approval from the City Engineering Division Manager, David Serrano prior to proceeding with work in excess of this amount.

Please feel free to contact me with questions or comments by phone at 505-891-5059 or by e-mail at dserrano@rrnm.gov.

Sincerely,

David D. Serrano, P.E.
Engineering Division Manager

Enclosed:
City of Rio Rancho Purchase Order (No. 180798)

cc: Jamie Marrufo, DPW Engineering Section Manager

CITY OF RIO RANCHO

PURCHASE ORDER

PAGE: 1

P.O NO.: 180798

DATE: 10/06/17

Send Invoice to:
FINANCIAL SERVICES
3200 CIVIC CENTER CIRCLE NE
RIO RANCHO, NEW MEXICO 87144
Phone (505) 891-5010
Fax (505) 891-5762

TO: WESTON SOLUTIONS INC
PO BOX 405163
ATLANTA, GA 30384-5163

SHIP TO: City of Rio Rancho-Purchasing
DEVELOPMENT SERVICES
3200 CIVIC CENTER CIRCLE
NE, SUITE 130
RIO RANCHO, NM 87144

VENDOR NO.
5825

NOTES:
1. Federal Tax I.D. Number is required for payment.
2. If unable to fill at prices shown, or meet delivery day, please advise immediately.
3. All items subject to terms and conditions on reverse unless a contract number is referenced below.

DELIVER BY	SHIP VIA	F.O.B.	TERMS
10/13/17			NET

CONFIRM BY	CONFIRM TO	REQUISITIONED BY
STEPHEN MITCHELL		ANTHONY CARAVELLA

FREIGHT	CONTRACT NO.	ACCOUNT NO	PROJECT	REQ. NO.	REQ. DATE
		101503043432O7		67734	10/06/17

LINE NO	QUANTITY	UOM	ITEM NO AND DESCRIPTION	UNIT COST	EXTENDED COST
1	14070.00	DL	PROFESSIONAL SERVICES FOR NPDES & MS4 COMPLIANCE TO PROVIDE GOOD HOUSEKEEPING EVALUATION FOR STREETS & RIGHT OF WAY DIVISION STORMWATER POLLUTION PREVENTION PLAN (SWPP)	1.0000	14070.00
2	1044.23	DL	NMGRT @ 7.4375%	1.0000	1044.23
				SUB-TOTAL	15114.23
				TOTAL	15114.23

REMARKS:
SCOPE AND PRICING PER SCOPE OF WORK DATED 10/6/17
PROFESSIONAL SERVICES SHALL NOT EXCEED $60,000.0
ONLY ITEMS AUTHORIZED OFF THIS CONTRACT MAY
BE PURCHASED OFF THIS PURCHASE ORDER.
****ATTENTION VENDOR: PURCHASE ORDER NUMBER MUST
BE PRESENT ON INVOICE****

Authorized By.

Purchasing Department
Tax Exempt No. 01-142625-008

Storm Water Pollution Prevention Plan

Streets and Right of Way Facilities

Streets and Right of Way Yard
2704 Iris Road NE
Rio Rancho, NM 87144

Kim Road Yard
2016 Idalia Road NE
Rio Rancho, NM 87144

Weston Project number: 15392.002.001.3000

CONTENTS

LIST OF TABLES

Section 3:

Performance Assessment

Illicit Discharge Incident Reports

CITY OF RIO RANCHO

ILLICIT DISCHARGE INCIDENT TRACKING FORM

Responder Information	
Call taken by: REPORT RIO RANCHO APP.	Call date: 5/17/2018
Call time: 12:51 pm	Precipitation (inches) in past 24-48 hrs: ZERO
Reporter Information	
Incident time: PRIOR TO 12:51 pm	Incident date: PRIOR TO 5/17/18
Caller contact information (*optional*): tmaez2015@icloud.com (505) 238-0674	

Incident Location *(complete one or more below)*

Latitude and longitude:	
Stream address or outfall #: N/A	
Closest street address: 838-850 VANCOUVER RD SE	
Nearby landmark:	

Primary Location Description	**Secondary Location Description:**		
☐ Stream corridor *(In or adjacent to stream)*	☐ Outfall	☐ In-stream flow	☐ Along banks
☒ Upland area *(Land not adjacent to stream)*	☐ Near storm drain	☐ Near other water source (storm water pond, wetland, etc.):	

Narrative description of location: 850 VANCOUVER RD SE SEWER CLEAN OUT

Upland Problem Indicator Description

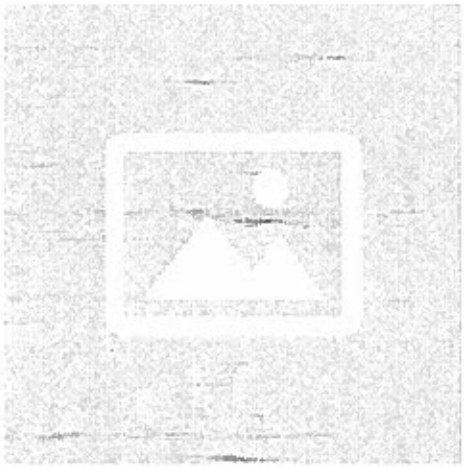
☐ Dumping	☐ Oil/solvents/chemicals	☒ Sewage
☐ Wash water, suds, etc.	☐ Other: _____	

Stream Corridor Problem Indicator Description

Odor	☐ None	☒ Sewage	☐ Rancid/Sour	☐ Petroleum (gas)
	☐ Sulfide (rotten eggs); natural gas	☐ Other: Describe in "Narrative" section		
Appearance	☐ "Normal"	☐ Oil sheen	☒ Cloudy	☒ Suds
	☐ Other: Describe in "Narrative" section			
Floatables	☐ None:	☒ Sewage (toilet paper, etc)	☐ Algae	☐ Dead fish
	☐ Other: Describe in "Narrative" section			

Narrative description of problem indicators: SEWAGE IS FLOWING OUT OF THE CLEANOUT, DOWN THE DRIVEWAY, AND DOWN THE STREET (SOUTH).

Suspected Violator (name, personal or vehicle description, license plate #, etc.):
BANK OWNED: US BANK NATIONAL ASSOCIATION
1270 NORTHLAND DR STE 200
MENDOTA HEIGHTS, MN 55120-1176



Service Request ID# 521421: Environmental Concerns

Request Type: Environmental Concerns

Date Created: May 17, 2018 @ 12:51 PM

Last Updated: May 17, 2018 @ 01:20 PM

Date Closed: N/A

Approximate Address: 838-850 Vancouver Rd SE, Rio Rancho, NM 87124

Request Coordinates: 35.2440973, -106.7361776

Status: In Process

Assigned To: Xavier Pettes

Device: Apple iPhone 7

Console Url: https://console.citysourced.com/pages/issues/issuedetail.aspx?issueid=521421

Type: Surfacing Sewage/Failed Septic System

Description: Sewage in the street

Attachments

Sorry! There are no attachments for this request.

Author Information

Tony Maez [Email: tmaez2015@icloud.com; Phone: 5052380674]

Comments

Date Created	Author	Comment
May 17, 2018 @ 12:52 PM	Rio Rancho	We have received your inquiry. The City will follow up with you on this issue as quickly as possible.
May 17, 2018 @ 01:20 PM	Rio Rancho	Rio Rancho has updated this report's status from 'Received' to 'In Process'.

Private Notes

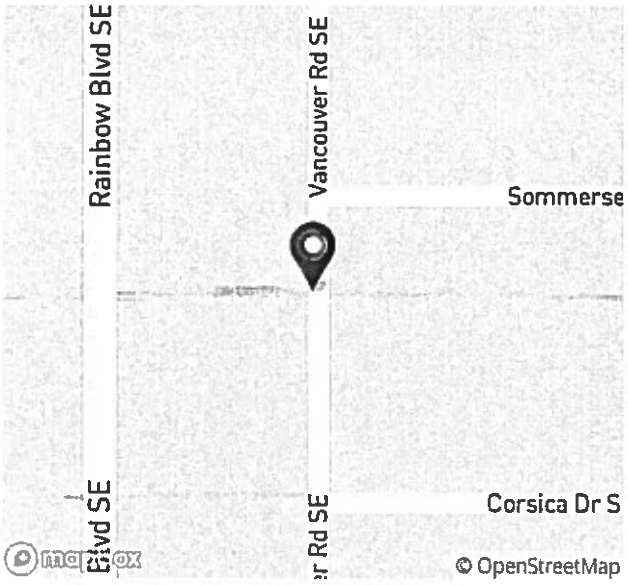
Date Created	Author	Note
May 17, 2018 @ 12:52 PM	Rio Rancho	This request was assigned to Xavier Pettes and a notification was sent to: xpettes@rrnm.gov.

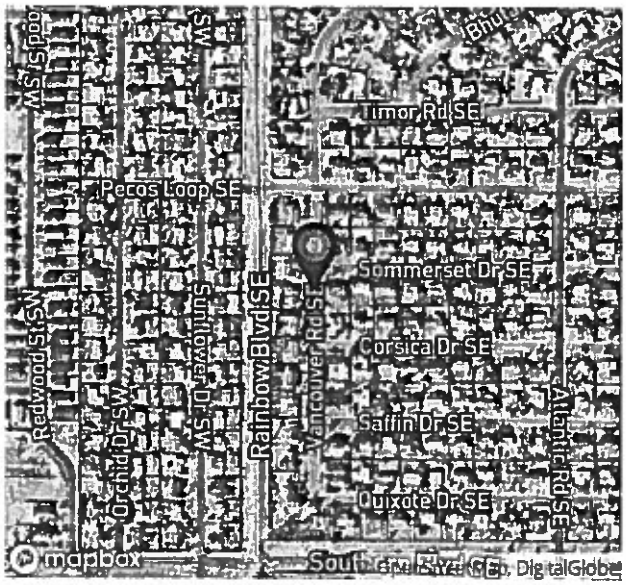
Additional Data

Date Created	Key	Value

May 17, 2018 @ 12:51 PM	OriginationIpAddress	174.237.6.202
May 17, 2018 @ 12:52 PM	InitialBoundaryName	Rio Rancho, NM
May 17, 2018 @ 12:52 PM	InitialBoundaryName	District 1

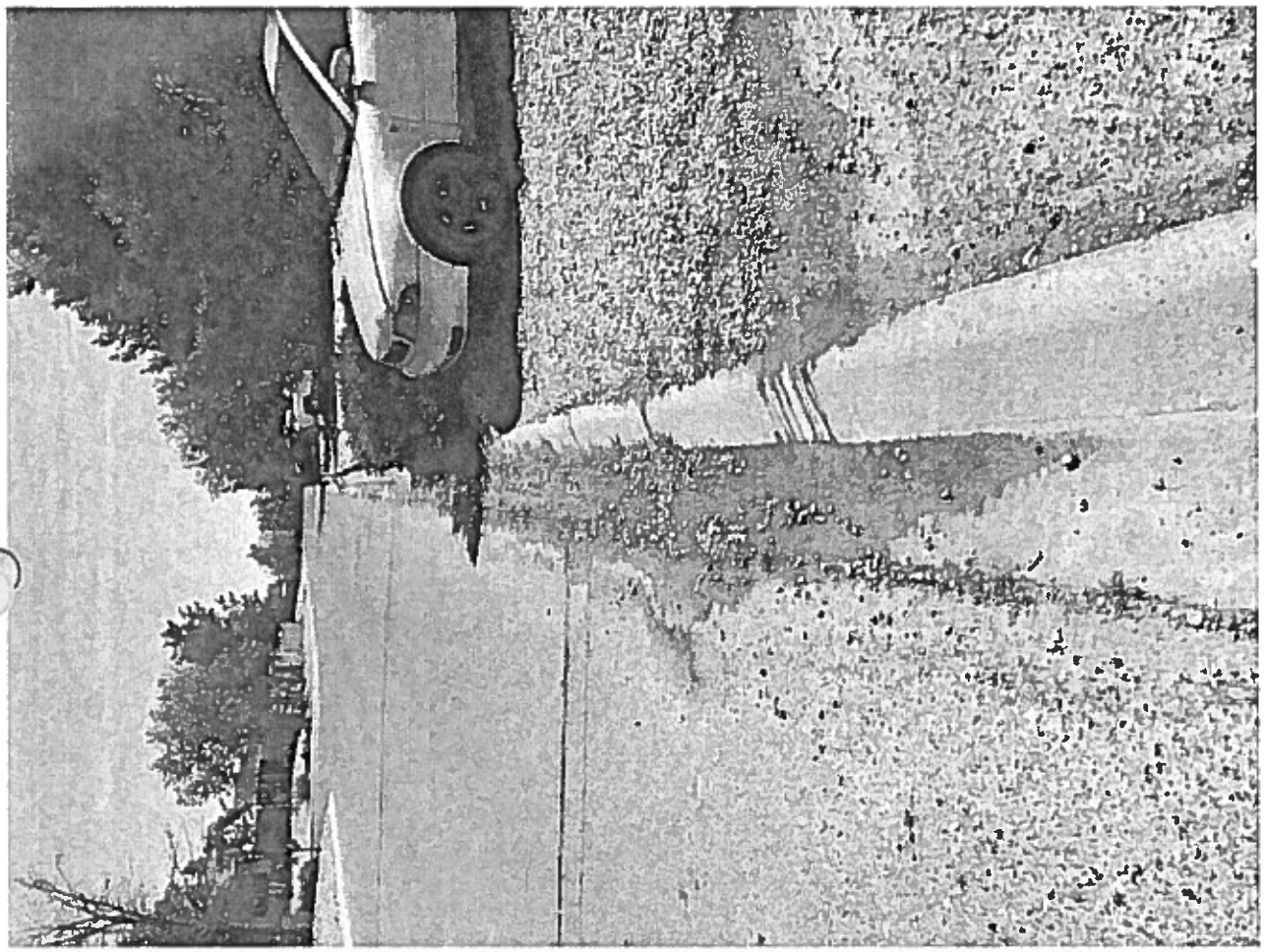
Maps

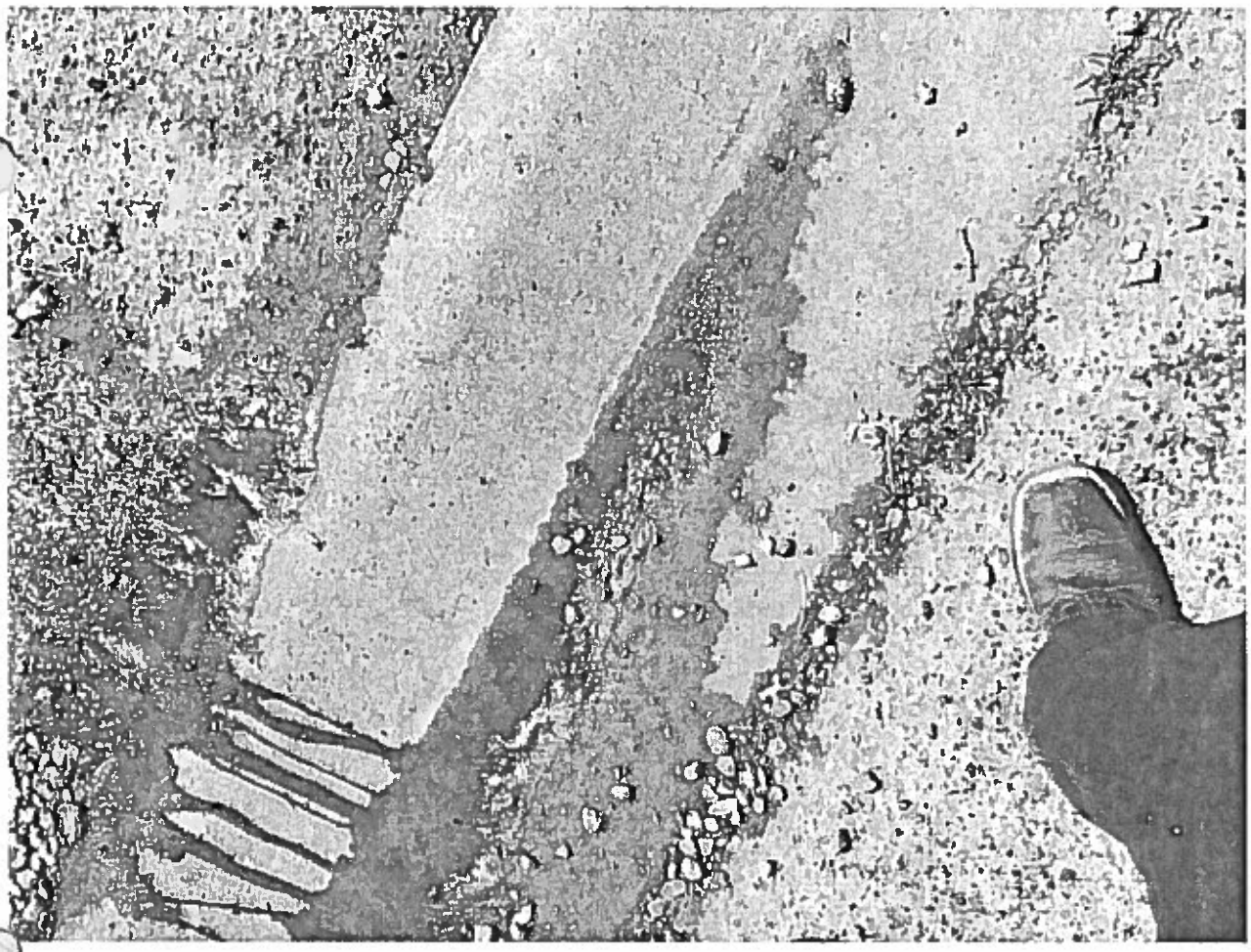


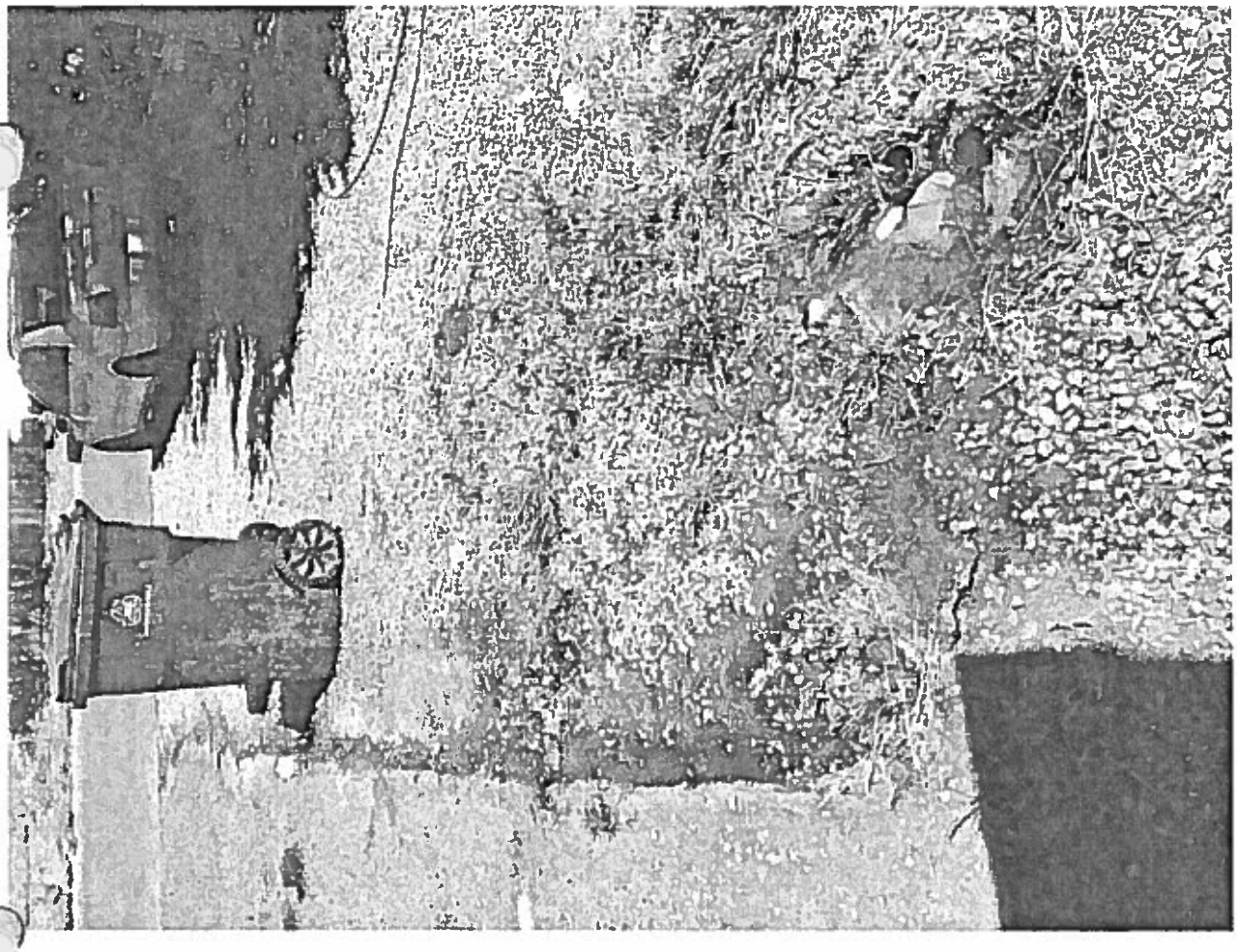


EUGENE PETTES

From: Xavier Pettes <xpettes@gmail.com>
Sent: Tuesday, July 03, 2018 3:00 PM
To: EUGENE PETTES
Subject: Vancouver







Sent from my iPhone

CITY OF RIO RANCHO

ILLICIT DISCHARGE INCIDENT TRACKING FORM

Responder Information	
Call taken by: N/A	Call date: JUNE 27, 2018
Call time: N/A	Precipitation (inches) in past 24-48 hrs: 0.28 RO
Reporter Information	
Incident time: N/A	Incident date: N/A

Caller contact information (*optional*):

DISCHARGE WAS REPORTED TO DMI

Incident Location *(complete one or more below)*

Latitude and longitude: 35.234409° -106.657053°

Stream address or outfall #: 1520

Closest street address: [redacted] - 1610 NM HIGHWAY 528 SE

Nearby landmark: BIG O TIRE AND HOT TAMALES

Primary Location Description	**Secondary Location Description:**		
☐ Stream corridor *(In or adjacent to arroyo)*	☐ Outfall	☐ In-stream flow	☐ Along banks
☒ Upland area *(Land not adjacent to arroyo)*	☒ Near storm drain	☐ Near other water source (storm water pond, wetland, etc.):	

Narrative description of location: OIL AND GREASE STAINING AROUND DUMPSTER BINS

Upland Problem Indicator Description

☐ Dumping	☒ Oil/solvents/chemicals	☐ Sewage
☐ Wash water, suds, etc.	☐ Other: _____	

Stream Corridor Problem Indicator Description

Odor	☐ None	☐ Sewage	☒ Rancid/Sour	☐ Petroleum (gas)
	☐ Sulfide (rotten eggs); natural gas	☐ Other: Describe in "Narrative" section		
Appearance	☐ "Normal"	☐ Oil sheen	☐ Cloudy	☐ Suds
	☒ Other: Describe in "Narrative" section			
Floatables	☒ None:	☐ Sewage (toilet paper, etc)	☐ Algae	☐ Dead fish
	☐ Other: Describe in "Narrative" section			

Narrative description of problem indicators: OIL AND GREASE STAINING ON ASPHALT.

Suspected Violator (name, personal or vehicle description, license plate #, etc.):

BIG O TIRES AND HOT TAMALES.

EUGENE PETTES

From: MARIAN WRAGE
Sent: Thursday, June 28, 2018 12:03 PM
To: EUGENE PETTES
Cc: brenda.nunnally@jacobs.com; BILL JAQUEZ
Subject: FW: Big O Tire and Hot Tamales.pptx
Attachments: Big O Tire and Hot Tamales.pptx

Xavier,

Looks like we have some oil spills from Big O on NM528 and also from Hot Tamales. Bill Jaquez is filling in Katya's vacant position.

Marian

From: Nunnally, Brenda/ATL [mailto:Brenda.Nunnally@jacobs.com]
Sent: Wednesday, June 27, 2018 7:24 PM
To: MARIAN WRAGE <MWRAGE@rrnm.gov>
Subject: FW: Big O Tire and Hot Tamales.pptx

Hi Marian,
The old email didn't work. So here is the file.

Brenda

Brenda Nunnally, Compliance and Reporting
208.420.6931 mobile
Brenda.nunnally@jacobs.com
www.jacobs.com

From: Nunnally, Brenda/ATL
Sent: Wednesday, June 27, 2018 4:49 PM
To: MARIAN WRAGE <MWRAGE@ci.rio-rancho.nm.us>
Subject: Big O Tire and Hot Tamales.pptx

Please find attached the evidence of a spill that occurred in the Hot Tamales and Big O Tire.

Regards,

Brenda

Brenda Nunnally
Jacobs
OM Services Compliance & Reporting
208.420.6931 mobile
brenda.nunnally@jacobs.com

www.jacobs.com

Big O Tires

www.bigotires.com

1610 Rio Rancho Dr SE, Rio Rancho, NM 87124

(505) 892-2664

Open until 6 PM

Directions

Website

Hot Tamales New Mexican Food

www.hottamalesnmrestaurant.com

1520 Rio Rancho Dr SE, Rio Rancho, NM 87124

(505) 962-0123

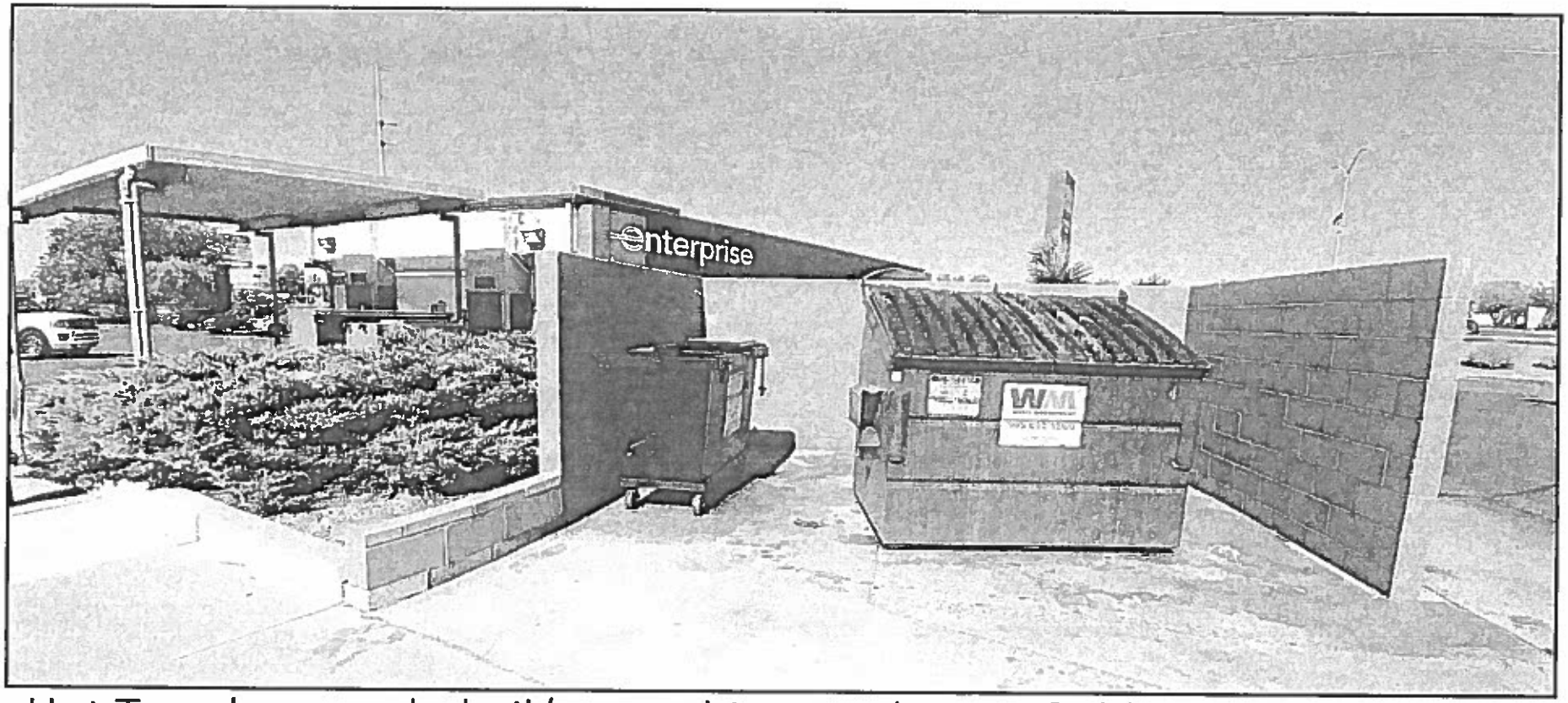
Closed now, opens at 11 AM

Directions

Menu

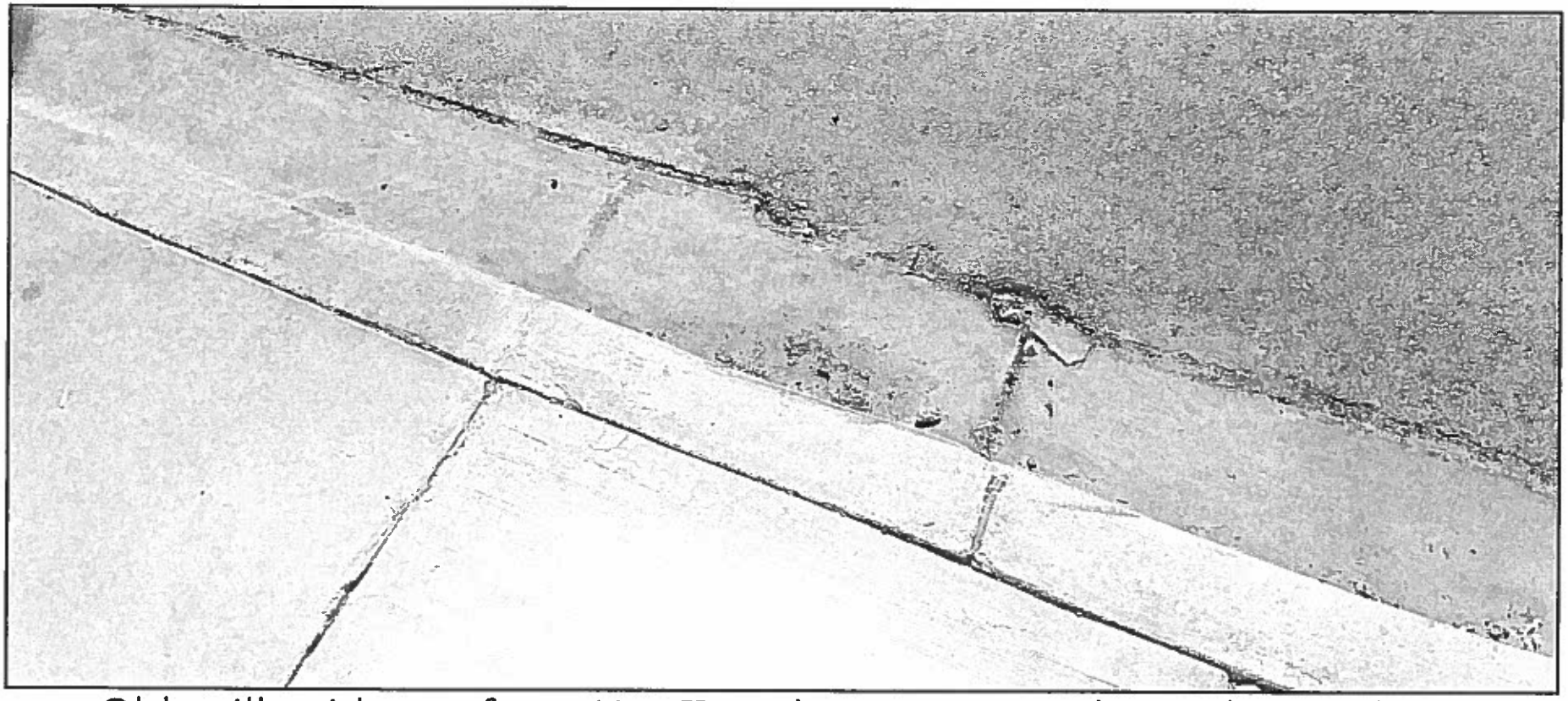
Hot Tamales and Big O Tire

Follow Up Inspection

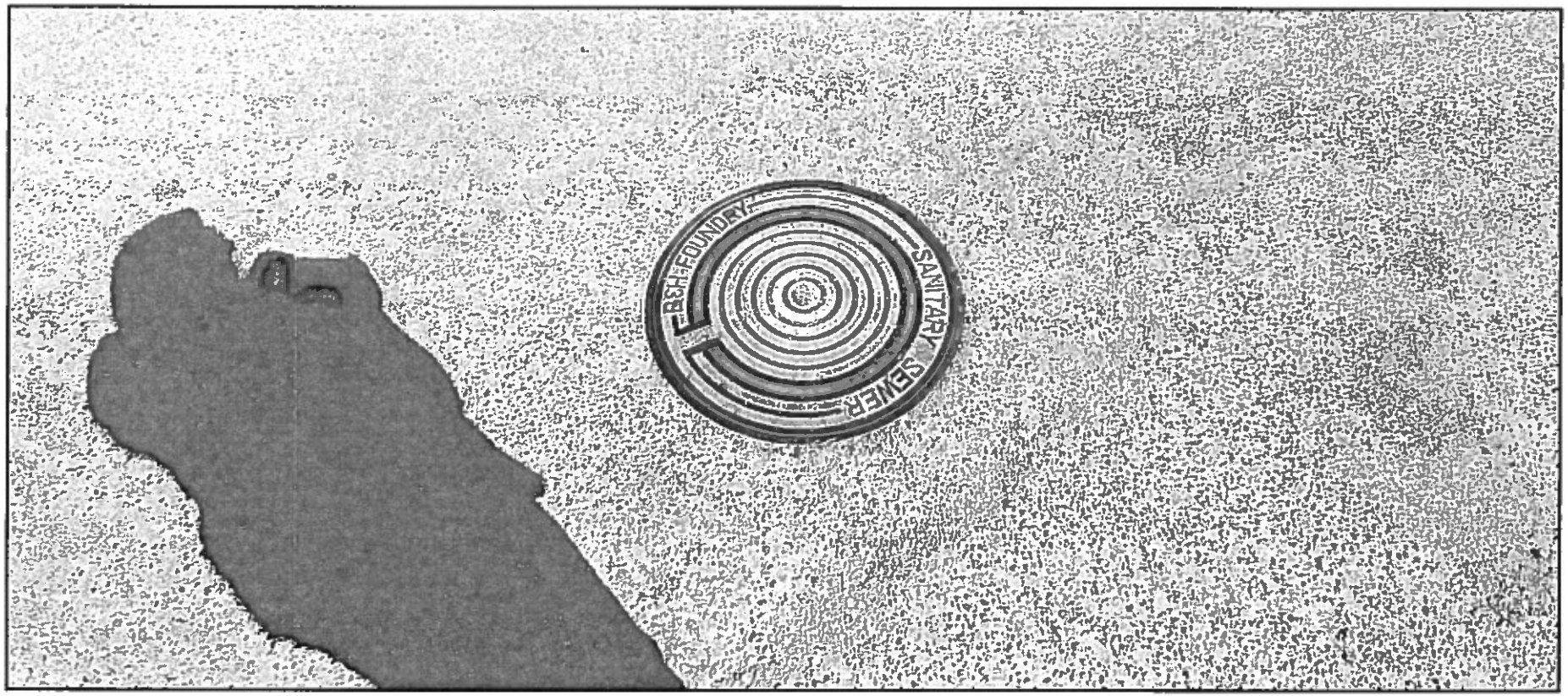


Hot Tamales recycled oil/grease bin – evidence of old spill present based upon failure properly clean up the area

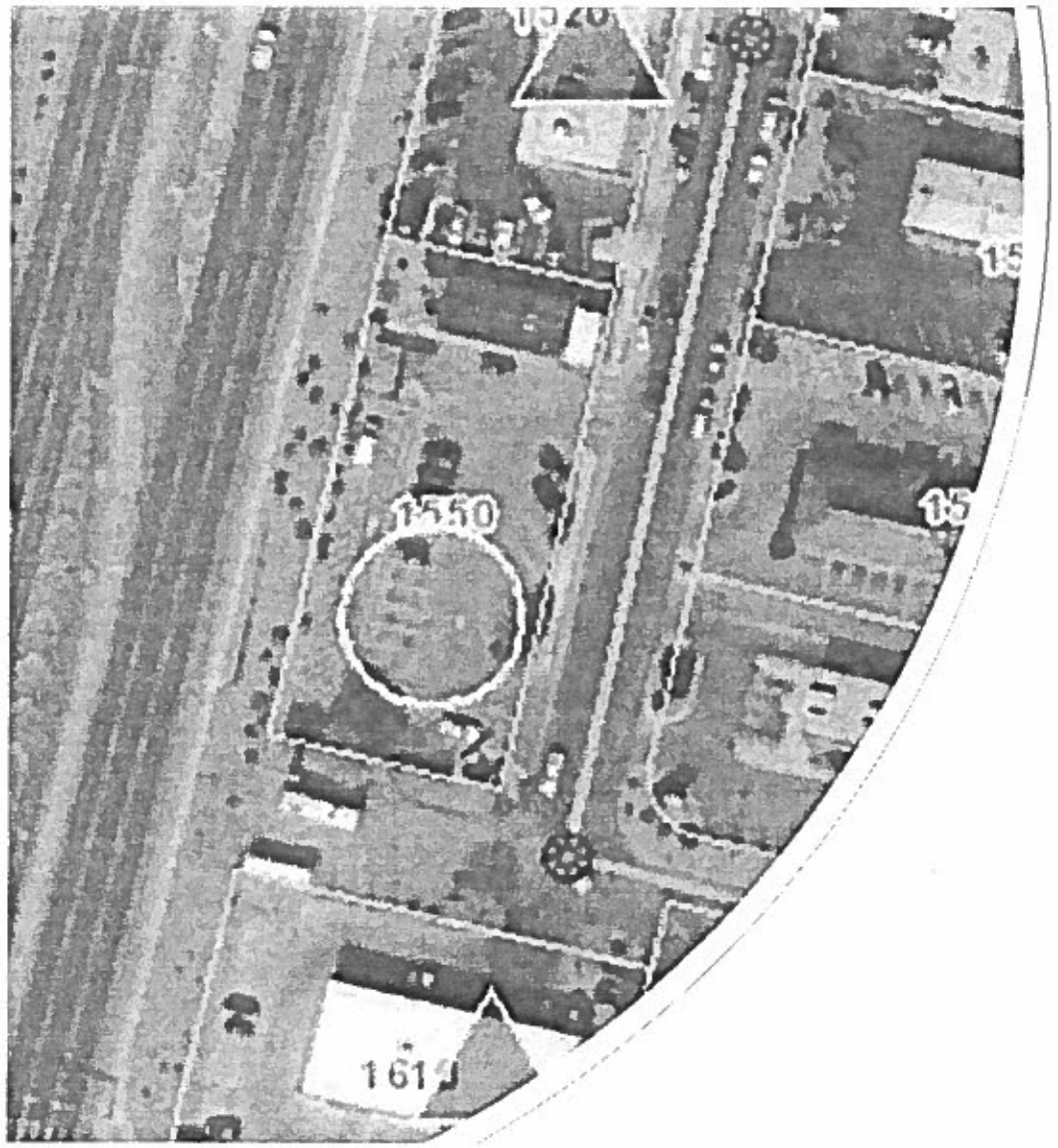
Old spill continues down the roadway in the direction of the manhole.



Old spill evidence from Hot Tamales continues down the roadway towards the Sewer manhole.



Manhole down gradient of Hot Tamales old spill is clean.



Hot Tamales at 1520 Rio Rancho Blvd

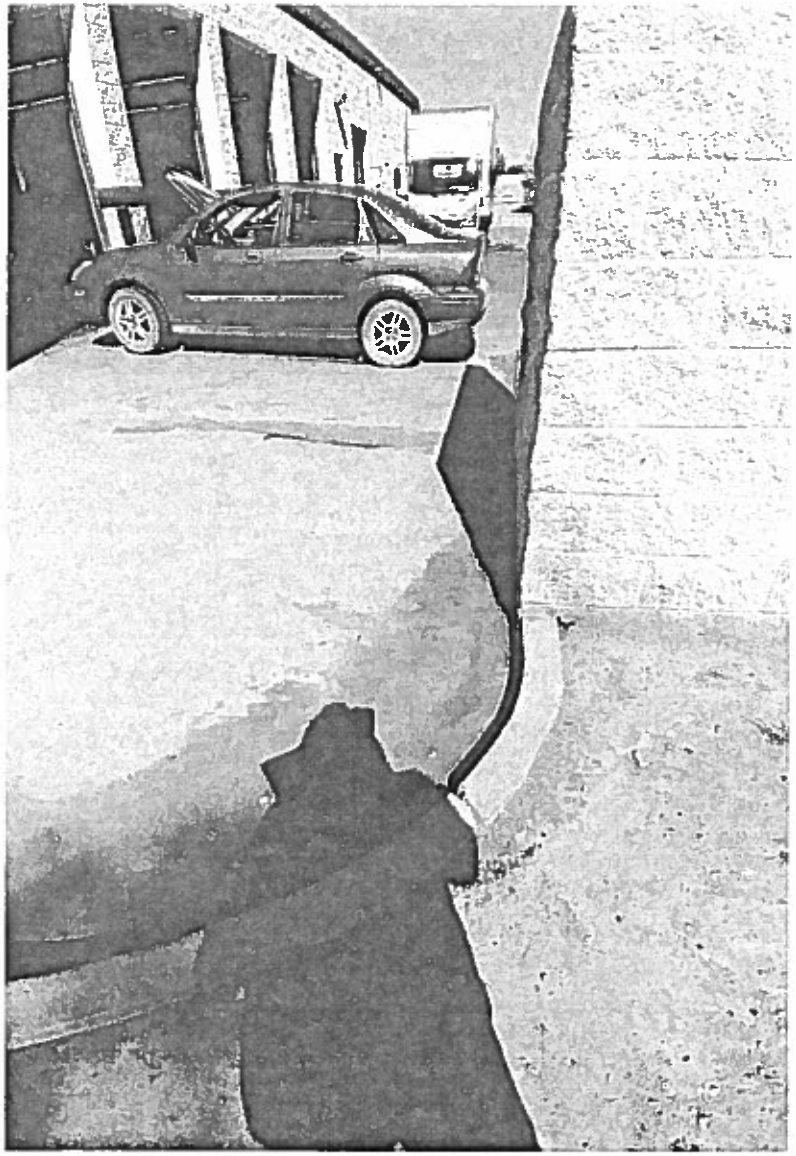
Big O Tire at 1619 Rio Rancho Blvd

Big O Tire also has an old oil spill

Spill heading downward gradient towards the sewer manhole

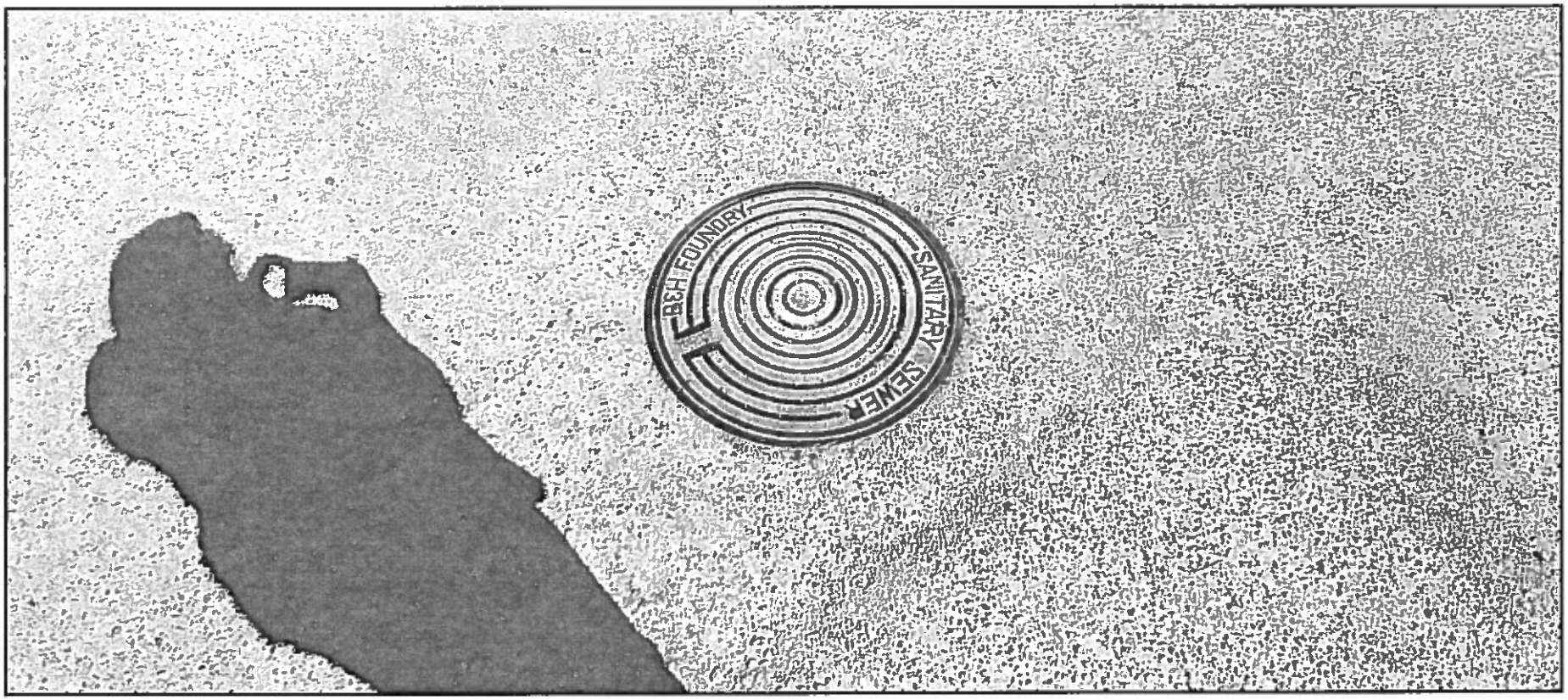
Big O Tire Turning the Corner

- Going around the oil FOG storage bin



Turn the corner

After Turning the Corner



Again the manhole is clean

CITY OF RIO RANCHO

ILLICIT DISCHARGE INCIDENT TRACKING FORM

Responder Information	
~~Call taken by:~~ INSPECTION BY: XAVIER PETTUS	~~Call date:~~ INSPECTION DATE: 6/26/18
~~Call time:~~ INSPECTION TIME: 10:30 AM	Precipitation (inches) in past 24-48 hrs: ZERO
Reporter Information	
Incident time: SOMETIME PRIOR TO JUNE 26TH	Incident date: 6/26/2018
Caller contact information (*optional*):	

Incident Location *(complete one or more below)*

Latitude and longitude: 35.327437° -106.587160

Stream address or outfall #:

Closest street address: 4101 MONTREAL LOOP NE

Nearby landmark: MOUNTAIN VIEW MIDDLE SCHOOL

Primary Location Description	**Secondary Location Description:**		
☐ Stream corridor *(In or adjacent to arroyo)*	☐ Outfall	☐ In-stream flow	☐ Along banks
☒ Upland area *(Land not adjacent to arroyo)*	☒ Near storm drain	☐ Near other water source (storm water pond, wetland, etc.):	

Narrative description of location: CONCRETE WASHOUT LOCATED ~~[illegible]~~ WITHIN MOUNTAIN VIEW MIDDLE SCHOOL PARKING LOT.

Upland Problem Indicator Description

☐ Dumping	☐ Oil/solvents/chemicals	☐ Sewage
☐ Wash water, suds, etc.	☒ Other: CEMENTITIOUS MATERIAL	

Stream Corridor Problem Indicator Description

Odor	☐ None	☐ Sewage	☐ Rancid/Sour	☐ Petroleum (gas)
	☐ Sulfide (rotten eggs); natural gas	☒ Other: Describe in "Narrative" section		
Appearance	☐ "Normal"	☐ Oil sheen	☐ Cloudy	☐ Suds
	☐ Other: Describe in "Narrative" section			
Floatables	☐ None:	☐ Sewage (toilet paper, etc)	☐ Algae	☐ Dead fish
	☐ Other: Describe in "Narrative" section			

Narrative description of problem indicators: CONCRETE WASHOUT OVER FILLED, AND DRAINING INTO PARKING LOT INLET. SEE PHOTOS ATTACHED

Suspected Violator (name, personal or vehicle description, license plate #, etc.):

TLC COMPANY, INC. SUBCONTRACTOR

EUGENE PETTES

From: EUGENE PETTES
Sent: Tuesday, June 26, 2018 1:34 PM
To: 'darmstrong@tlcplumbing.com'
Cc: 'John Keys'; GILLIE LOPEZ; JAMIE MARRUFO; DAVID SERRANO; ANTHONY CARAVELLA; BRYAN ARAGON
Subject: Montreal Loop Reconstruction Project - NOTICE OF VIOLATION
Attachments: 153.31(6).pdf; 153.31(12).pdf; 2017 CGP 2.3.4 Concrete Washout.pdf; Project Site Plan.pdf

Mr. Armstrong,

The City of Rio Rancho recently performed an inspection at the construction site indicated above for compliance with the NPDES General Permit for Discharges from Construction Activities, (https://www.epa.gov/sites/production/files/2017-06/documents/2017_cgp_final_permit_508.pdf) and found violations of the Construction General Permit (CGP), as well as Rio Rancho Municipal Code: Erosion Control; Storm Drainage and Stormwater Quality, Sections 153.31(6) and 153.31(12). Please see the attached compliance documents and photographs below for details of the violations.

Non-Compliance Issues

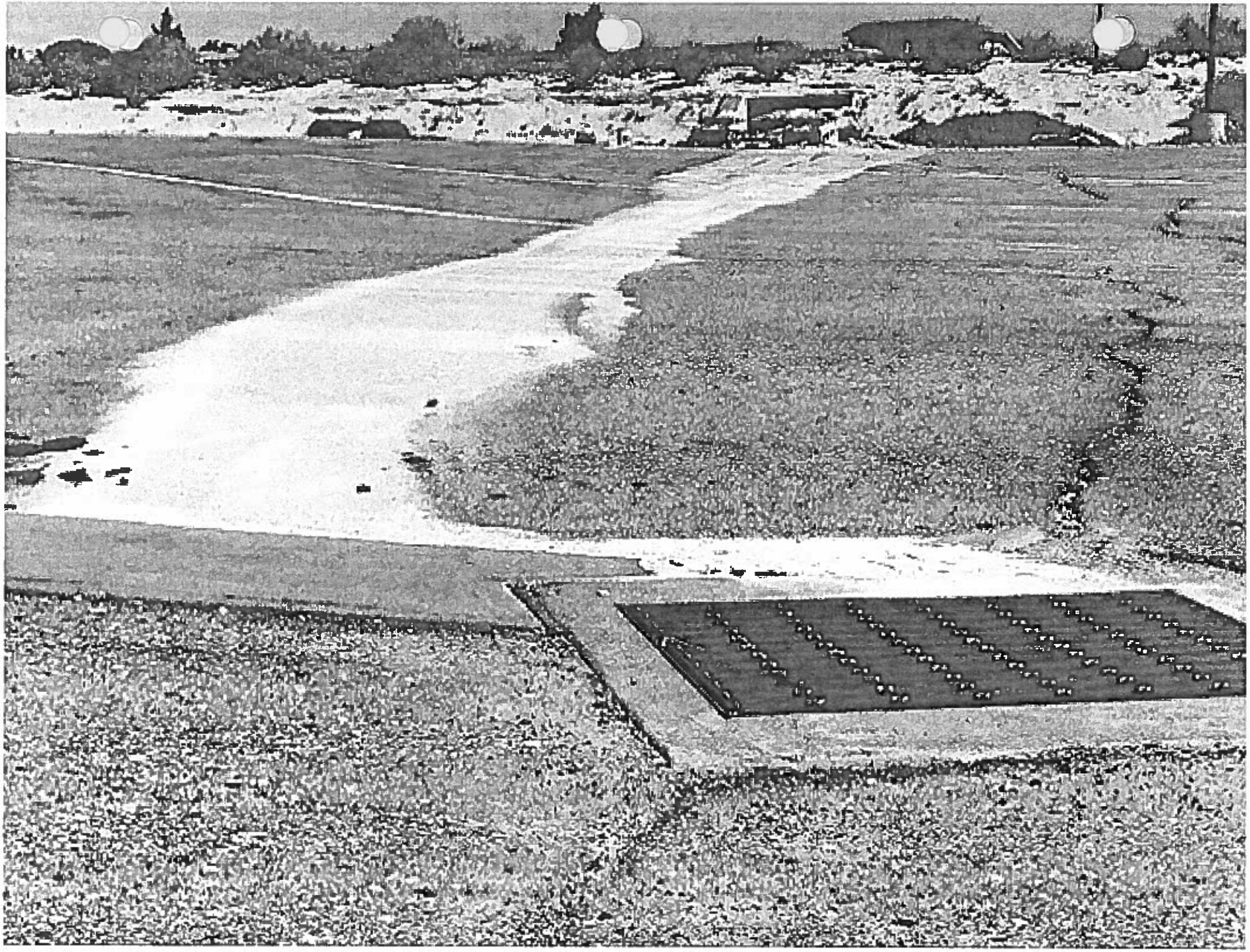
- Owner NOI is not active;
- USEPA Notice of Intent is not posted per CGP, Section 1.5;
- Concrete washout is not identified on SWPPP Erosion and Sediment Control Plan; and
- Illicit discharge into public owned MS4

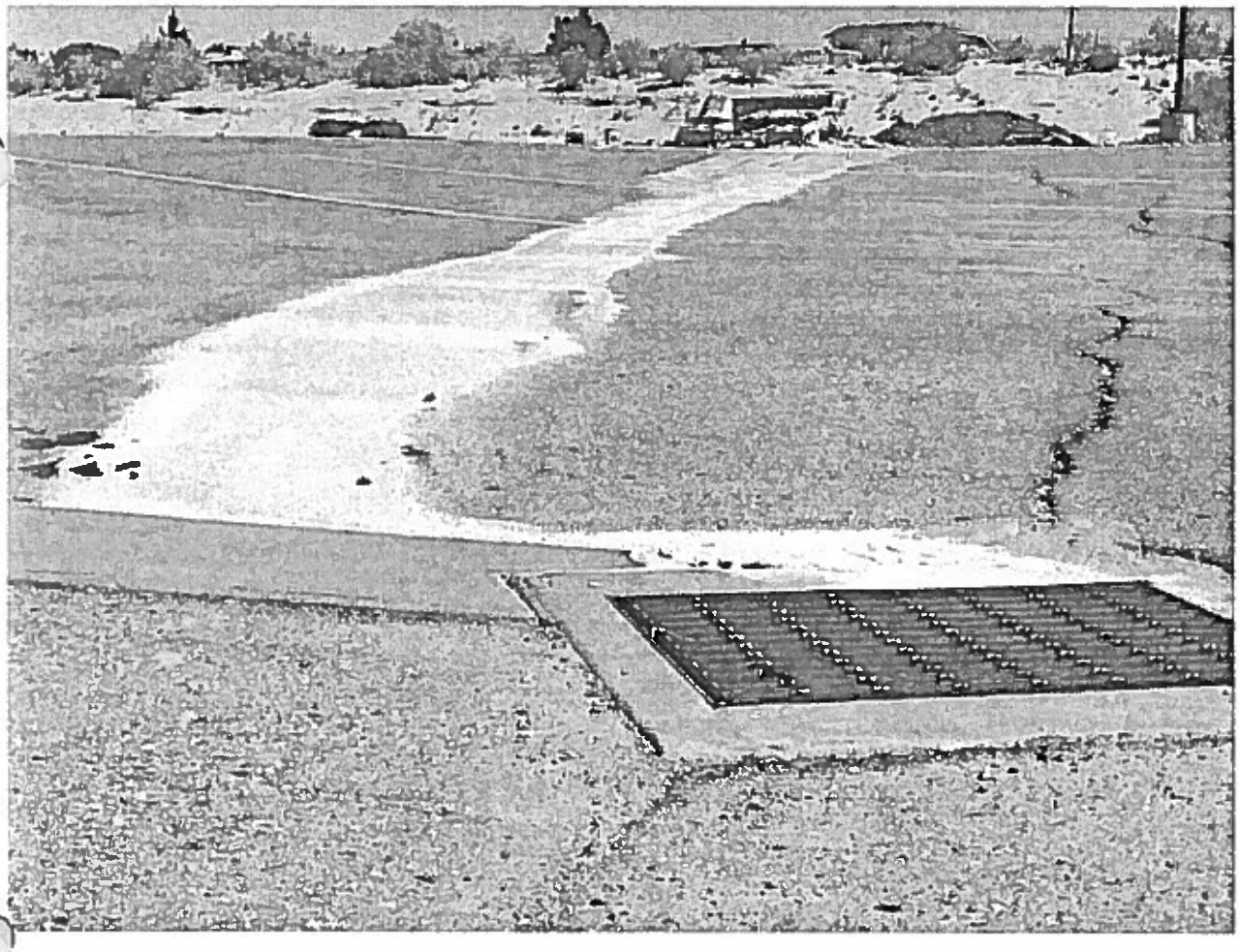
Attached:
NPDES ID: NMR1001CZ
Project Site Plan
Inspection Photos (below)
Municipal Code and 2017 CGP (excerpts)

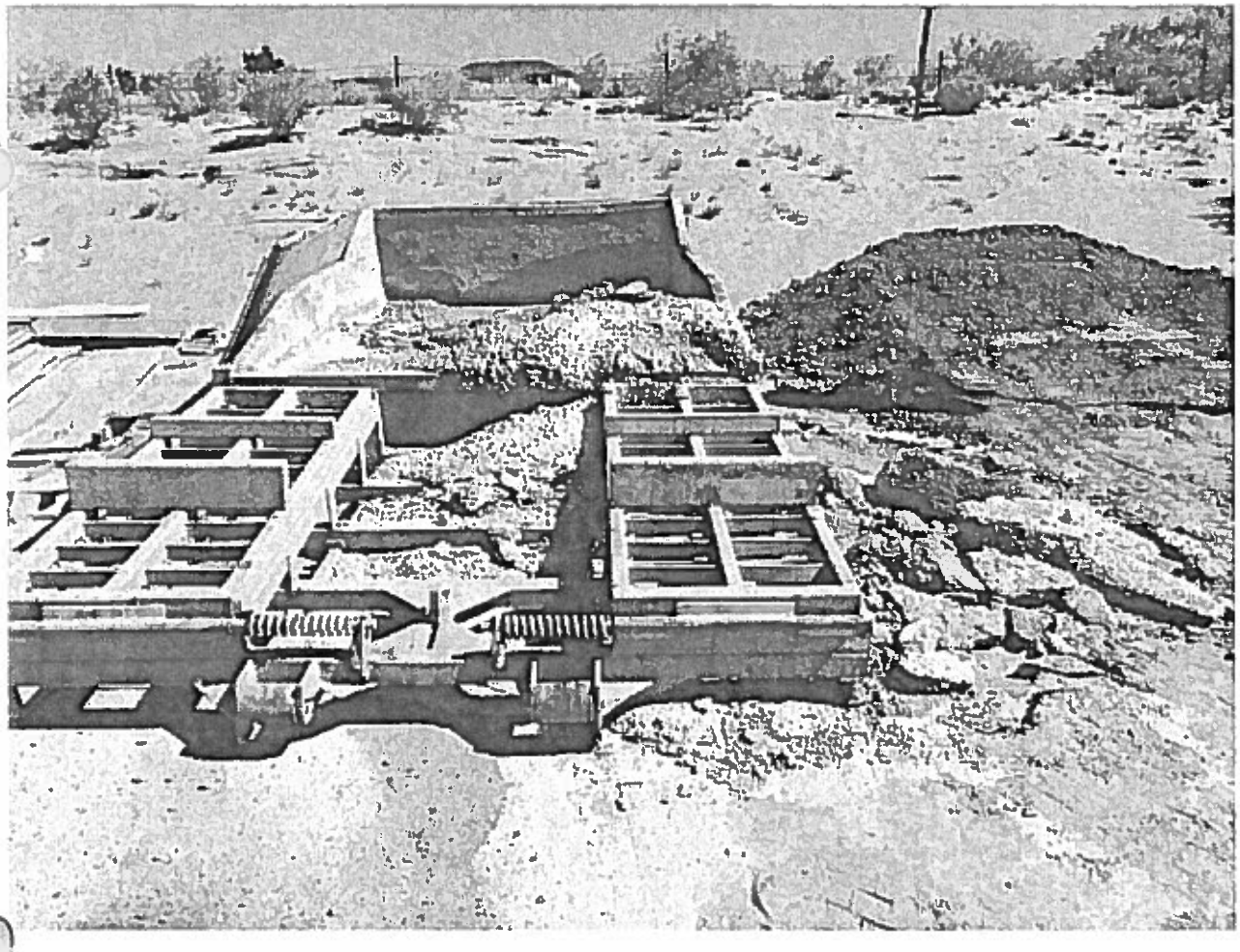
Should you have additional question concerning this Notice of Violation, please do not hesitate to contact me.

Thank you,

From: Xavier Pettes [mailto:xpettes@gmail.com]
Sent: Tuesday, June 26, 2018 10:46 AM
To: EUGENE PETTES <XPETTES@RRNM.GOV>
Subject: Montreal Loop







Sent from my iPhone

CitySourced – Service Requests and Metrics

CitySourced Environmetal Concerns and Illegal Dumping - July 1, 2017-June 30, 2018

Colu	DateCreated	DateClosed	RequestType	Latitude	Longitude	Address	Description	Status Type	AssignedTo
1	2018-06-29T19:07:31		Code Enforcement	35.2671145	-106.7204923	504 8th St NE, Rio Rancho, NM 87124	Building materials, junk and trash...un-kept front yard	In Process	David Branch
2	2018-06-29T15:55:22		Code Enforcement	35.2610678	-106.7087792	1341 Tulip Rd SE, Rio Rancho, NM 87124	There are several trash bags placed near the curb and some other trash at or near 1341 Tulip Road SE. It does not appear that they even have trash containers. Received as a walk-in, entered in by PW.	In Process	David Branch
3	2018-06-27T13:23:07	2018-08-02T07:00:09	Code Enforcement	35.2917466	-106.7126144	1108 Strawberry Ct NE, Rio Rancho, NM 87144	Trash bags stored in driveway on pallet. Per neighbors, the trash is causing a smell in the area and possible pests issues as well. Also, per neighbors, the property has no Waste Management bins or service.	Closed	Bryan Misbach
4	2018-06-27T13:19:02		Code Enforcement	35.2360777	-106.6546673	4041 Barbara Loop SE, Rio Rancho, NM 87124	Suit C dumped this. HairRazors salan Suit C did this when they moved. they moved down the street. Please hold them accountable. HairRazors	In Process	David Branch
5	2018-06-24T09:44:03	2018-06-26T07:17:35	Illegal Dumping	35.3511072	-106.6695161	Orwell Dr NE, Rio Rancho, NM 87144	Paint cans, wooden box of some description, various other trash	Closed	Alex Chavez
6	2018-06-23T19:38:52	2018-07-12T08:54:29	Code Enforcement	35.2496934	-106.7052269	1640 Pegasus Ave SE, Rio Rancho, NM 87124	3rd complaint in 4 years with you, owner of home still has not cleaned up anything in his backyard! It remains unkempt with no door to garage and hoarding inside, trash in backyard and unkempt landscaping. Its a fire and health hazard! I have not seen owner come out or hang laundry outside like usual in many months, not sure if anyone is alive in there!!! Please check on this problem property!	Closed	Bryan Misbach
7	2018-06-22T20:52:59	2018-08-02T06:57:10	Code Enforcement	35.2441235	-106.7344061	119 Sommerset Dr SE, Rio Rancho, NM 87124	Excessive junk all around the front of the house.	Closed	Jimmy Chavez
8	2018-06-22T13:49:32	2018-07-06T09:22:43	Code Enforcement	35.2533327	-106.6664405	3525 White Horse Dr SE, Rio Rancho, NM 87124	"under construction" house to the city of Rio Rancho. There has been no activity on it for a few months and it is looking really trashy and neighbors are complaining.	Closed	Jimmy Chavez
9	2018-06-22T13:29:56	2018-06-26T07:16:21	Illegal Dumping	35.3512252	-106.6694582	Orwell Dr NE, Rio Rancho, NM 87144	Big pile of paint cans and cabinets on side of road. Just off Unser and Mariposa Parkway, on the side road (north) marked "Osage." I couldn't see the road on your map-might be the road on the map called "Orwell."	Closed	Alex Chavez
10	2018-06-21T16:54:39	2018-07-09T11:27:37	Code Enforcement	35.2433564	-106.7371705	896 Sunflower Dr SW, Rio Rancho, NM 87124	Resident has left couches outside for a couple of months, and they are starting to attract a lot of mice, which are coming into my property.	Closed	Amanda Hogge
11	2018-06-21T10:33:31	2018-06-27T07:16:11	Illegal Dumping	35.254477	-106.6597126	4120 High Resort Blvd SE, Rio Rancho, NM 87124	Over flowing trash receptacle	Closed	Zachariah Keintz
12	2018-06-20T11:20:03	2018-06-26T16:45:06	Code Enforcement	35.322578	-106.714867	4039 Oasis Springs Rd NE, Rio Rancho, NM 87144	Washing machine on the easement, has been there for a month.	Closed	Amanda Hogge
13	2018-06-19T13:58:11	2018-06-21T15:50:09	Code Enforcement	35.2221094	-106.6684918	3409 21st Ave SE, Rio Rancho, NM 87124	trash throughout yard	Closed	David Branch

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Colu	DateCreated	DateClosed	RequestType	Latitude	Longitude	Address	Description	Status Type	AssignedTo
14	2018-06-18T20:16:30	2018-06-20T06:58:53	Illegal Dumping	35.3417528	-106.609667	5016 Frontier Rd NE, Rio Rancho, NM 87144	On Frontier Rd NE & Magnet Road NE Intersection someone dumped a mattress and box springs. There's a TV too but been there for yrs. O Frontier Rd NE & Count Dr NE Intersection I stacked up 3 Tires. I've been trying to clean that corner a little bit at a time. It's been that way for yrs too. I don't know if you pickup items but thought I'd ask.	Closed	Zachariah Keintz
15	2018-06-18T18:15:44	2018-07-09T16:58:48	Code Enforcement	35.237229	-106.6961684	2022 S Ensenada Cir SE, Rio Rancho, NM 87124	Multiple items which seems to be construction materials, vehicles and junk throughout property	Closed	David Branch
16	2018-06-18T09:33:18	2018-06-22T08:11:25	Illegal Dumping	35.2857527	-106.7169052	10th St, Rio Rancho, NM 87144	The stained bucket in the attached photo has been on the west shoulder of 10th Street for at least a couple weeks. The stain on it and on the ground is so ugly I do not want to check it out, in case it is a health hazard.	Closed	Zachariah Keintz
17	2018-06-17T10:49:14	2018-06-20T11:43:26	Illegal Dumping	35.2289434	-106.7066716	1521 17th Ave SE, Rio Rancho, NM 87124	I own the two lots behind me People are dumping cement fire pit refuse & cuttings on my lots.	Closed	Zachariah Keintz
18	2018-06-15T17:29:30	2018-06-22T16:07:25	Illegal Dumping	35.2968473	-106.7161236	2158 Cherry Rd NE, Rio Rancho, NM 87144	trash and debris has been thrown in the back fire hazard to the fence	Closed	Alex Chavez
19	2018-06-13T10:48:34	2018-06-21T15:55:09	Code Enforcement	35.2446947	-106.7184341	796 Rodeo Loop SE, Rio Rancho, NM 87124	excessive junk and trash in front of property and it has been reported several times since last year. It has not been addressed. code violation/ public nuisance	Closed	David Branch
20	2018-06-13T10:42:08	2018-06-13T12:05:25	Code Enforcement	35.2420352	-106.7191102	821 Spur Rd SE, Rio Rancho, NM 87124	trash in front of property	Duplicate	Unassigned
21	2018-06-13T10:40:18	2018-06-21T15:58:04	Code Enforcement	35.2420309	-106.7190778	821 Spur Rd SE, Rio Rancho, NM 87124	excessive trash in front of property and junked vehicles	Closed	David Branch
22	2018-06-08T14:19:51	2018-06-13T07:09:54	Illegal Dumping	35.2586096	-106.7147181	Idalia Rd SE, Rio Rancho, NM 87124	Loose cardboard and paper	Closed	Zachariah Keintz
23	2018-06-07T13:13:54	2018-07-17T12:18:11	Code Enforcement	35.3504484	-106.6976395	5733 Pikes Peak Loop NE, Rio Rancho, NM 87144	The builders in this neighborhood are leaving trash loose on the ground at their construction sites which then blows all over the neighborhood. The attached photo is an example from the house being constructed at 5448 Pikes Peak Loop NE.	Closed	Jimmy Chavez
24	2018-06-07T10:02:13		Illegal Dumping	35.3245796	-106.6545224	Oerview Rd NE, Rio Rancho, NM 87144	Book case and shelving. Footlocker full of shoes (some nearly new) Misc trash	In Process	Annie Easton
25	2018-06-07T09:12:54	2018-06-08T11:24:25	Illegal Dumping	35.3230039	-106.5906	Cam Encantadas, Rio Rancho, NM 87144	In arroyo south east of intersection: electronics and grocery cart	Closed	Zachariah Keintz
26	2018-06-06T18:54:21	2018-06-15T07:26:55	Illegal Dumping	35.3355279	-106.5816697	Enchanted Hills Path, Rio Rancho, NM 87144	Located in between Home Depot on 550, and the water tank. In the big vacant lot next to Enchanted Hills and enchanted Vista apartments. There's a large pile of trash that was dumped that looks like it was from somebody moving out of an apartment or home. There are chairs a wooden table boxes labeled with kitchen bedroom etc. and a bunch of other debris's.	Closed	Zachariah Keintz
27	2018-06-05T10:50:41	2018-06-27T07:23:40	Illegal Dumping	35.3264703	-106.6231728	Moon Rd NE, Rio Rancho, NM 87144	More Pallets this time CREGO Block stencils all over them. Not on the road but an eyesore none the less. Are these businesses responsible for the dumping?	Closed	Zachariah Keintz

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Colu	DateCreated	DateClosed	RequestType	Latitude	Longitude	Address	Description	Status Type	AssignedTo
28	2018-06-04T18:01:01	2018-06-06T07:09:02	Illegal Dumping	35.3031481	-106.589613	6916 Tampico Rd NE, Rio Rancho, NM 87144	Debris	Closed	Zachariah Keintz
29	2018-06-04T15:26:40	2018-06-13T09:49:35	Code Enforcement	35.2472006	-106.7438346	545 Apache Loop SW, Rio Rancho, NM 87124	2 inop. cars in street, abandoned couch in front yard, trash/yard waste pile filling gap between house and trailers.	Closed	Anthony Benavidez
30	2018-05-31T20:51:36	2018-06-27T07:24:07	Illegal Dumping	35.3238793	-106.6232157	Vilanella Rd NE, Rio Rancho, NM 87144	Whole pickup load of suspect stolen pallets which are marked with "Property of" marking. At 2023 while returning from walking the dog the individuals were dumping the pallets in an area well trashed from "parties". My phone did NOT capture the individuals. Appeared to be an early 90s ford f150 with headache rack two colors white gray, with accident damage and one red fender in the front.	Closed	Zachariah Keintz
31	2018-05-31T15:22:43	2018-06-05T07:14:43	Illegal Dumping	35.2565622	-106.7224038	Rio Rancho, NM	Couch dumped at intersection of 7th Street and Inca, and 3 TV sets/electronics dumped at intersection of 8th Street and Inca	Closed	Zachariah Keintz
32	2018-05-29T14:22:56	2018-05-30T15:52:19	Illegal Dumping	35.2912917	-106.7127961	2009 Strawberry Pl NE, Rio Rancho, NM 87144	The tenants at this location have been throwing their garden waste into the alley/ditch/arroyo area behind their fence. Beyond proximity to their home, they are growing the same crops again which should suffice as evidence that this is their litter/dumpings.	Closed	Bryan Misbach
33	2018-05-26T10:55:49	2018-06-05T07:15:22	Illegal Dumping	35.3063264	-106.7008495	2522 Box Lake Dr NE, Rio Rancho, NM 87144	A pile of trash dumped in the last ten days. About a pickup load. I did not see who dumped it	Closed	Zachariah Keintz
34	2018-05-24T18:23:11	2018-05-25T14:12:40	Code Enforcement	35.2582697	-106.7115318	60 Tarpon Ave SE, Rio Rancho, NM 87124	2018 24May at 60 Tarpon there is broken cinder block including a mail box post, with its cement still attached to the support, and weeds all over the front yard.	Closed	Jimmy Chavez
35	2018-05-24T18:17:56	2018-05-25T13:53:15	Code Enforcement	35.2585401	-106.7118312	40 Tarpon Ave SE, Rio Rancho, NM 87124	40 Tarpon has trash and weeds all over the front yard.	Closed	Jimmy Chavez
36	2018-05-24T12:57:42	2018-05-31T07:53:39	Illegal Dumping	35.2579731	-106.7247791	89 6th St SE, Rio Rancho, NM 87124	Two garbage bags of heavy food items just north of Sandia Blvd on 6th street NE. Too heavy to move for us on clean up days.	Closed	Zachariah Keintz
37	2018-05-23T20:44:29	2018-07-06T09:36:53	Illegal Dumping	35.3029598	-106.5897578	6916 Tampico Rd NE, Rio Rancho, NM 87144	Construction materials	Closed	Annie Easton
38	2018-05-23T10:51:39	2018-06-27T11:56:22	Illegal Dumping	35.3325624	-106.678791	Basil Ct NE, Albuquerque, NM 87122	Pile of trash including parts and pieces from Kitchen remodel including sink, dishwasher, and cabinet parts and pieces. Lots of household trash as well. Trash includes pay stubs from Mason Wayne York ,5036 Coyote Way Rio Rancho 87144 LatN35 19 58 long w106 40 14	Closed	Jimmy Chavez
39	2018-05-22T17:30:20	2018-06-01T07:14:34	Illegal Dumping	35.3492158	-106.6256633	5524 Kennard Rd NE, Rio Rancho, NM 87144	A large trash pile just west of the water towers west of Chayote	Closed	Zachariah Keintz
40	2018-05-22T14:28:25	2018-06-13T16:58:50	Code Enforcement	35.2545156	-106.7221668	530 Arizona St, Rio Rancho, NM 87124	The dumpster is not being emptied and trash is piling up around it.	Closed	David Branch
41	2018-05-22T05:58:20		Code Enforcement	35.3487224	-106.6078327	5084 Mira Vista Dr NE, Rio Rancho, NM 87144	Trash and weeds on neighbors front yard is blowing into our yard. We just had our back yard re done and trash and weeds blow into our yard.	In Process	David Branch

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Colu	DateCreated	DateClosed	RequestType	Latitude	Longitude	Address	Description	Status Type	AssignedTo
42	2018-05-21T10:02:25	2018-05-22T12:56:54	Illegal Dumping	35.2876487	-106.7169052	10th St, Rio Rancho, NM 87144	Indicated location on west side of 10th Street is approximate. There are several black trash bags just off the shoulder, in the brush. Someone has ripped them open since they were dumped. Looks like some yard waste and trash.	Closed	Zachariah Keintz
43	2018-05-21T09:21:31	2018-05-23T08:22:07	Environmental Concerns	35.249735	-106.6712171	Country Club Path, Rio Rancho, NM 87124	The Lakes on Club Rio Rancho were a living Eco System that has supported Wild Life and Migratory Birds for over 4 Decades including Endangered Species. Amazed that the draining of them was handled as if they were someones backyard water feature. Disgusting so little thought given to this Wild Life Habitat.	Closed	Xavier Pettes
44	2018-05-19T17:55:20	2018-06-13T08:33:21	Code Enforcement	35.2566783	-106.7006327	221 2nd St SE, Rio Rancho, NM 87124	Back door of Apt B Washing machine sitting outside which is a danger concern, children in area could climb inside. Mattresses, couches there as well which can cause rats, snakes to hide. There is also a large bed frame that can easily fall and cause harm.	Closed	David Branch
45	2018-05-17T14:34:44	2018-05-17T17:04:13	Environmental Concerns	35.249735	-106.6712171	Country Club Path, Rio Rancho, NM 87124	Follow up. Please View on Facebook West Nine Neighborhood association photos clearly documenting the lack of containment for water discharge. This morning did some digging only after 24 hours of running down the arroyo. Neighbor reports not holding	Closed	Xavier Pettes
46	2018-05-17T12:51:23	2018-07-05T13:41:08	Environmental Concerns	35.2440973	-106.7361776	838-850 Vancouver Rd SE, Rio Rancho, NM 87124	Sewage in the street	Closed	Tasha Romero
47	2018-05-17T12:44:44	2018-05-17T17:05:38	Environmental Concerns	35.249735	-106.6712171	Country Club Path, Rio Rancho, NM 87124	Discharge of waste water. Land owner pumping waste water from pond without EPA approval. Land owner NOT in compliance with the law.	Closed	Xavier Pettes
48	2018-05-15T11:20:56	2018-05-25T13:43:56	Code Enforcement	35.2568499	-106.6828899	90 Lynwood Dr SE, Rio Rancho, NM 87124	Weeds and trash, dump type items. I would like to remain anonymous. Thank you	Closed	Jimmy Chavez
49	2018-05-14T13:21:49	2018-05-25T13:48:41	Code Enforcement	35.2480693	-106.7333464	654 Vancouver Rd SE, Rio Rancho, NM 87124	Trash inside and outside dumpster. Smells bad has been there over a month. The trash is blowing everywhere.	Closed	Jimmy Chavez
50	2018-05-14T09:28:28	2018-05-17T07:53:22	Illegal Dumping	35.2843295	-106.7162347	Pine Rd NE, Rio Rancho, NM 87144	Mattress dumped on shoulder of Pine Road near Tenth Street. There also is a cardboard box under the mattress.	Closed	Alex Chavez
51	2018-05-13T15:19:02	2018-05-18T10:38:06	Illegal Dumping	35.2685586	-106.6479892	533 Longwood Loop NE, Rio Rancho, NM 87124	Trash dumped in side yard, not in container, exposed to environment and view from adjacent property.	Closed	Jimmy Chavez

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Colu	DateCreated	DateClosed	RequestType	Latitude	Longitude	Address	Description	Status Type	AssignedTo
52	2018-05-10T12:01:25	2018-08-02T06:51:42	Code Enforcement	35.2502047	-106.7147336	620 Ivory Rd SE, Rio Rancho, NM 87124	The neighborhood up here on Ivory Rd.S.E. has asked the owners of 620 Ivory Rd. S.E. (corner lot) repeatedly to clean up an 1/2 acre in back of used wrecked cars, metal , dry lumber & various fire hazards with a rotted wooden fence which has already fallen in many pieces & some areas of that fencing is just laying all over our property also. We have tried with no avail to resolve this issue so was told to call Code Enforcement & i left a message but wanted to follow up with a complaint as nobody in this neighborhood knows what to do. It is a total dumping ground for everything & is most likely an environmental issue as well as a horrible eye sore to our neighborhood. My husband & i have to keep cleaning up the mess on our property as it is coming from his side & back 1/2 acre. There are many old beat up scrap metal cars & must be running a business back there but also there is a hoarding situation going on just like the City dump. We would ALL like to resolve this issue & hopefully someone can check into this	Closed	Jimmy Chavez
53	2018-05-08T15:13:51	2018-05-17T15:26:17	Code Enforcement	35.295932	-106.7151482	2229 High Desert Cir NE, Rio Rancho, NM 87144	This home is littered with trash in the front porch including some sofa chairs, old projector screen televisions, a treadmill and other items. I would like to remain anonymous.	Closed	Bryan Misbach
54	2018-05-08T14:58:40	2018-05-17T15:26:37	Code Enforcement	35.2956877	-106.715827	2184 High Desert Cir NE, Rio Rancho, NM 87144	There is a bed, bed frame, and a lot of other items on the front porch and front of the house, these have been present since Friday. The homeowner is Kara Dawn Wraase. I would like to remain anonymous as they do live close to my address.	Closed	Bryan Misbach
55	2018-05-08T14:34:08	2018-05-11T14:49:02	Code Enforcement	35.2914238	-106.6368211	2001 Mim Ct NE, Rio Rancho, NM 87144	The recycling (green) bin for Waste management has been filled by the occupant with hundreds of pounds of non- recyclable rocks and yard waste. The axle has broken and the container has fallen over in the street. It has been in this condition now for over three weeks. I tried to move it today and found it too heavy for an individual to lift (I'm in good physical condition). The occupants have made no effort to clean it up. I would prefer anonymity on this complaint please (I live just down the street and don't need trouble). The bin is permanently out on the "curb" (dirt road). Be aware this house has more than 6 dogs, caution advised. They haven't jumped the fence in a while but they have succeeded in the past.	Closed	Sherrie Rice
56	2018-05-08T13:54:23	2018-05-14T08:57:42	Environmental Concerns	35.3192557	-106.5884914	7123 Wasilla Dr NE, Rio Rancho, NM 87144	The Waste Management trash truck has left a stream of oil in the street again. This is about the 5the time in 3 years they did this. The driver of the truck told me the company is negligent in repairing their leaking hydrolics in their trucks.	Closed	Xavier Pettes

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Colu	DateCreated	DateClosed	RequestType	Latitude	Longitude	Address	Description	Status Type	AssignedTo
57	2018-05-07T10:36:11	2018-05-07T14:10:00	Illegal Dumping	35.2462128	-106.7425038	420 Idalia Rd SW, Rio Rancho, NM 87124	3 mattresses	Closed	Zachariah Keintz
58	2018-04-27T16:18:15	2018-05-02T10:54:31	Illegal Dumping	35.2772677	-106.7033739	10th St NE, Rio Rancho, NM 87144	Discarded furniture on side of road between property wall and dirt road area.	Closed	Zachariah Keintz
59	2018-04-27T10:18:51	2018-07-06T09:48:35	Illegal Dumping	35.2427273	-106.7045826	1531 Glendale Ct SE, Rio Rancho, NM 87124	Large bicycle rack probably stolen from a school or business dumped in the arroyo north of Southern between Lisbon and Tarpon SE	Closed	Annie Easton
60	2018-04-25T11:57:43	2018-05-02T10:55:08	Illegal Dumping	35.2333512	-106.7296028	501 14th Ave SE, Rio Rancho, NM 87124	On 14 Ave, a bit down the road passed 5th street. 1 broken down couch, 1 broken easy chair, and other assortment of trash	Closed	Zachariah Keintz
61	2018-04-25T11:55:10	2018-05-02T10:55:29	Illegal Dumping	35.2264103	-106.7275429	424 Villa Rd SE, Rio Rancho, NM 87124	Two spots on Villa Rd, between 4th St and 18th Ave...2 twin mattresses and trash and further down Villa Rd is a black couch	Closed	Zachariah Keintz
62	2018-04-23T11:35:49	2018-05-07T11:30:32	Code Enforcement	35.2457199	-106.7188954	758 Hood Rd SE, Rio Rancho, NM, 87124	property is full of junk, occupant appears to be hoarding in front yard under carport .	Closed	David Branch
63	2018-04-20T19:05:50	2018-05-08T07:58:50	Environmental Concerns	35.3083634	-106.596165	6821 Kalgan Rd NE, Rio Rancho, NM 87144	REF: 6821 Kalgan Rd NE, 87144. The discharge of building material trash on the ground. There isn't a proper waste bin. The wind blows the trash all over the neighborhood.	Closed	Sherrie Rice
64	2018-04-20T19:01:32	2018-05-08T07:58:29	Environmental Concerns	35.3082438	-106.5956318	6829 Kalgan Rd NE, Rio Rancho, NM 87144	REF: 6825 Kalgan Rd NE, 87144. The discharge of building material trash on the ground. There isn't a proper waste bin. The wind blows the trash all over the neighborhood.	Closed	Sherrie Rice
65	2018-04-18T14:23:10	2018-04-25T05:52:19	Illegal Dumping	35.3576568	-106.6727991	Mineola Rd NE, Rio Rancho, NM, 87144	My husband and I live in Mariposa and pick up trash in Mariposa as well as the surrounding areas on a daily basis. We have noticed that a number of tires have been discarded on Mineola Rd NE - on the south side of the road between Towanda Rd NE & Patchogue NE and would appreciate their being disposed of properly. Thank you!	Closed	Alex Chavez
66	2018-04-15T13:54:55	2018-05-31T09:10:28	Code Enforcement	35.2582662	-106.7115356	60 Tarpon Ave SE, Rio Rancho, NM, 87124	At 60 Tarpon there is trash in the front yard in the form of broken cement including an old mailbox support with attached cement laying on the ground along with several plastic buckets and tumble weeds and other weeds.	Closed	Jimmy Chavez
67	2018-04-13T14:03:24	2018-04-17T06:13:11	Illegal Dumping	35.2415052	-106.6574514	4023 Southern Blvd SE, Rio Rancho, NM, 87124	Roll of carpet in the roadway/driveway near a bank close to the intersection of Southern Blvd and NM 528. Object is found when heading westbound on Southern. Received as a phone call, entered in by PW.	Closed	Alex Chavez
68	2018-04-13T07:44:57	2018-04-17T15:57:50	Code Enforcement	35.250165	-106.7408403	474 2nd St SW, Rio Rancho, NM, 87124	They leave their trash cans out in the street all week and the wind blows their trash everywhere. I'm tired of picking it up in my yard.	Closed	Bryan Misbach

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Colu	DateCreated	DateClosed	RequestType	Latitude	Longitude	Address	Description	Status Type	AssignedTo
69	2018-04-09T14:33:22	2018-05-14T16:51:36	Environmental Concerns	35.2376369	-106.6783774	3012 Walsh Loop SE, Rio Rancho, NM, 87124	Pulte homes has been littering the Neighborhood with construction material. On a daily basis my home, as well as others in the community, have been getting large quantities of construction material littered in the area. Pulte has stated that their receptacles do not need to be covered and they are not responsible for any littered material.	Closed	David Branch
70	2018-04-08T19:14:04	2018-04-12T08:23:11	Illegal Dumping	35.2749098	-106.6869986	1034 Dinadan Rd NE, Rio Rancho, NM, 87144	Dirt road - Take Northern Blvd NE to Dinadan Dr. NE (the big open area before Walgreens) Take Dinadan Dr. NE to Havencrest (It should be the second right 1/2 block to the dump site) There are two bags of garbage as well as the other stuff. I saw receipts through the bag hole that animals made. I don't know what kind of receipts. I put a tank over the bags after I took the pictures as a bunch of garbage was blowing away.	Closed	Zachariah Keintz
71	2018-04-05T16:49:41	2018-04-13T08:07:53	Illegal Dumping	35.3064752	-106.6307956	5147 28th Ave NE, Rio Rancho, NM, 87144	Once again there is a mattress, boxspring, and recliner on the dirt road of 28th street between Iris Road and the end of 28th Street at the Arroyo. The mattress and recliner are at a distance of 300' +/- from each other. Can your crew come to this road, once again to pick up these items. I really appreciate it. Seems like people are dumping more and more stuff on this street since I first started living here 7 years ago. I appreciate the help. Thank you!	Closed	Zachariah Keintz
72	2018-03-31T11:53:24	2018-04-06T15:45:48	Illegal Dumping	35.24159	-106.66003	3779 Southern Blvd SE, Rio Rancho, NM, 87124	Michael Ziegler flagged down Sergeant P. Rogahn of the Rio Rancho Police Department and reported that there are numerous 5 gallon containers of hydraulic fluid, some of which are leaking, located in the mesa area off undeveloped roads. The location provided was south of Hwy 550 and west of Chayote Rd NE. Michael Ziegler stated that he had already reported the issue about two months ago having spoken to "Zach" with Keep Rio Rancho Beautiful. Michael Ziegler stated that the issue has not been resolved as of March 31, 2018.	Closed	Zachariah Keintz
73	2018-03-22T10:39:27	2018-03-28T07:48:01	Illegal Dumping	35.277193	-106.7374674	121 El Camino Loop NW, Rio Rancho, NM, 87144	My family does not have a dog, but we frequently find mounds of dog feces in our trash can. Recently, we have also seen large items (metal bed frame, plastic Christmas tree, and a mop) in our trash cans that did not come from us. Are we now responsible for these items?	Closed	Sherrie Rice
74	2018-03-21T11:17:45	2018-04-13T08:09:46	Environmental Concerns	35.3029204	-106.7205155	770 26th Ave NE, Rio Rancho, NM, 87144	someone has dumped broken furniture and an old dog house at the west end of Nightglow Ave near Rainbow.	Closed	Zachariah Keintz
75	2018-03-21T08:18:43	2018-03-21T09:24:08	Code Enforcement	35.2486256	-106.7394063	101 Inca Rd SW, Rio Rancho, NM, 87124	Trash all over the yard and has never been picked up	Closed	David Branch
76	2018-03-19T15:04:09	2018-06-28T12:13:48	Code Enforcement	35.2474464	-106.7417106	242 Inca Rd SW, Rio Rancho, NM, 87124	an abandoned house and trash all over the property	Closed	David Branch

CitySourced Environmetal Concerns and Illegal Dumping - July 1, 2017-June 30, 2018

Colu	DateCreated	DateClosed	RequestType	Latitude	Longitude	Address	Description	Status Type	AssignedTo
77	2018-03-19T11:42:26	2018-03-20T08:42:31	Environmental Concerns	35.357287	-106.6832309	5900 Vista Manzano Ct NE, Rio Rancho, NM, 87144	Large pool of stagnant water from drainage pipe pooling in arroyo behind 5920 Vista Manzano area and trail. The pipe is not draining the water.	Closed	Tiffany Vigil
78	2018-03-19T11:06:46	2018-04-13T13:32:22	Environmental Concerns	35.357287	-106.6832309	5900 Vista Manzano Ct NE, Rio Rancho, NM, 87144	the large drainage pipe in the Arroyo behind this address is not draining properly and standing stagnant water is accumulating. It has a fair amount of water in it now and it's been two weeks since it rained. There appears to be a clogged as well as a grading problem where the water does not flow into the drainage pipe. This will attract mosquitoes snakes and create stagnant pools of water.	Closed	Xavier Pettes
79	2018-03-16T10:11:28	2018-03-21T05:36:16	Illegal Dumping	35.2345869	-106.6501799	Eileen Rd SE, Rio Rancho, NM, 87124	Someone tossed a box spring mattress along the back wall of a resident living at 1342 Mountain Vista Drive SE. The box spring is just off of the roadway on Eileen Road SE. Received as a phone call, entered in by PW.	Closed	Tiffany Vigil
80	2018-03-10T16:21:58	2018-04-11T11:32:11	Code Enforcement	35.2533031	-106.7085047	345 Tarpon Ave SE, Rio Rancho, NM, 87124	March 10, 2018 at 345 Tarpon there has been, for a week or two, two old couches setting out next the road and driveway.	Closed	Jimmy Chavez
81	2018-03-09T13:16:45	2018-05-17T07:57:11	Illegal Dumping	35.2428546	-106.7028666	Tarpon Ave SE, Rio Rancho, NM, 87124	Trash, glass, and trash bags near sidewalk on Tarpon Ave SE between Bunker Hill Ct SE and Glendale Ct SE. Received as a phone call, entered in by PW.	Closed	Alex Chavez
82	2018-03-05T16:32:06	2018-03-29T08:55:36	Environmental Concerns	35.3079865	-106.59591	6825 Kalgan Rd NE, Rio Rancho, NM, 87144	This was first reported Feb 7th under ID# 474717. This ID # was Closed on Feb 27th without any explanation. The Builder has still not complied with your citation to provide a 'Rollout' trash container. There is now only a 'make shift' box with a side completely open to the street. Wind blows trash down the street. Thanks for your attention to this issue.	Closed	Xavier Pettes
83	2018-03-05T12:45:56		Environmental Concerns	35.32391	-106.714279	1105 Desert Paintbrush Loop NE, Rio Rancho, NM, 87144	Building materials on side of house	In Process	Xavier Pettes
84	2018-03-04T10:59:21	2018-03-07T15:02:09	Illegal Dumping	35.2875261	-106.7207623	1728 8th St NE, Rio Rancho, NM, 87144	Busted-up washing machine dumped beside unpaved section of 8th Street. Also, further to the north are about four tire recaps at the intersection with what would be the unpaved part of Rachel Road.	Closed	Zachariah Keintz
85	2018-03-01T16:38:41	2018-03-06T09:21:14	Illegal Dumping	35.3199587	-106.5987087	6703 Franklin Rd NE, Rio Rancho, NM, 87144	Someone has dumped four trash bags full of household waste on the side of a dirt road near the end of Franklin Rd across from Sandia Vista Elementary School. I was able to get a name and address from one of the pieces of mail carelessly tossed in the trash. Mark A. Green 7113 Napoleon Rd NE Rio Rancho, NM 87144-4151. Please send someone to pick it up and fine Mr. Green for trashing Rio Ranchol	Closed	Bryan Misbach
86	2018-03-01T15:34:14	2018-03-06T08:56:00	Code Enforcement	35.2582618	-106.7115894	60 Tarpon Ave SE, Rio Rancho, NM, 87124	On 1March 2018 at 60 Tarpon there is a pile of wood trash piled up against the garage door.	Duplicate	Jimmy Chavez

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87	2018-03-01T13:10:35	2018-03-07T16:21:09	Illegal Dumping	35.2967728	-106.6362165	Idalia Rd NE, Rio Rancho, NM, 87144	Mattress south west of intersection.	Closed	Yvette Griego
88	2018-02-22T14:18:00	2018-03-20T09:42:22	Illegal Dumping	35.3076165	-106.7092235	3035 Zia Rd NE, Rio Rancho, NM, 87144	Droppings on street	Closed	Alex Chavez
89	2018-02-20T13:57:06	2018-02-27T13:19:56	Illegal Dumping	35.313725	-106.708458	3345 Cochiti Rd NE, Rio Rancho, NM, 87144	Dresser on easement for several weeks now	Closed	Bryan Misbach
90	2018-02-20T11:08:57	2018-02-23T20:43:45	Illegal Dumping	35.3072145	-106.6065778	6333 Idalia Rd NE, Rio Rancho, NM, 87144	DestroyedTrampoline on side of road	Closed	Zachariah Keintz
91	2018-02-20T10:56:46	2018-03-05T12:43:52	Illegal Dumping	35.2661063	-106.6371685	4830 Platinum Loop NE, Rio Rancho, NM, 87124	Over the back wall of the property the owner dumps wood stove ashes and coals on a daily basis. Reported this a month ago and was told the mess was cleaned up by the city. All the homeowner did was scatter the ashes and burnt coals out instead of piling them up. Once again homeowner is piling his waste up at the back of the property. When the wind blows these ashes coat the entire back porch of the adjacent home leaving a huge mess of coal pieces and ashes. Please have this inconsiderate mess cleaned up once and for all.	Closed	Jimmy Chavez
92	2018-02-19T16:04:28	2018-03-07T10:48:02	Environmental Concerns	35.28638	-106.6633273	1714 Lark Dr NE, Rio Rancho, NM, 87144	Street covered with car oil - enviromental concern.	Closed	Xavier Pettes
93	2018-02-19T13:15:28	2018-02-19T15:56:53	Environmental Concerns	35.3225234	-106.5755179	7850 Enchanted Hills Blvd NE, Rio Rancho, NM, 87144	I have put in a former complaint about my neighbor who lives at 6321 Vaughn dr ne, Rio Rancho. She has waste all over her yard, which, in turn, blows into our yard. With the weather conditions lately, the trash waste has spread to all over our neighborhood as she has a huge pile of trash sitting in her driveway as if her residence is a dump site. The waste is not placed in a trash bin. It's disgusting and I'm tired of her unsanitary ways impacting my life. The residue around the property attracts mice and extra creatures. Please do something about it, our neighborhood is going from a nice neighborhood to a dump!!!!!! She has three children and I could just imagine the living conditions inside the house.	Closed	Sherrie Rice
94	2018-02-18T18:25:41	2018-02-23T11:37:24	Illegal Dumping	35.3064419	-106.6413219	28th Ave NE, Rio Rancho, NM, 87144	If you drive the dirt road of 28th NE from Iris Road there is a dumping site down in the arroyo. The site is West of Taurus Road. The waste is carpet .	Closed	Zachariah Keintz
95	2018-02-18T18:25:24	2018-02-20T09:15:59	Illegal Dumping	35.3064419	-106.6413219	28th Ave NE, Rio Rancho, NM, 87144	If you drive the dirt road of 28th NE from Iris Road there is a dumping site down in the arroyo. The site is West of Taurus Road. The waste is carpet .	Closed	Zachariah Keintz
96	2018-02-18T18:01:41	2018-03-07T15:01:19	Illegal Dumping	35.3241162	-106.6477462	4404 Cayenne Rd NE, Rio Rancho, NM, 87144	Insulation and roofing materials dumped on Progress Blvd 1/4 mile West of Watermelon Mountain Ranch. :(	Closed	Zachariah Keintz
97	2018-02-18T08:55:53	2018-03-28T14:55:05	Code Enforcement	35.2761923	-106.6265695	5364 Vera Cruz Rd NE, Rio Rancho, NM, 87144	large trash items littering entire front yard	Closed	Sherrie Rice
98	2018-02-17T15:11:35	2018-02-21T16:10:07	Illegal Dumping	35.3379374	-106.585175	7198 Husky Dr NE, Rio Rancho, NM, 87144	Old couch visible when on Paseo del Volcan In the easement area.	Closed	Zachariah Keintz

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99	2018-02-15T20:43:31	2018-03-02T12:05:06	Illegal Dumping	35.3239843	-106.646862	Progress Blvd NE, Rio Rancho, NM, 87144	Trash dumped last night, with items similar that were dumped last weekend (and cleaned up by WM Thank You) Next to a previously reported pile containing a lawn mower and a barbeque. Please see the attached photos taken approximately 1030am 02/15/18	Closed	Zachariah Keintz
100	2018-02-15T13:52:59	2018-02-15T14:01:46	Illegal Dumping	35.3239493	-106.6468459	Progress Blvd NE, Rio Rancho, NM, 87144	Old Bar B Que smoker, lawn mower shelving and trash	Closed	Alex Chavez
101	2018-02-14T12:41:37	2018-06-27T11:56:45	Code Enforcement	35.258253	-106.7114979	60 Tarpon Ave SE, Rio Rancho, NM, 87124	60 Tarpon has a lot of junk wood and cement in front of the garage and front yard. This is in the wood working area next to his saw in front of the garage and used as a garbage dump area for years. It isn't easily disposed of on garbage pick-up days.	Closed	Jimmy Chavez
102	2018-02-12T15:42:25	2018-02-13T15:45:20	Illegal Dumping	35.351011	-106.6674989	5545 Unser Blvd NE, Rio Rancho, NM, 87144	box spring on west side of Unser Blvd just north of Mariposa Parkway and south of Mineola Road. I reported 2/5, but questions about exact location delayed response, I understand.	Closed	Zachariah Keintz
103	2018-02-12T14:15:21	2018-02-23T20:44:21	Illegal Dumping	35.339463	-106.603254	Augusta Hills Dr NE, Rio Rancho, NM, 87144	Going up Enchanted Hills Blvd just past Augusta Hills on the left there is a entrance out to the Arroyo. There is alot of dumping that needs to be cleaned up. It is straight out on the main path. I have additional photos if needed Thank you !	Closed	Zachariah Keintz
104	2018-02-11T21:23:48	2018-02-14T09:47:13	Code Enforcement	35.2383068	-106.6900724	1463 Peppoli Loop SE, Rio Rancho, NM, 87124	Residents moved out and left a huge pile of trash on the curb side and on the street.	Closed	David Branch
105	2018-02-11T17:26:01	2018-02-15T10:57:02	Illegal Dumping	35.3242294	-106.6512394	Progress Blvd NE, Rio Rancho, NM, 87144	Old barbque smoker, lawn mower, shelving, and trash	Closed	Alex Chavez
106	2018-02-11T17:23:13	2018-02-14T17:08:49	Illegal Dumping	35.3226538	-106.6313696	Progress Blvd NE, Rio Rancho, NM, 87144	Looks like debris from a reroofing somewhere including tar buckets and a 2 trucks of trash and waste from the operation.	Closed	Alex Chavez
107	2018-02-11T15:00:37	2018-02-14T17:17:03	Illegal Dumping	35.3227233	-106.6310968	Progress Blvd NE, Rio Rancho, NM, 87144	More white trash bags east of Watermelon Mountain Ranch on Progress Blvd. There are 2 piles about 50 feet apart. One can be seen from the road, the other pile is a little bit harder to see.	Closed	Zachariah Keintz
108	2018-02-11T14:43:14		Illegal Dumping	35.3241903	-106.6483343	4328 Cayenne Rd NE, Rio Rancho, NM, 87144	Once again there is a dump side on Progress BLvd 1/4 mile west of Watermelon Mountain Ranch.	Closed	Alex Chavez
109	2018-02-11T13:11:30	2018-02-14T17:09:38	Illegal Dumping	35.2581065	-106.7274692	5 5th St NE, Rio Rancho, NM, 87124	Commercial printer & scanner large & heavy on right fork ofSandia near 5th st on dirt road	Closed	Alex Chavez
110	2018-02-09T18:44:33	2018-02-16T13:06:07	Illegal Dumping	35.2200648	-106.7169642	2252 10th St SE, Rio Rancho, NM, 87124	Multiple bags of household trash dumbed right on the edge of the road.	Closed	Bryan Misbach
111	2018-02-09T18:43:24	2018-02-13T15:46:26	Illegal Dumping	35.2196397	-106.7147112	1021 Aspen Dr SE, Rio Rancho, NM, 87124	Car body parts have been dumped on the side of east side of the road. There is trash and an old water cooler on the west side of the street and a little further south.	Closed	Zachariah Keintz
112	2018-02-09T18:41:17	2018-02-20T09:19:19	Illegal Dumping	35.2210991	-106.7206228	810 Iguana Rd SE, Rio Rancho, NM, 87124	Somebody has dumped their household trash right in the middle of the road.	Closed	Zachariah Keintz

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113	2018-02-09T12:02:13	2018-02-13T15:47:20	Illegal Dumping	35.2902058	-106.7189169	846 19th Ave NE, Rio Rancho, NM, 87144	Found that someone dumped at mattress and box spring on 9th St near 19th Ave South of the arroyo. It's on the dirt road and hard to miss if on 9th. Also dumped a bunch of bags of garbage in the arroyo itself and a washing machine on 8th Street and south of18th Ave. If you can't find it contact me and I can help, thank you	Closed	Zachariah Keintz
114	2018-02-08T12:48:30	2018-03-20T12:33:07	Code Enforcement	35.318787	-106.725349	524 Soothing Meadows Dr NE, Rio Rancho, NM, 87144	Trash stored on front yard	Closed	Bryan Misbach
115	2018-02-08T08:33:39		Code Enforcement	35.3512465	-106.695423	1980 Castle Peak Loop NE, Rio Rancho, NM, 87144	New construction home of RayLee Builders at 1982 Castle Peak Loop NE. Trash all over the property which is blowing onto our property next door. There is no trash receptacle outside this new build.	In Process	Bryan Misbach
116	2018-02-07T17:20:02	2018-06-14T16:38:09	Code Enforcement	35.251726	-106.7058036	550 Tarpon Ave SE, Rio Rancho, NM, 87124	At 550 Tarpon, on the northeast corner of 5th street and Tarpon, there is garbage strewn next the an abandoned white vehicle that hasn't moved in years. The fence is broken on the south side in the front of the house. Even though this address is a Tarpon address it faces onto 5th street .	Closed	David Branch
117	2018-02-06T12:54:22	2018-02-19T15:36:13	Environmental Concerns	35.2938094	-106.7204136	2202 8th St NE, Rio Rancho, NM, 87144	The path at the end of 8th st. n.e. Is getting to much dog waste I'v been walking this path for 10 years.....now new people are letting their dogs do their business and leave it....getting hard to walk it now. PLEASE HELP KEEP RIO RANCHO CLEAN	Closed	Xavier Pettes
118	2018-02-05T11:25:39	2018-02-12T15:47:18	Illegal Dumping	35.356446	-106.6659705	Unser Blvd NE, Rio Rancho, NM, 87144	Very old box springs. only metal.	Closed	Zachariah Keintz
119	2018-02-03T16:16:12	2018-02-27T13:52:57	Environmental Concerns	35.3079865	-106.59591	6825 Kalgan Rd NE, Rio Rancho, NM, 87144	New home construction in proress, builder unknown. There is a Wire Bin that is overing. Workers are having to throw their trash on the ground. Winds are spreading trash in the arroyo behind the house and/or in front of the house to neighboring houses. Please contact thr builder to address this condition. Thanks so much	Closed	Bryan Misbach
120	2018-01-31T11:07:55	2018-02-16T10:07:20	Code Enforcement	35.2465715	-106.7338225	675 Bhutan Dr SE, Rio Rancho, NM, 87124	Loose trash on side of neighbor's house. The wind is blowing some of this trash onto my property. This has been a reoccurring problem for the pass nine years or so that she has lived next to me.	Closed	Bryan Misbach
121	2018-01-28T14:43:03	2018-01-30T10:25:15	Illegal Dumping	35.2842278	-106.6964572	Unser Blvd NE, Rio Rancho, NM, 87144	2 Mattresses on the side of the road	Closed	Alex Chavez
122	2018-01-27T11:00:51	2018-03-05T12:46:22	Code Enforcement	35.2520306	-106.6856078	340 Littler Dr SE, Rio Rancho, NM, 87124	On the driveway	Closed	Jimmy Chavez
123	2018-01-26T14:50:44	2018-02-23T11:38:13	Illegal Dumping	35.2923795	-106.6834778	2648 Norwich Ct, Rio Rancho, NM, 87144	Norwich ave NE and Monezuma blvd NE Take Monezuma blvd NE into the desert to next road and look to the right and you will see the dump site.	Closed	Zachariah Keintz
124	2018-01-25T12:20:32	2018-01-25T15:40:57	Illegal Dumping	35.2249138	-106.6604501	19th Ave SE, Rio Rancho, NM, 87124	TV is on the sidewalk on the west side of the roadway at the intersection of 19th Ave SE and NM 528. Received as a call from Dispatch, entered in by PW.	Closed	Yvette Griego

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125	2018-01-25T12:07:52	2018-02-19T15:29:05	Environmental Concerns	35.2555754	-106.6521558	4209 Saddlewood Trl SE, Rio Rancho, NM, 87124	Just letting you know that Waste Management's trucks are leaking excessive amounts of fluids from their trucks that service our street for trash and recycling. It's been going on a long time (well over a year) and it is an eyesore and an embarrassment. It makes my street look like a war zone. These guys want a raise to provide services and look at the mess they have been leaving. They need to clean up the street. I am submitting photos to the Observer as well.	Closed	Xavier Pettes
126	2018-01-22T11:53:02	2018-01-23T09:44:54	Illegal Dumping	35.3132473	-106.7285702	466 Medina Meadows Dr NE, Rio Rancho, NM, 87144	Household trash dumped at dead-end of Meadows. Approximately 15 black trash bags.	Closed	Zachariah Keintz
127	2018-01-19T12:37:09	2018-01-23T07:45:22	Illegal Dumping	35.322615	-106.5780225	Enchanted Hills Blvd NE, Rio Rancho, NM, 87144	Large duffle bag and lots of clothes near the intersection behind the bushes near the electrical on the southwest corner, not too far from the flags and sign.	Closed	Alex Chavez
128	2018-01-19T12:00:27	2018-02-16T13:52:30	Code Enforcement	35.2649941	-106.7330199	329 2nd St NE, Rio Rancho, NM, 87124	**TWO HOUSES IN A ROW ADDRESS NOT SPECIFIC BUT ON 2ND AVE SOUTH OF 5TH** ONE HAS LARGE PILE OF TRASH/TVS/FURNITURE IN YARD. ONE HAS TRAILER FULL OF TRASH IN DRIVE WAY. BOTH HAVE BEEN THERE FOR SEVERAL MONTHS!!!!	Closed	Jimmy Chavez
129	2018-01-18T19:46:01	2018-01-23T07:47:56	Illegal Dumping	35.289733	-106.6486001	Mahogany Rd NE, Rio Rancho, NM, 87144	Someone has dumped their trash (larger items) in the middle of the road. I run by this site three to five times a week and noticed it this weekend. I was able to sift around the garbage and find an address on a Bed Bath and Beyond mailing. I searched around and found another mailing with the same name and address in the garbage. That piece of mail is still at the site with their name and address on it. I have attached a copy of the mail I retrieved from the site. Also, the sheetrock pile was dumped there several months ago.	Closed	Yvette Griego
130	2018-01-16T15:18:22	2018-01-17T08:50:06	Illegal Dumping	35.2729995	-106.7229627	691 9th Ave NE, Rio Rancho, NM, 87124	a pickup trucks full of house hold trash and junk deposited in the road way this morning (1/16/2018). Found mail in trash with address and name.	Closed	Alex Chavez
131	2018-01-15T17:56:04	2018-02-07T10:30:19	Illegal Dumping	35.2661063	-106.6371685	4830 Platinum Loop NE, Rio Rancho, NM, 87124	Everyday the homeowner dumps the ashes and coals from his wood brining stive over his wall into the city arroyo behind his residence. Thanks is a huge pile of it. He also has four dogs and dumps all of the animal waste over his fence into the city arroyo.	Closed	Jimmy Chavez
132	2018-01-14T20:07:00	2018-01-16T08:16:47	Illegal Dumping	35.2627209	-106.7228222	257 7th St NE, Rio Rancho, NM, 87124	Illegally dumped trash in middle of 7th Street NE, south of 5th Avenue, taking up over half the road. Includes two addresses, one on an envelope, the other on a yard-sale sign. Photos attached.	Closed	Alex Chavez
133	2018-01-13T14:52:35	2018-06-14T16:34:45	Code Enforcement	35.2573375	-106.7102051	125 Tarpon Ave SE, Rio Rancho, NM, 87124	125 Tarpon has a front light pole with its cement base laying on the ground in front of the front door. It has been this way for many months. It is an abandoned home.	Closed	David Branch

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134	2018-01-13T14:45:46	2018-02-01T11:13:40	Code Enforcement	35.2568645	-106.7088479	160 Tarpon Ave SE, Rio Rancho, NM, 87124	160 Tarpon has a tire with rim leaning on the front of the house next to the garage (for weeks) plus trash and broken landscaping railroad ties in the front northwest corner of the property.	Closed	Bryan Misbach
135	2018-01-13T14:36:23	2018-01-16T08:13:03	Illegal Dumping	35.2626456	-106.7227398	120 7th St NE, Rio Rancho, NM, 87124	Trash just dumped since yesterday right in middle of road	Closed	Alex Chavez
136	2018-01-08T13:04:21	2018-01-09T15:49:15	Illegal Dumping	35.2761054	-106.7442369	303 10th Ave NW, Rio Rancho, NM, 87144	Household items dumped on 10th Ave. NW. Also, shingles dumped on same street.	Closed	Zachariah Keintz
137	2018-01-04T18:02:20	2018-03-28T14:55:52	Code Enforcement	35.3555202	-106.616538	5756 Quay Dr NE, Rio Rancho, NM, 87144	There is a plethora of trash riddling the front yard. It is unsightly, and is affecting my property because it's constantly blowing into my yard. It is at the address 5734 Quay Dr NE.	Closed	Sherrie Rice
138	2018-01-03T11:05:16	2018-01-18T10:26:33	Illegal Dumping	35.2494776	-106.7299438	511 Vancouver Rd SE, Rio Rancho, NM, 87124	The property is littered with mattresses and debris.	Closed	Bryan Misbach
139	2018-01-02T18:14:30	2018-01-03T09:04:10	Illegal Dumping	35.2468462	-106.7405338	120 Redwood Pl SW, Rio Rancho, NM, 87124	2 mattresses	Closed	Alex Chavez
140	2017-12-29T18:20:07	2018-01-09T09:29:33	Illegal Dumping	35.3210453	-106.6241547	Progress Blvd NE, Rio Rancho, NM, 87144	Couches and garbage along Dirt road of Iris and Progress Blvd.	Closed	Zachariah Keintz
141	2017-12-27T11:54:26	2017-12-27T16:23:35	Illegal Dumping	35.2580163	-106.7226923	4 7th St NE, Rio Rancho, NM, 87124	Lots of glass alcohol bottles, cardboard, trash. App wouldn't work for photo. By side of road corner 7th st NE & Sandia	Closed	Zachariah Keintz
142	2017-12-25T11:59:42	2017-12-27T14:02:39	Illegal Dumping	35.2881917	-106.7018688	17th Ave NE, Rio Rancho, NM, 87144	Brown sofa dumped on a dirt trail near the round about behind the fire station.	Closed	Zachariah Keintz
143	2017-12-24T17:13:51	2017-12-26T15:29:51	Code Enforcement	35.3552777	-106.6167006	5726 Quay Dr NE, Rio Rancho, NM, 87144	The front yard is constantly riddled with trash and occasionally food. The trash is not only unsightly, but is consistently ending up in our yard. The photo below shows some of the food that was recently in there. I was not able to get pictures of the trash without them seeing.	Closed	David Branch
144	2017-12-23T11:43:23	2018-02-13T10:02:27	Illegal Dumping	35.3079589	-106.6358812	Paseo del Volcan NE, Rio Rancho, NM, 87144	Tires, mattress, car seat, etc	Closed	Zachariah Keintz
145	2017-12-17T13:52:40	2017-12-27T13:38:52	Illegal Dumping	35.298967	-106.6042417	6348 Matamoros Rd NE, Rio Rancho, NM, 87144	On side of road: Portable TV; medium box of paper item trash, jug of water, wire hangers	Closed	Zachariah Keintz
146	2017-12-13T13:56:14	2017-12-19T16:29:39	Illegal Dumping	35.24645	-106.7037824	1690 Estrellita Rd SE, Rio Rancho, NM, 87124	BIG BOX SCREEN TV, HAS BEEN THERE FOR MORE THAN 2-3 WEEKS	Closed	Alex Chavez
147	2017-12-11T11:50:08	2017-12-12T11:36:31	Illegal Dumping	35.3004381	-106.661464	3725 Kim Rd NE, Rio Rancho, NM, 87144	test	Closed	Zachariah Keintz
148	2017-12-08T10:14:35	2017-12-12T14:22:23	Illegal Dumping	35.2886383	-106.6589427	3840 Rancher Loop NE, Rio Rancho, NM, 87144	mattress in open space next to 3840 Rancher Loop NE.	Closed	Zachariah Keintz
149	2017-12-01T14:34:17	2017-12-01T17:08:38	Illegal Dumping	35.3460798	-106.5972894	5285 Santa Fe Hills Blvd NE, Rio Rancho, NM, 87144	Boards in the intersection of Santa Fe Hills Blvd NE and NM 550. Received as a phone call, entered in by PW.	Closed	Alex Chavez
150	2017-12-01T14:28:44		Environmental Concerns	35.3077097	-106.5934646	7000 Kalgan Rd NE, Rio Rancho, NM, 87144	There is a home construction crew hooking up to the fire hydrant and hose the lot flat on the 7000 block of Kalgan Rd NE.	In Process	Victoria Garcia
151	2017-11-29T20:10:09	2017-12-12T08:35:21	Illegal Dumping	35.2741434	-106.6898203	2301 Chessman Dr NE, Rio Rancho, NM, 87124	South side of Northern, east of Calor there is a mattress on side of road.	Closed	Zachariah Keintz

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Colu	DateCreated	DateClosed	RequestType	Latitude	Longitude	Address	Description	Status Type	AssignedTo
152	2017-11-29T13:12:50	2017-11-30T14:15:01	Illegal Dumping	35.2311779	-106.6962576	Unser Blvd SE, Rio Rancho, NM, 87124	There is carpet and various car parts scattered along the median on Unser Blvd between Westside Blvd and Southern Blvd. Received as a phone call, entered in by PW.	Closed	Yvette Griego
153	2017-11-26T13:41:38	2017-11-28T16:33:34	Illegal Dumping	35.3239504	-106.6467479	Progress Blvd NE, Rio Rancho, NM, 87144	There are white trash bags all over the road full of garbage. Can someone clean them up please?	Closed	Zachariah Keintz
154	2017-11-18T12:23:11	2017-11-27T09:12:59	Illegal Dumping	35.3038266	-106.7114764	2798 Falda Rd NE, Rio Rancho, NM, 87144	discarded Box spring on roadway	Closed	Alex Chavez
155	2017-11-16T17:45:36	2017-11-21T16:46:12	Illegal Dumping	35.2580077	-106.7222857	4 7th St NE, Rio Rancho, NM, 87124	Re: Service Request ID# 449005 The rotting meat is on Sandia Blvd. between 7th ST NE and 8th ST NE, closer to 7th ST than to 8th. I saw it on my walk this afternoon at 4:00 so it's still there. Someone has dragged some yard waste over it to it's harder to spot. If your crew got out of their truck, they'd smell it. From the intersection of Northern and Unser, take Northern west to 10th Street, turn south on 10th to 5th Avenue, turn west on 5th Avenue to 7th Street, turn south on 7th street and go 1/2 mile to Sandia Blvd. The meat is about 30 yards east on Sandia. I would be happy to meet the crew and show them where this is located. I'm retired and my time is flexible. 892-6150 or 358-8758. There are several discarded tires in the immediate area they could pick up, too. One tire is on 7th street a little further south of Sandia Blvd. And further east on Sandia, past the rotting meat at about the 8th Street intersection, are 4 tires.	Closed	Alex Chavez
156	2017-11-14T11:58:24		Illegal Dumping	35.3104661	-106.6851362	3200 Civic Center Cir NE, Rio Rancho, NM, 87144	Roofing Materials	On Hold	Zachariah Keintz
157	2017-11-14T10:37:45	2017-11-28T09:10:33	Illegal Dumping	35.3064455	-106.614996	2560 Lacuma Rd NE, Rio Rancho, NM, 87144	50 feet off Road. An old wooden closet	Closed	Zachariah Keintz
158	2017-11-13T17:57:35	2017-11-16T06:50:57	Illegal Dumping	35.2581654	-106.7217064	5 8th St NE, Rio Rancho, NM, 87124	Someone dumped quite a bit of meat in the road. It is wrapped in white butcher paper, as though it came from a locker. It's getting rank. Coyotes, stray pets, etc. will be on it soon.	Closed	Alex Chavez
159	2017-11-13T17:21:51	2017-11-30T12:40:52	Illegal Dumping	35.2107736	-106.7361259	Albuquerque, NM, 87114	It looks like people are illegally dumping shingles in this area.	Closed	Zachariah Keintz
160	2017-11-08T10:18:39	2018-04-06T06:14:37	Illegal Dumping	35.2422566	-106.688911	2345 Southern Blvd SE, Rio Rancho, NM, 87124	Behind the strip mall, Baskin Robins W/M bin- off of Lariat. You can see all the nasty couches and trash directly from the residential road Buckboard! It's horrible and it's clustering more illegal trash! A definite eye sore. W/M won't pick up and apparently no one else has reported it! I contacted Chris with "keep Rio Rancho beautiful" but apparently it's out of his way to do anything about it. So please get it taken care of as it's been about 4 weeks!	Closed	Jimmy Chavez
161	2017-11-07T12:17:59	2017-11-09T12:22:58	Illegal Dumping	35.3102926	-106.5883785	Camino Encatadas, Rio Rancho, NM, 87144	A lot of U-haul boxes. Magazines with addresses, etc	Closed	Zachariah Keintz

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Colu	DateCreated	DateClosed	RequestType	Latitude	Longitude	Address	Description	Status Type	AssignedTo
162	2017-11-07T08:58:06	2017-11-29T14:24:56	Code Enforcement	35.2725595	-106.6072256	6131 Cottontail Rd NE, Rio Rancho, NM, 87144	Old sofa has been sitting in front yard for 2 weeks.	Closed	Sherrie Rice
163	2017-10-31T13:48:37	2017-10-31T16:42:02	Illegal Dumping	35.3060024	-106.6151637	6026 Idalia Rd NE, Rio Rancho, NM, 87144	Loveseat & cushions up on the gravel road on Lacuma off Idalia Rd NE	Closed	Zachariah Keintz
164	2017-10-24T13:09:24	2017-10-26T08:15:55	Illegal Dumping	35.2945887	-106.6040325	2111 Chihuahua Rd NE, Rio Rancho, NM, 87144	large bag of garbage & a box of what looks like recycling	Closed	Alex Chavez
165	2017-10-24T07:48:09		Environmental Concerns	35.3427245	-106.6094409	5016 Frontier Rd NE, Rio Rancho, NM, 87144	Landscape irrigation in NE corner of property is discharging a copious amount of water into the right of way each morning. Home may be vacant; irrigation not being monitored.	In Process	Victoria Garcia
166	2017-10-22T12:11:23	2017-11-13T12:03:29	Code Enforcement	35.2701681	-106.6499289	388 Pyrite Dr NE, Rio Rancho, NM, 87124	Front yard full of trash and junk.	Closed	Jimmy Chavez
167	2017-10-20T08:52:17	2017-10-26T11:10:25	Illegal Dumping	35.2864582	-106.675013	1735 Bedivere St NE, Rio Rancho, NM, 87144	The dumpsite consists of house hold trash. There are identifiers inside of the cardboard box.	Closed	Bryan Misbach
168	2017-10-19T13:05:22	2017-10-20T09:24:07	Illegal Dumping	35.2824816	-106.6750145	1489 Bedivere St NE, Rio Rancho, NM, 87144	Illegal household dump, misc items. 2 pics attached.	Closed	Zachariah Keintz
169	2017-10-17T14:11:33	2017-10-19T14:45:37	Illegal Dumping	35.2950905	-106.6462513	4415 Bolo Dr NE, Rio Rancho, NM, 87144	The dumpsite consists of house hold trash. There are identifiers inside of the cardboard box.	Closed	Sherrie Rice
170	2017-10-16T11:22:12	2017-10-17T11:16:37	Code Enforcement	35.3410772	-106.6031661	6452 Coventry Hills Dr NE, Rio Rancho, NM, 87144	Weeds, tumble weeds piled high which are a fire threat to the entire neighborhood THE FIRE DEPTMENT WILL VERIFY THAT & delapiated chair cushions. It has been almost 4 months now since the original complaint. WHY IS NOTHING BEEN DONE! Is she a foreign diplomat & above the law?? How can you allow a renter to devaluate all the surroundin property? WHY DO I PAY OVER $1900 A YEAR IN TAXES FOR??? PLEASE ANSWER MY QUESTIONS! I'm tired of this game.	Closed	Sherrie Rice
171	2017-10-13T06:57:59	2017-10-17T12:05:59	Illegal Dumping	35.3287041	-106.7113638	Progress Blvd NE, Rio Rancho, NM, 87144	Dumpsite on the north side of Progress Blvd. about 3/4 of a mile west when turning off from Unser Blvd. Trash bags, hazardous material bags, mixed with other miscellaneous household items.	Closed	Zachariah Keintz
172	2017-10-09T09:27:12	2017-12-05T12:02:11	Illegal Dumping	35.2942231	-106.5986842	2220 Monterrey Rd NE, Rio Rancho, NM, 87144	Dirt was dumped into drainage ditch in front of my house.	Closed	Tiffany Vigil
173	2017-10-02T10:16:45	2018-07-06T09:36:23	Illegal Dumping	35.247864	-106.687691	331 Wagon Train Dr SE, Rio Rancho, NM, 87124	Someone has dumped trash near the arroyo . There's 2 kennels and other items .	Closed	Annie Easton
174	2017-09-29T20:55:52	2017-10-03T15:32:55	Illegal Dumping	35.2839792	-106.7061925	1592 Pine Rd NE, Rio Rancho, NM, 87144	A discarded tire has been laying beside the sidewalk for a week or more. It had been in the road until I moved it. Also, a little further east on Pine Road, in the brush on the other side of the three houses, there is some household junk dumped beside the sidewalk.	Closed	Zachariah Keintz
175	2017-09-29T08:21:11	2017-11-21T14:47:15	Code Enforcement	35.247005	-106.734543	675 Vancouver Rd SE, Rio Rancho, NM, 87124	Old tiers and car parts on east side of driveway in front yard	Closed	Charlie Lopez

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Colu	DateCreated	DateClosed	RequestType	Latitude	Longitude	Address	Description	Status Type	AssignedTo
176	2017-09-27T15:21:49	2017-10-05T06:17:07	Code Enforcement	35.245216	-106.7133057	771 Comanche Rd SE, Rio Rancho, NM, 87124	The house on this lot was abandoned for 5 - 9 years and sold about 12 months ago. The owner is remodeling it. There has been refuse, possible dangerous items..freezer with lock tops etc and refuse (wallboard, wood, furniture) piled in year. It has become large and a "dump" with none of it hauled off. It is dangerous for children, a health hazard and a shelter for varmits. This has continued for 7 - 10 months with no effort for removal. Is this covered under the City Ordainence for refuse, health and safety.	Closed	Charlie Lopez
177	2017-09-26T11:01:49	2018-04-06T06:15:17	Illegal Dumping	35.2422631	-106.6889083	2345 Southern Blvd SE, Rio Rancho, NM, 87124	Furniture has been dumped beside a commercial dumpster on Lariat. Many of the dumpsters along Lariat east of Western Hills are victims of illegal dumping that frequently isn't cleaned up. I realize it's a burden for the businesses but it's an eyesore and encourages more illegal dumping. Maybe gates could be put up to keep people out?	Closed	Jimmy Chavez
178	2017-09-26T10:17:31	2018-04-06T06:15:44	Illegal Dumping	35.242965	-106.691716	2249 Lariat Rd SE, Rio Rancho, NM, 87124	at buckboard rd and lariat as well as all dumpsters along Lariat..there are discarded large recliner chairs that have been there for a while. It is unsightly to look at and is a blight on the neighborhood.	Closed	Jimmy Chavez
179	2017-09-25T10:19:49	2018-02-07T15:15:50	Illegal Dumping	35.2701839	-106.6695315	Rio Rancho, NM, 87124	Illegal dumping off of moccasin near aquifer injection facility.	Closed	Alex Chavez
180	2017-09-22T14:15:51	2017-10-13T07:40:29	Code Enforcement	35.3111586	-106.7076173	1444 Isleta Ct NE, Rio Rancho, NM, 87144	1444 Isleta Court NE, Rio Rancho residents told to clean up dog feces, weeds, trash, debri from backyard. Residents raked all these items to the back of their house causing a HEALTH HAZARD. Mice and insects are seen and will go to neighboring houses.	Closed	Bryan Misbach
181	2017-09-22T10:00:16	2017-09-22T10:29:39	Illegal Dumping	35.2771029	-106.740341	44 El Camino Loop NW, Rio Rancho, NM, 87144	Not at 44 El Camino. Just west of Edinburgh St. NE on North side of Northern.	Closed	Zachariah Keintz
182	2017-09-22T09:59:17	2017-09-22T10:29:22	Illegal Dumping	35.2771029	-106.740341	44 El Camino Loop NW, Rio Rancho, NM, 87144	Not at 44 El Camino. Just west of Edinburgh St. NE on North side of Northern.	Closed	Zachariah Keintz
183	2017-09-22T09:57:39	2017-09-25T14:10:15	Illegal Dumping	35.2771029	-106.740341	44 El Camino Loop NW, Rio Rancho, NM, 87144	Not at 44 El Camino. Just west of Edinburgh St. NE on North side of Northern.	Closed	Yvette Griego
184	2017-09-22T09:56:59	2017-09-22T10:28:44	Illegal Dumping	35.2771029	-106.740341	44 El Camino Loop NW, Rio Rancho, NM, 87144	Not at 44 El Camino. Just west of Edinburgh St. NE on North side of Northern.	Closed	Zachariah Keintz
185	2017-09-21T18:51:37	2017-10-03T15:31:39	Illegal Dumping	35.2179656	-106.6868738	Black Arroyo Blvd NW, Rio Rancho, NM, 87124	Sofa and other trash dumped	Closed	Zachariah Keintz
186	2017-09-21T11:19:02	2017-09-27T12:47:30	Illegal Dumping	35.2429281	-106.7409267	735 2nd St SW, Rio Rancho, NM, 87124	Stripped TV dumped on city property. Part of the stripped TV (mostly wood board pieces) are on the ledge adjacent to the TV.	Closed	Zachariah Keintz
187	2017-09-20T15:59:48	2017-09-22T08:07:19	Illegal Dumping	35.2771029	-106.740341	44 El Camino Loop NW, Rio Rancho, NM, 87144	Not at 44 El Camino. Just west of Edinburgh St. NE on North side of Northern.	Closed	Zachariah Keintz
188	2017-09-20T15:59:41	2017-09-21T08:04:18	Illegal Dumping	35.2771029	-106.740341	44 El Camino Loop NW, Rio Rancho, NM, 87144	Not at 44 El Camino. Just west of Edinburgh St. NE on North side of Northern.	Closed	Zachariah Keintz

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Colu	DateCreated	DateClosed	RequestType	Latitude	Longitude	Address	Description	Status Type	AssignedTo
189	2017-09-20T15:58:47	2017-09-21T08:04:56	Illegal Dumping	35.2771029	-106.740341	44 El Camino Loop NW, Rio Rancho, NM, 87144	Not at 44 El Camino. Just west of Edinburgh St. NE on North side of Northern.	Closed	Zachariah Keintz
190	2017-09-19T14:18:44	2017-09-20T08:18:17	Illegal Dumping	35.274246	-106.683426	Fruta Rd NE, Rio Rancho, NM, 87124	Set of mattress' on west side of Fruta just south of eagle ridge middle school	Closed	Zachariah Keintz
191	2017-09-18T11:14:53	2017-10-04T10:36:01	Code Enforcement	35.315224	-106.718834	3400 Elder Meadows Dr NE, Rio Rancho, NM 87144	Stored trash on trailer.	Closed	Bryan Misbach
192	2017-09-18T09:07:49		Environmental Concerns	35.3565994	-106.6799033	2200 Patchogue Rd NE, Rio Rancho, NM 87144	The waste water station near Mariposa community located at Emma Court and Patchogue Road NE has a very loud noise that is disturbing the homeowners in the area about 10 to 18 hours a day. I believe that the city is in violation of the Environmental Noise Regulations 2006 which give effect to EU Directive 2002/49/EC on the assessment and management of environmental noise. I used to work with the EPA in another state in getting entities and organizations compliant with the EPA standards, so I know a little about getting the EPA out to help those who violate their codes. There needs to be a noise barrier around the facility to eliminate the noise. Rio Rancho is a beautiful place to live and the city has advertised that they are an environmentally progressive community, so I would hope the city will stick to their advertised word and help stop the nuisance noise that disturbs our peaceful community.	In Process	Annemarie Garcia
193	2017-09-17T18:34:11	2017-09-20T08:19:23	Illegal Dumping	35.2334433	-106.7282993	501 14th Ave SE, Rio Rancho, NM 87124	Saw a large white Dodge or Chevy pickup with trash in the bed drive by my house. Went for a bike ride shortly after and found the trash dumped partially in the road about 1500ft west of (14th Ave SE + 5th St SE) on 14th Ave. Myself and lots of my neighbors use this road for walking, running and riding bikes everyday. Thanks in advance for sending out a crew to relocate it to the dump.	Closed	Zachariah Keintz
194	2017-09-16T13:35:45	2017-11-09T16:51:37	Illegal Dumping	35.2267097	-106.7289091	412 4th St NE, Rio Rancho, NM 87124	These are all chemicals up the Arroyo from the other three dump sites that were reported as one before	Closed	Zachariah Keintz
195	2017-09-16T13:28:27	2017-10-11T14:40:14	Illegal Dumping	35.2263277	-106.7282027	416 Villa Rd SE, Rio Rancho, NM 87124	Pick up some of the several sites right here that require a backhoe front end loader to pick up all the debris environmental waste	Closed	Zachariah Keintz
196	2017-09-15T09:17:13	2017-09-19T11:23:34	Illegal Dumping	35.303113	-106.5898597	7024 Vatapa Rd NE, Rio Rancho, NM 87144	NW corner of intersection - large square pieces of wood, and yard waste. Some waste in bags and some is loose.	Closed	Zachariah Keintz

Colu	DateCreated	DateClosed	RequestType	Latitude	Longitude	Address	Description	Status Type	AssignedTo
197	2017-09-15T09:04:10	2017-10-04T07:25:23	Code Enforcement	35.2452604	-106.6882183	711 Stallion Rd SE, Rio Rancho, NM 87124	The people that live there have had mattresses in the area, what seems to be a head board hanging off the curb of their address, now this box of junk that flies around often in other neighbors area, I helped the conjoining owner the day before last throw back items to the address. Now there is baby items that are in the driveway area, which will eventually end up in the street. The mattresses have been an issue for approximately the past month. When it rains it smells from the mattresses. When will this stop, wherever these people came from, they need to understand this neighborhood takes pride in their yards and area that this is taking us down.	Closed	Bryan Misbach
198	2017-09-14T18:47:09	2018-02-07T15:09:02	Illegal Dumping	35.346611	-106.621834	McCarthy Rd NE, Rio Rancho, NM 87144	2nd request for this haz-mat to be picked up. I'm concerned someone will come along and dump the motor oil on the ground.	Closed	Alex Chavez
199	2017-09-14T13:46:29	2017-09-14T13:48:48	Illegal Dumping	35.2545504	-106.7061659	325 Lisbon Ave SE, Rio Rancho, NM 87124	This is a dump in the nth. degree rear of property is unsafe and is a health hazard. re.ID364448 This is a follow up.	Closed	Zachariah Keintz
200	2017-09-14T13:26:08	2017-09-19T13:36:59	Illegal Dumping	35.2545504	-106.7061659	325 Lisbon Ave SE, Rio Rancho, NM 87124	This property is needs to be looked at for unsafe conditions. This is a follow up to ID.#36448 When I asked for a update I was informed that this issue was closed. Well it is not and no action has been taken.	Duplicate	Charlie Lopez
201	2017-09-14T13:25:47	2017-10-04T07:26:06	Code Enforcement	35.314556	-106.723793	3487 Hunters Meadows Cir NE, Rio Rancho, NM 87144	Stored trash and debris on side of home.	Closed	Bryan Misbach
202	2017-09-11T10:17:40	2017-09-13T10:16:06	Illegal Dumping	35.274094	-106.70298	900-998 Acal Pl NE, Rio Rancho, NM 87124	Couch on side of road	Closed	Zachariah Keintz
203	2017-09-10T16:37:52	2017-09-13T10:18:20	Illegal Dumping	35.2770555	-106.7403849	44 El Camino Loop NW, Rio Rancho, NM 87144	Discarded sofa just up the hill on the south side of Northern as you are coming up from Unser. About a one minute drive and just above Acorn Dr. NOT at 44 El Camino Loop NW.	Closed	Zachariah Keintz
204	2017-09-10T16:37:45	2017-09-12T10:34:38	Illegal Dumping	35.2770555	-106.7403849	44 El Camino Loop NW, Rio Rancho, NM 87144	Discarded sofa just up the hill on the south side of Northern as you are coming up from Unser. About a one minute drive and just above Acorn Dr. NOT at 44 El Camino Loop NW.	Closed	Zachariah Keintz
205	2017-09-10T16:36:42	2017-09-12T10:34:57	Illegal Dumping	35.2770555	-106.7403849	44 El Camino Loop NW, Rio Rancho, NM 87144	Discarded sofa just up the hill on the south side of Northern as you are coming up from Unser. About a one minute drive and just above Acorn Dr. NOT at 44 El Camino Loop NW.	Closed	Zachariah Keintz
206	2017-09-05T19:58:18	2017-09-06T13:50:32	Illegal Dumping	35.2809445	-106.6117626	1120 NM-528, Rio Rancho, NM 87124	large black bag of trash next to barrier on west side of 528 heading south just north of Mile Marker 11, north of Obregon.	Closed	Zachariah Keintz
207	2017-09-05T18:56:23	2017-09-14T07:01:41	Code Enforcement	35.2553117	-106.7049654	280 Lisbon Ave SE, Rio Rancho, NM 87124	A citizen has reported to City Administration large amounts of trash at 280 Lisbon Avenue.	Closed	Charlie Lopez
208	2017-09-05T18:54:38	2017-09-14T06:57:57	Code Enforcement	35.2557927	-106.7046594	260 Lisbon Ave SE, Rio Rancho, NM 87124	A citizen has reported to City Administration large amounts of trash at 260 Lisbon Avenue.	Closed	Charlie Lopez

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Colu	DateCreated	DateClosed	RequestType	Latitude	Longitude	Address	Description	Status Type	AssignedTo
209	2017-09-05T09:56:08	2017-09-05T10:02:48	Illegal Dumping	35.3218834	-106.6118431	Oerview Rd NE, Rio Rancho, NM 87144	Labor Day weekend Trash Dump Old Mattress and couch recliner dumped in the arroyo	Closed	Zachariah Keintz
210	2017-09-04T09:17:00	2017-09-06T08:39:08	Code Enforcement	35.3120367	-106.7233529	605 Santa Fe Meadows Dr NE, Rio Rancho, NM 87144	Trash still there at my front door for months and trash day was today. They did not bother to pick it up. Just tried to hide it.	Closed	Bryan Misbach
211	2017-09-01T15:54:48	2017-09-27T11:15:29	Illegal Dumping	35.346573	-106.621857	McCarthy Rd NE, Rio Rancho, NM 87144	Clandestine dump site. Appears to be used motor oil.	Closed	Zachariah Keintz
212	2017-08-30T13:39:10	2017-09-06T09:43:41	Code Enforcement	35.3120233	-106.7233343	605 Santa Fe Meadows Dr NE, Rio Rancho, NM 87144	Neighbors have had trash piled up by my front door for months. Now instead of picking up the trash, they have placed a rat trap. The neighborhood association has done nothing and my wife and I are elderly and concerned about the rats. We don't want the plague or junta virus. I am going to take legal action if this is not taken care of. Please help!	Closed	Bryan Misbach
213	2017-08-28T15:44:43	2017-08-30T15:47:50	Illegal Dumping	35.2251132	-106.7283797	2021 Villa Rd SE, Rio Rancho, NM 87124	Found illegal dumping while running me dog. Checked out pile and found 2 pieces of correspondence with the address of, I am assuming, the people responsible for the trash.	Closed	Zachariah Keintz
214	2017-08-28T11:46:39	2017-08-29T09:52:52	Code Enforcement	35.310764	-106.721046	713 Santa Fe Meadows Dr NE, Rio Rancho, NM 87144	Stored trash,building materials on trailer. I believe that rodents are living in the debris.	Closed	Bryan Misbach
215	2017-08-28T11:42:53	2017-10-03T10:42:27	Code Enforcement	35.2518248	-106.6773822	275 Chaparral Loop SE, Rio Rancho, NM 87124	Serious heath hazard. 604 Hermit Falls, RR, 87124. Please assign highest possible priority.	Closed	Jimmy Chavez
216	2017-08-25T19:55:52	2017-08-30T15:46:18	Illegal Dumping	35.3060199	-106.6532135	28th Ave NE, Rio Rancho, NM 87144	5 or 6 black garbage bags full of trash or other debris on south side of Paseo de Volcane. One just east of Broadmoor, others farther east toward Iris. This was 2 days ago so may have been reported previously.Thanks!	Closed	Zachariah Keintz
217	2017-08-25T19:52:08	2017-08-30T15:47:06	Illegal Dumping	35.2836026	-106.6779327	Hedingham Avenue Northest, Rio Rancho, NM 87144	Queen size mattress on west side of Broadmoor	Closed	Zachariah Keintz
218	2017-08-25T13:49:51	2018-02-07T15:14:28	Illegal Dumping	35.253176	-106.6982603	52-498 19th St SE, Rio Rancho, NM 87124	Citizen report of illegal dumping on right of way and on roadway along 19th street SE from the west side of 300 Unser Blvd SE (Local Brewhouse) to 2nd street SE. I checked the illegal dump sites and found furniture, trash, yard waste and household items.	Closed	Alex Chavez
219	2017-08-23T10:18:54	2018-07-06T09:34:57	Illegal Dumping	35.2946719	-106.6556597	2208 Kaiser Rd NE, Rio Rancho, NM 87144	Various furniture dump, mattresses, tables, couches, broken TV's, mail, paperwork. This junk is located between Aloe Circle and Corrales Roads. There's also a discarded sofa in the arroyo on the right side of Loma Colorado.	Closed	Annie Easton
220	2017-08-21T16:50:58	2017-08-22T15:58:43	Illegal Dumping	35.265182	-106.719978	5th Ave NE, Rio Rancho, NM 87124	Someone dumped a grill on the side of 5th Avenue NE, between 9th Street and 8th St., NE, on the south side of the road this past weekend.	Closed	Yvette Griego
221	2017-08-21T15:36:25	2017-09-19T08:03:29	Code Enforcement	35.2411328	-106.6501075	103 Alta Vista Ct SE, Rio Rancho, NM 87124	Illegal dumping persists in drainage area owned by private property. Please have area cleaned ASAP by responsible party. Resident has requested a call from Officer ASAP to discuss. Call between the hours of 8am - 2pm.	Closed	David Branch

CitySourced Environmetal Concerns and Illegal Dumping - July 1, 2017-June 30, 2018

Colu	DateCreated	DateClosed	RequestType	Latitude	Longitude	Address	Description	Status Type	AssignedTo
222	2017-08-21T15:31:23	2017-09-19T08:04:19	Code Enforcement	35.2413146	-106.650483	1050-1060 Meadowlark Ct SE, Rio Rancho, NM 87124	Illegal dumping persists in drainage area owned by apartment owners. Please have area cleaned ASAP by responsible party. Resident has requested a call from Officer ASAP to discuss. Call between the hours of 8am - 2pm.	Closed	David Branch
223	2017-08-21T14:52:18		Code Enforcement	35.2502177	-106.7147602	620 Ivory Rd SE, Rio Rancho, NM 87124	Residents says that this property has junk in the front and side yard and that they regularly sell things in front of their home.	Closed	Charlie Lopez
224	2017-08-21T14:42:08	2017-09-29T14:47:32	Code Enforcement	35.2525305	-106.7229846	310 Vancouver Rd SE, Rio Rancho, NM 87124	Resident says that this house is in poor condition ad has junk piled on the porch.	Closed	Charlie Lopez
225	2017-08-21T14:40:02	2017-09-29T14:45:52	Code Enforcement	35.25296	-106.722098	305 Vancouver Ct SE, Rio Rancho, NM 87124	Resident states that property is in very bad shape: roof needs to be replaced, mouse infestation, carpet and furniture outside of house, needs to be painted.	Closed	Charlie Lopez
226	2017-08-21T13:14:53	2017-08-22T15:56:21	Illegal Dumping	35.332848	-106.586929	Torino Hills Rd NE, Rio Rancho, NM 87144	Foam pad encased in black plastic dumped on sidewalk next to homeowners wall.	Closed	Yvette Griego
227	2017-08-21T12:46:43	2017-08-28T08:11:52	Code Enforcement	35.23912	-106.650482	1109 Meadowlark Way SE, Rio Rancho, NM 87124	Trash comes on Thursday and every week these cans are left on the road with lids open.... can someone tell them that like everyone else here that they need to be off the road.... animals are now coming around and there and many children here.... also look at 1101 meadowlark way. ThanksRick	Closed	David Branch
228	2017-08-20T20:10:25	2017-10-11T14:41:03	Illegal Dumping	35.2260247	-106.7284119	416 Villa Rd SE, Rio Rancho, NM 87124	Two illegal dumpsites near Villa Rd. Mattresses, shattered tub, burnt couch, glass shower doors, tires, etc. Please see map. First dumpsite is on Villa Rd, in arroyo just west of 4th St SE intersection. Second dumpsite is on 19th Ave SE, just west of Villa Rd	Closed	Zachariah Keintz
229	2017-08-18T14:50:12	2017-09-19T16:15:59	Illegal Dumping	35.2429259	-106.7410992	735 2nd St SW, Rio Rancho, NM 87124	Trash and shopping cart that was dumped next to the hole in the wall on 8/18/17 by the illegal resident of 127 Oakwood Ct. SW so he can hide his comings and goings from the property and gain illegal access to said property. Streets and Right of Way removed the dirt ramp on 8/17/17 that was previously being used by the illegal occupant.	Closed	Yvette Griego
230	2017-08-17T13:35:45		Illegal Dumping	35.2536185	-106.6904211	2356 Lema Rd SE, Rio Rancho, NM 87124	People have been dumping their trash in the arroyo between Western Hills and Spring and the arroyo between Spring and Lema (close to the drain). A neighbor has dumped some of their debris behind my fence. I walked the arroyo and noticed that a lot of people are dumping over their fences. This is a fire hazard. Also noticed when walking down Lema that their are over gowth of large weeds from the arroyo off of Lema growing into the road. People that walk have to go into the road way to move away from the over growth of weeds.	In Process	Annie Easton
231	2017-08-15T19:12:53	2017-08-18T16:12:34	Illegal Dumping	35.2575673	-106.6570169	12 Monte Vista Dr NE, Rio Rancho, NM 87124	Trash in arroyo near Loma colorado subdivision and recreation parks	Closed	Alex Chavez

CitySourced Environmetal Concerns and Illegal Dumping - July 1, 2017-June 30, 2018

Colu	DateCreated	DateClosed	RequestType	Latitude	Longitude	Address	Description	Status Type	AssignedTo
232	2017-08-14T14:08:29	2017-08-15T14:33:24	Code Enforcement	35.3364116	-106.5950766	6916-6920 Concord Hills Loop NE, Rio Rancho, NM 87144	Weeds. Litter. Old dishwasher. Metal tanks. Dog poo. Weeds. Overgrown tree. Who knows what else.	Closed	Sherrie Rice
233	2017-08-14T14:04:57	2017-10-02T07:48:43	Code Enforcement	35.3354321	-106.5955103	4701 Trenton Hills Dr NE, Rio Rancho, NM 87144	Both front & back yards. Weeds. Litter. Gym equipment. Water heater tanks. Dog poo. Trash. Non-working vehicles. Stacks of lumber. Overgrown trees. Who knows what else.	Closed	Sherrie Rice
234	2017-08-14T14:01:01	2017-08-15T14:35:40	Code Enforcement	35.3358757	-106.5949631	4713 Trenton Hills Dr NE, Rio Rancho, NM 87144	Weeds trash dog poop	Closed	Sherrie Rice
235	2017-08-14T13:24:32		Code Enforcement	35.2572543	-106.7071688	130 Eaton Rd SE, Rio Rancho, NM 87124	130 Eaton has had a pile of sticks and trash between the driveway and northside fence.	Closed	Charlie Lopez
236	2017-08-13T15:09:34	2017-08-22T15:10:58	Illegal Dumping	35.3246321	-106.5856326	7301 Kodiak Rd NE, Rio Rancho, NM 87144	Near the intersection of Kodiak Rd NE & Aldan Rd NE, a sofa and chair were dumped.	Closed	Zachariah Keintz
237	2017-08-11T10:27:11	2017-08-23T08:03:10	Illegal Dumping	35.302719	-106.606842	6112 Chayote Rd NE, Rio Rancho, NM 87144	Illegal dumping north of the end of Pasilla. Boxes, shrubs. Also lithium battteries in a different location. All showed up this week. Call me and I can give detailed locations. 310 614 9075	Closed	Zachariah Keintz
238	2017-08-08T20:37:17		Code Enforcement	35.2516384	-106.7044008	1603 Brenda Rd SE, Rio Rancho, NM 87124	1503 Brenda on the corner with 5th street, has a pile of trash/wood piled up against the fence.	Closed	Charlie Lopez
239	2017-08-08T18:36:31	2017-09-05T15:03:19	Code Enforcement	35.3022299	-106.5997306	2617 Saltillo Rd NE, Rio Rancho, NM 87144	A new neighbor just removed very large tumble weeds from his property and put them over the fence on an undeveloped property that borders his and mine. I am wanting to know if that is legal as they will most likely blow into several yards that are well maintained. I would hope he will haul them away either tomorrow or Thursday but if he does not i would like to have the ordinance enforced not to create issues for possibly myself or other neighbors. Please advise me by email. I have a video and pictures of the large collection of weeds stacked next to his property.	Closed	Sherrie Rice
240	2017-08-06T14:25:40	2017-08-09T12:15:44	Illegal Dumping	35.3174189	-106.6058564	3422 Chayote Rd NE, Rio Rancho, NM 87144	Stack of worn out tires dumped north of Baseball fields	Closed	Zachariah Keintz
241	2017-08-06T13:21:45	2017-08-14T08:09:19	Illegal Dumping	35.338154	-106.583412	Paseo Del Volcan, Rio Rancho, NM 87144	Mattresses dumped in Enchanted Hills arroyo under & just east of PDV overpass.	Closed	Alex Chavez
242	2017-08-04T11:19:55	2017-08-23T08:43:30	Illegal Dumping	35.3249647	-106.6190529	Earth Dr NE, Rio Rancho, NM 87144	More discarded oil in the same place just cleaned up	Closed	Zachariah Keintz
243	2017-08-04T10:59:34	2017-08-22T10:38:34	Illegal Dumping	35.321008	-106.6136456	Crescent Ct NE, Rio Rancho, NM 87144	Dresser and bedroom furniture	Closed	Zachariah Keintz
244	2017-08-04T08:09:29	2017-08-04T08:37:58	Illegal Dumping	35.2803621	-106.610899	6178 Roadrunner Loop NE, Rio Rancho, NM 87144	Trash in black bags thrown on side of street at Gadwell and Rail Runner. Received in CM office, entered by AP	Closed	Yvette Griego
245	2017-08-03T13:09:11	2017-08-16T08:25:04	Illegal Dumping	35.282257	-106.605698	6405-6409 Gambel Quail Rd NE, Rio Rancho, NM 87144	There is a white twin mattress thrown off to the side of Highway 528 on the east side between Rio Pinos and Rio Arriba Rds.	Closed	Zachariah Keintz

CitySourced Environmetal Concerns and Illegal Dumping - July 1, 2017-June 30, 2018

Colu	DateCreated	DateClosed	RequestType	Latitude	Longitude	Address	Description	Status Type	AssignedTo
246	2017-08-02T14:19:31	2017-08-16T12:47:09	Code Enforcement	35.2360126	-106.6468965	1333 Wilkes Way SE, Rio Rancho, NM 87124	So this Business Owner, Williams Construction has been blocking sidewalks and access for years now. Now they are storing Demolition Trash from one of their jobs on a trailer in the street. I sent this to the Mayor and Police Chief Monday Morning. There was a domestic violence report at this address this morning (with police dispatch), so we would appreciate remaining anonymous at this time. These people are on heavy drugs and alcohol and I know they have guns over there.	Duplicate	David Branch
247	2017-08-02T13:25:34	2017-08-22T10:58:39	Illegal Dumping	35.3262602	-106.6296959	Aurelian Rd NE, Rio Rancho, NM 87144	Mattresses Shouldn't be hard to find	Closed	Zachariah Keintz
248	2017-08-02T09:35:05	2017-08-18T16:18:15	Illegal Dumping	35.2541004	-106.6982317	52-498 19th St SE, Rio Rancho, NM 87124	Large amount of trash dumped on the East side lane of 19th St	Closed	Alex Chavez
249	2017-07-31T11:33:56	2017-08-03T12:07:04	Code Enforcement	35.2556086	-106.651261	101 Willow Ct SE, Rio Rancho, NM 87124	weeds not being maintained in yard	Closed	Jimmy Chavez
250	2017-07-30T13:07:30	2017-08-07T14:10:55	Environmental Concerns	35.251411	-106.66169	3928 Bay Hill Loop SE, Rio Rancho, NM 87124	Mosquitoes are moving in! We have thousands of them in our backyard, can you pleaseCheck the unattended ponds on the old golf course to see that they are treating them with mosquito bait. I don't want anyone to get sick. It's not good.	Closed	Victoria Garcia
251	2017-07-28T14:20:04	2017-08-02T09:38:20	Illegal Dumping	35.341309	-106.62265	Chopin Rd NE, Rio Rancho, NM 87144	Misc debris	Closed	Zachariah Keintz
252	2017-07-28T14:13:08	2017-08-02T09:39:43	Illegal Dumping	35.344311	-106.62339	Chopin Rd NE, Rio Rancho, NM 87144	Mattresses, other household items.	Closed	Zachariah Keintz
253	2017-07-28T10:10:13	2017-08-23T13:02:20	Illegal Dumping	35.3268555	-106.6234732	Moon Rd NE, Rio Rancho, NM 87144	Construction Debris, Party Litter including drug needles and food containers. Old tires pallets, school notebooks many with names and addresses. I have a movie of the area but the file is too large to send.	Closed	Zachariah Keintz
254	2017-07-28T10:05:19	2017-08-02T09:40:23	Illegal Dumping	35.3171562	-106.6057491	Lincoln Ave NE, Rio Rancho, NM 87144	1st dumped mattress this week. Road workers callous enough to run over it with road grader during road maintenance.	Closed	Zachariah Keintz
255	2017-07-28T10:02:30	2017-08-22T09:24:10	Illegal Dumping	35.3226888	-106.6293526	Oerview Rd NE, Rio Rancho, NM 87144	Yet another dumped mattress 3rd this week	Closed	Zachariah Keintz
256	2017-07-28T09:58:51	2017-08-22T13:37:39	Illegal Dumping	35.3234591	-106.6296101	Aurelian Rd NE, Rio Rancho, NM 87144	House hold trash and Mattresses Scattered approximately 100 yrds down roadway. This area shows evidence of regular disposal of household wastes.	Closed	Zachariah Keintz

CitySourced Environmetal Concerns and Illegal Dumping - July 1, 2017-June 30, 2018

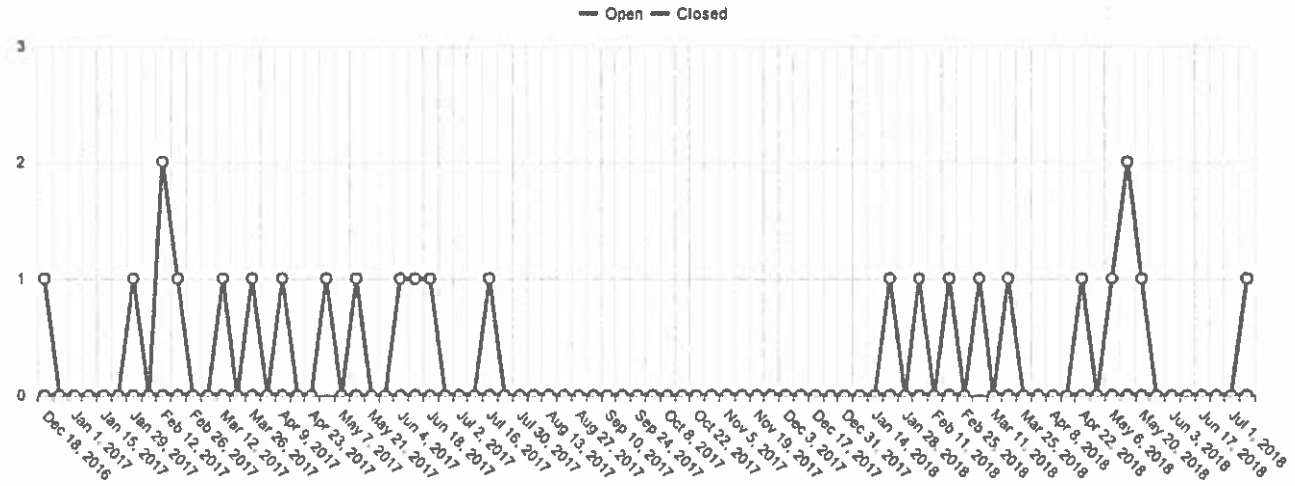
Colu	DateCreated	DateClosed	RequestType	Latitude	Longitude	Address	Description	Status Type	AssignedTo
257	2017-07-27T15:56:59	2017-08-22T15:45:58	Code Enforcement	35.3679456	-106.6392633	6655 Mountain Hawk Loop NE, Rio Rancho, NM 87144	At 6720 Mountain Hawk Loop NE Rio Rancho NM 87144: This is the side yard one day after Municipal Court Criminal Summons Case No. 2017-0004020 was heard. The homeowner, Patricia Borja, has had the following Code Enforcement Requests regarding this stuff or junk. #296743, #336293, #355991 and #356290. In notes on 5/24/17 (#336293) I was told, "...if any problems let me know." Well, here it is. Also, now there are a number of weeds growing in her front yard that need to be removed. Thank you for following up with the situation regarding the stuff/junk, and the weeds.	Closed	Sherrie Rice
258	2017-07-26T18:15:04	2017-08-09T07:06:18	Code Enforcement	35.2572806	-106.7071635	130 Eaton Rd SE, Rio Rancho, NM 87124	A section of the front fence between 120 and 130 Eaton is down and there is a pile of branches in the front yard next to the front fence.	Closed	Charlie Lopez
259	2017-07-26T15:39:54	2017-08-16T12:44:52	Code Enforcement	35.2356836	-106.6931224	2156 Palenque Dr SE, Rio Rancho, NM 87124	City Codes, Article 12	Could Not Verify	David Branch
260	2017-07-25T11:42:31	2017-07-26T08:08:16	Code Enforcement	35.2645587	-106.6436699	442 Sandstone Dr NE, Rio Rancho, NM 87124	DUMP HOUSE 442 Standstone Dr NE Rio Rancho 87124. House has broken old furniture, appliances, etc. all dumped in front yard. Falling garage door, broken windows. Making the neighborhood look awful.	Closed	Jimmy Chavez
261	2017-07-21T10:01:20	2017-07-25T14:54:43	Illegal Dumping	35.3279059	-106.6241169	Allemande Rd NE, Rio Rancho, NM 87144	Household furniture, TV, waste from fireworks, and possible EPA hazardous chemicals waste oil etc.	Closed	Zachariah Keintz
262	2017-07-18T16:38:24	2017-08-21T14:47:39	Environmental Concerns	35.2286452	-106.6871239	1708 Cortina Loop SE, Rio Rancho, NM 87124	Hello, residents around this address complain of roaches living in the sewer again this year. Last year the City treated for them and it seems it is needed again. The roaches come out of the drains at night and invade homes.	Could Not Verify	Xavier Pettes
263	2017-07-17T13:22:00	2017-07-19T07:04:45	Property Issue (Code Enforcement)	35.3050407	-106.6973652	1896 Mesa Grande Loop NE, Rio Rancho, NM 87144	All kinds of debris and waste in the front yard. Reported by citizen to City Administration.	Closed	Bryan Misbach
264	2017-07-16T20:38:34	2017-07-25T14:55:04	Illegal Dumping	35.2906787	-106.7227149	7th St NE, Rio Rancho, NM 87144	At the end of the arroyo where the unpaved section of 7th Street meets the unpaved portion of 19th Avenue, someone has dumped a load of trash. (See photo) Also, near the intersection of unpaved 8th Street and 18th Avenue, there are about a half dozen tire recaps dumped on both sides of the road.	Closed	Zachariah Keintz

CitySourced Environmetal Concerns and Illegal Dumping - July 1, 2017-June 30, 2018

Colu	DateCreated	DateClosed	RequestType	Latitude	Longitude	Address	Description	Status Type	AssignedTo
265	2017-07-16T09:10:49	2017-07-25T14:55:34	Illegal Dumping	35.284093	-106.7072654	1508 Pine Rd NE, Rio Rancho, NM 87144	Along the north side of Pine Road, roughly between Lil Avenue and Beth Lane, there are a mattress and two large cardboard cartons on the shoulder. They have been there since at least Thursday evening – probably off a truckload of trash someone was taking out to the open space to dump west of North Hills. There also are a couple pieces of what might have been a daybed and a couple large cardboard cartons on the south side of Pine, in the brush just east of the three houses across from the intersection with Lil Avenue.	Closed	Zachariah Keintz
266	2017-07-14T20:27:36	2017-07-20T06:50:57	Property Issue (Code Enforcement)	35.3439751	-106.6631699	Venada Rd NE, Rio Rancho, NM 87144	Furniture and all types of trash in front of the house and in the street.	Closed	Jimmy Chavez
267	2017-07-14T08:27:56	2017-08-18T16:17:52	Illegal Dumping	35.3445457	-106.6240783	Offenbach Rd NE, Rio Rancho, NM 87144	Mattresses and box springs dumped along the side of the road.	Closed	Yvette Griego
268	2017-07-13T19:45:28	2017-07-19T09:16:51	Environmental Concerns	35.242233	-106.735825	22-38 Quixote Dr SE, Rio Rancho, NM 87124	This person just got rid of 15x30 dumpster that sat for years now this..	Closed	Charlie Lopez
269	2017-07-12T08:56:58	2017-07-13T11:47:30	Illegal Dumping	35.3355756	-106.5817575	Enchanted Hills Path, Rio Rancho, NM 87144	Someone dumper woods.	Closed	Zachariah Keintz
270	2017-07-10T10:20:51	2017-08-07T08:58:50	Property Issue (Code Enforcement)	35.2645587	-106.6436699	442 Sandstone Dr NE, Rio Rancho, NM 87124	Home has debis on front yard. Garage door hanging. Broken windows show boxes to top. Small child inside. May be hazardous. Eye sore.	Closed	Jimmy Chavez
271	2017-07-09T19:55:59	2017-07-11T14:23:39	Illegal Dumping	35.3332127	-106.6440949	Worchester Rd NE, Rio Rancho, NM 87144	Nice little dump site. Anyone need a couch or cooler? :)	Closed	Zachariah Keintz
272	2017-07-08T19:49:20		Property Issue (Code Enforcement)	35.2473409	-106.6972435	1960 Regency Park Rd SE, Rio Rancho, NM 87124	SECOND REQUEST- This broken down basketball stand has been on the ground for weeks. When it stands up it falls over on to my property and my tree. The police have been out previously to remove it off the tree. My wife is disabled and unable to move it off our property when I am not home. The backboard is broken and base is broken and it is no longer functional and is debris. Please address this issue. This is a rental home	Closed	Charlie Lopez
273	2017-07-08T18:04:06	2017-08-31T08:33:23	Property Issue (Code Enforcement)	35.260025	-106.644722	182 Coral Dr NE, Rio Rancho, NM 87124	Trailer with couch, abundance of trash, old furniture	Closed	Jimmy Chavez
274	2017-07-03T01:27:06	2017-08-22T08:25:50	Illegal Dumping	35.257988	-106.741714	205 Sandia Blvd, Albuquerque, NM 87107	Trash everywhere we need to provide once a month free dumping in rainbow area please . I live n c it daily.. it's 1:30 am can't sleep cruising with dog	Closed	Zachariah Keintz
275	2017-07-02T21:52:19	2017-08-18T16:16:46	Illegal Dumping	35.318844	-106.731438	Rainbow Blvd NE, Rio Rancho, NM 87144	On Rainbow just North of King, watched as folks in a blue toyota pickup dumped a mattress in the road and sped off	Closed	Yvette Griego
276	2017-07-01T15:19:57	2017-07-06T16:58:07	Environmental Concerns	35.2790881	-106.6039591	1400-1498 Teal Pl NE, Rio Rancho, NM 87144	Continuously running water	Closed	Marian Wrage

Service Request Metrics: All My Requests

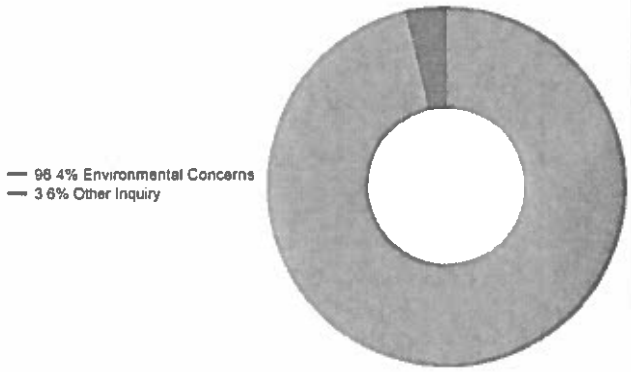
Open/Closed by Day



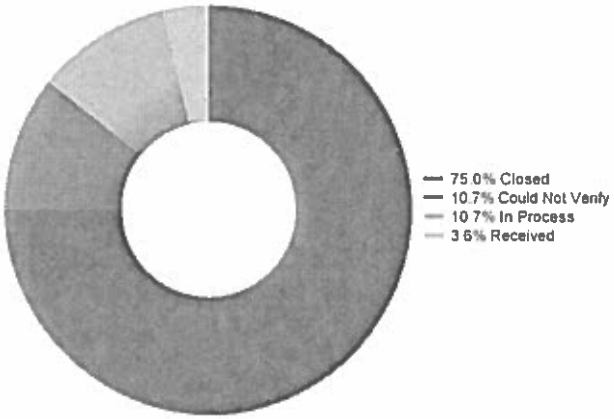
Statistics

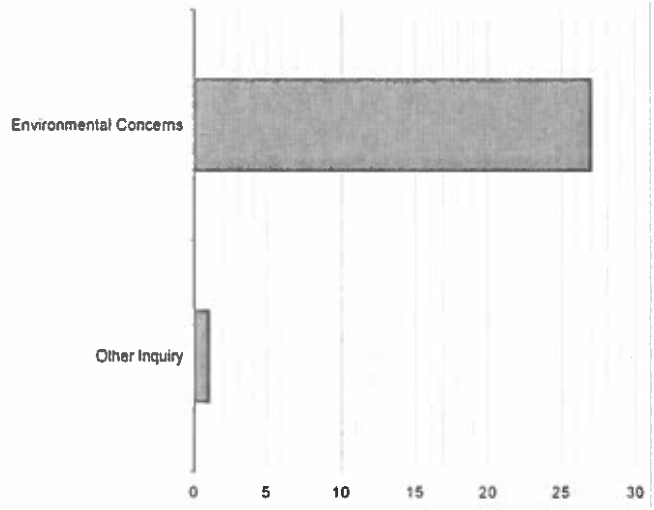
Total Reports Created	28
Total Reports Open	4
Total Reports Closed	24
Average Reports Created per Day	.049
Average Reports Closed per Day	.042
Average Time to Close	49.509 Days
Fastest Closed Request Type	Environmental Concerns (.106 Days)
Slowest Closed Request Type	Environmental Concerns (454.354 Days)
Most Common Request Type	Environmental Concerns
Least Common Request Type	Other Inquiry

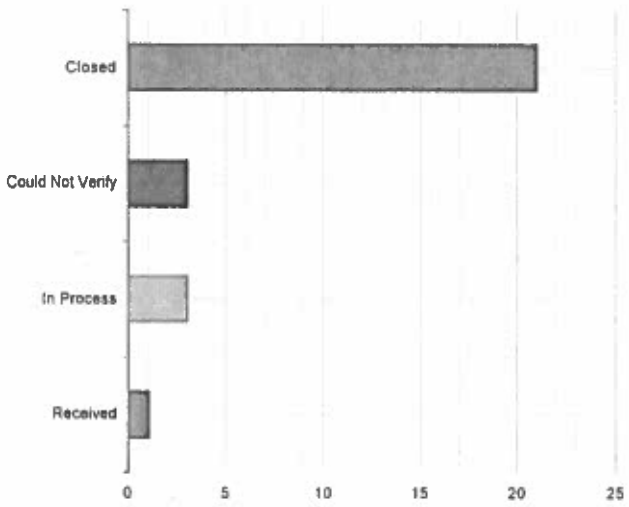
Requests by Type



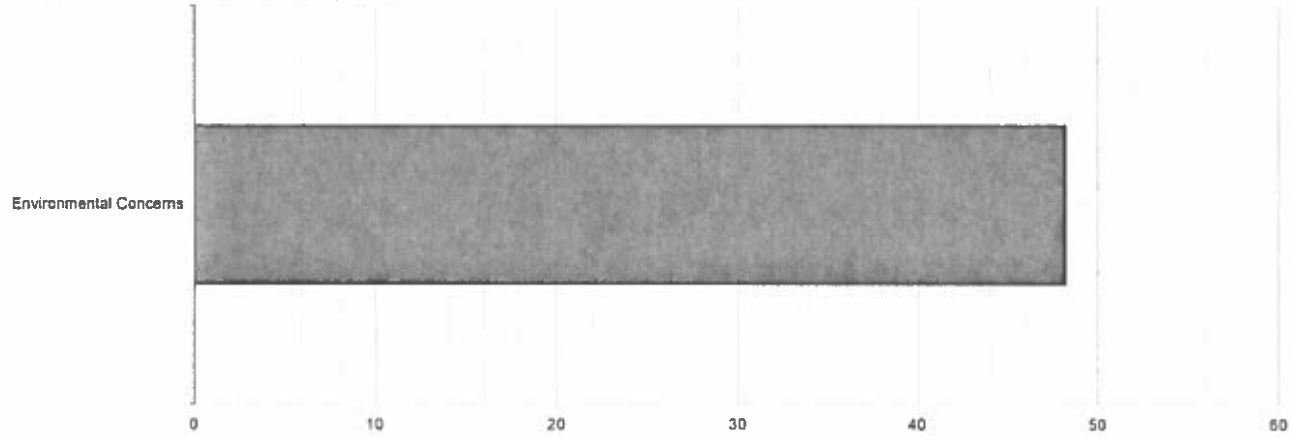
Requests by Status





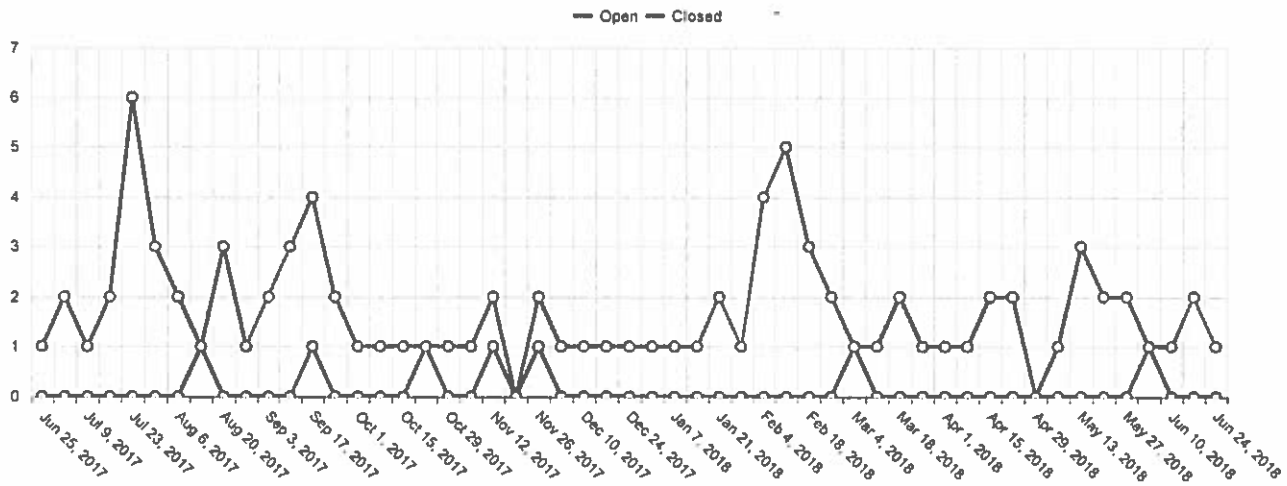


Average Days to Close per Request Type



Service Request Metrics: All Recent Requests

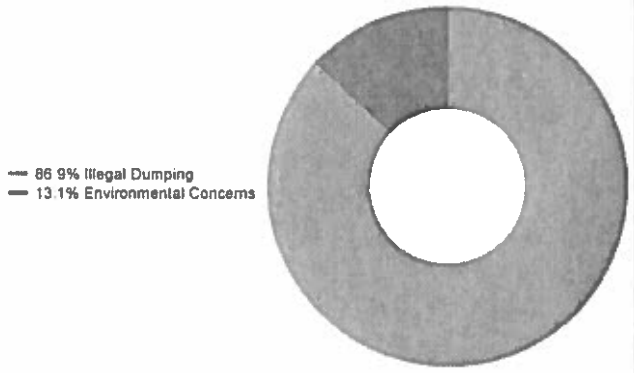
Open/Closed by Day



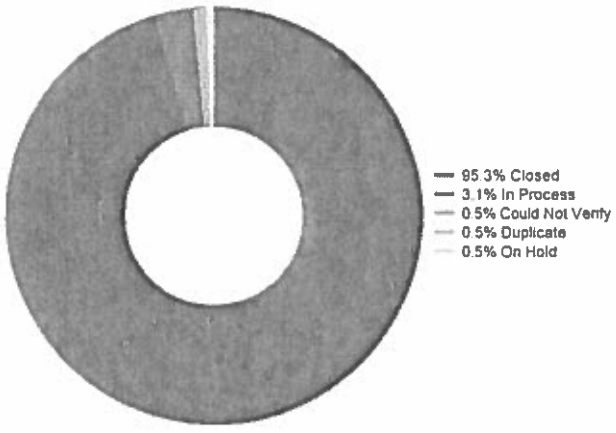
Statistics

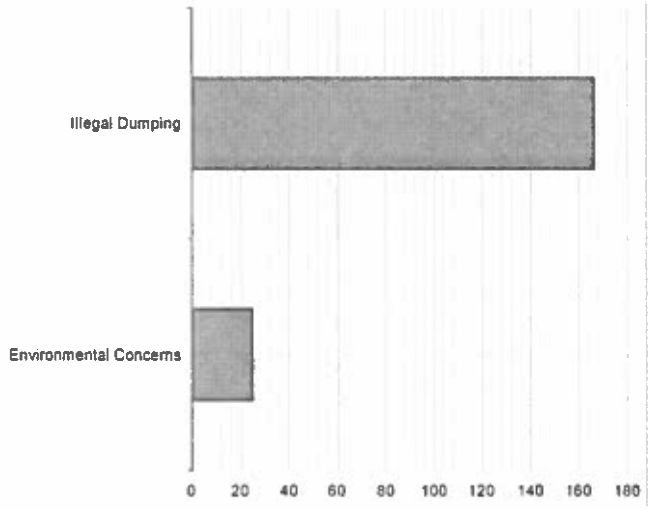
Total Reports Created	191
Total Reports Open	7
Total Reports Closed	184
Average Reports Created per Day	.532
Average Reports Closed per Day	.51
Average Time to Close	19.009 Days
Fastest Closed Request Type	Illegal Dumping (.001 Days)
Slowest Closed Request Type	Illegal Dumping (326.026 Days)
Most Common Request Type	Illegal Dumping
Least Common Request Type	Environmental Concerns

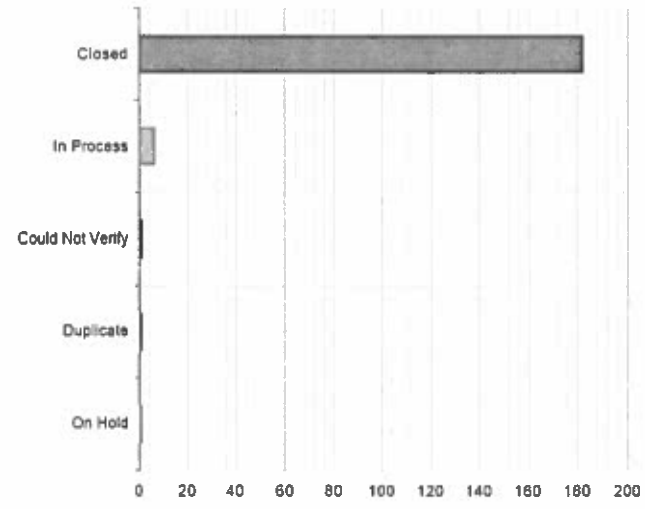
Requests by Type



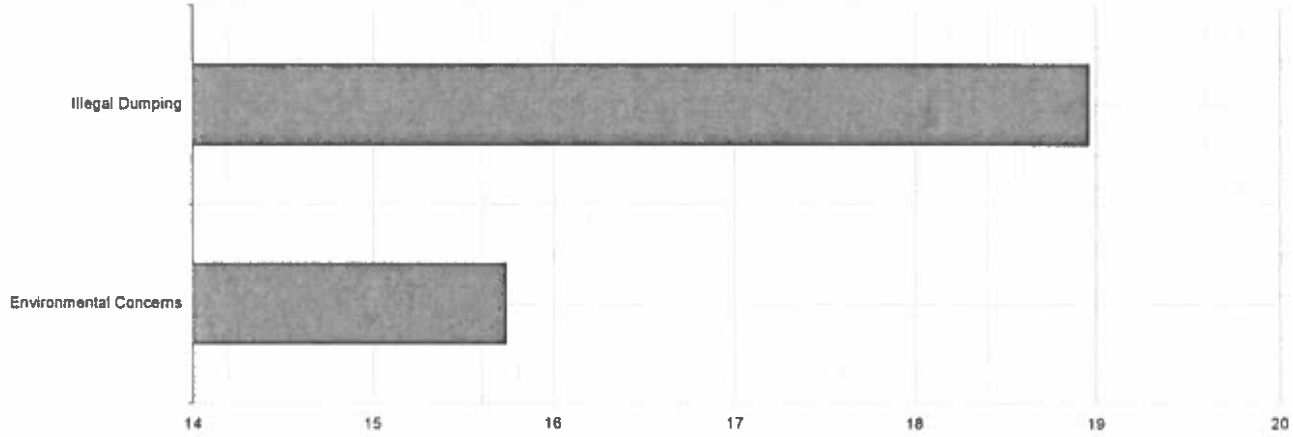
Requests by Status







Average Days to Close per Request Type



CGP Compliance Inspection List

Notices of Intent (NOIs), Notices of Termination (NOTs), or Low Erosivity Waivers (LEW) submitted under the 2017 Construction General Permit (CGP) - July 1, 2017 - June 30, 2018

Column1	NPDES ID	Type	Owner/Operator	Site Name	Site State	Site City	Status	Submitted	Date of Coverage
1	NMR1001CZ	Notice of Intent	Company Inc	Montreal Loop Rehabilitation Project	NM	Rio Rancho	Active	6/1/2018	6/15/2018
2	NMR1001CF	Notice of Intent	Paseo Gateway	Paseo Gateway Phase 1 - SAS Channel	NM	Rio Rancho	Active	5/24/2018	6/7/2018
3	NMR1001CB	Notice of Intent	Holdings	Pritchard Residence	NM	Rio Rancho	Active	5/23/2018	6/6/2018
4	NMR1001DB	Low Erosivity Waiver	Joiner Inc	Rio Rancho Golf Course Pond Closure	NM	Rio Rancho	Active	6/5/2018	6/5/2018
5	NMR1001DA	Low Erosivity Waiver	Joiner Inc	Rio Rancho Golf Course Pond Closure	NM	Rio Rancho	Active	6/5/2018	6/5/2018
6	NMR1001D9	Low Erosivity Waiver	Joiner Inc	Rio Rancho Golf Course Pond Closure	NM	Rio Rancho	Active	6/5/2018	6/5/2018
7	NMR1000MG	Notice of Intent	Southwest Inc	Enchanted Hills Subdivision 11B	NM	Rio Rancho	Active	5/22/2018	6/5/2018
8	NMR1001C2	Notice of Intent	City Rio Rancho	Discharge Line for Advanced Water Treatment Facility	NM	Rio Rancho	Active	5/18/2018	6/1/2018
9	NMR1001C1	Notice of Intent	City Rio Rancho	Meadows Blvd Reconstruction Project	NM	Rio Rancho	Active	5/18/2018	6/1/2018
10	NMR1001BT	Notice of Intent	Franklin Earthmoving Inc	Paseo Gateway Phase 1 - SAS Channel	NM	Rio Rancho	Active	5/16/2018	5/30/2018
11	NMR1001BM	Notice of Intent	Gandy Dancer	Discharge Line for Advanced Water Treatment Facility	NM	Rio Rancho	Active	5/16/2018	5/30/2018
12	NMR1001BK	Notice of Intent	Robert Toledo	Rio Rancho Discharge Line	NM	Rio Rancho	Active	5/15/2018	5/29/2018
13	NMR1001BJ	Notice of Intent	Dirtworks Inc	Rainbow Pond and Downstream Channel Project	NM	Rio Rancho	Archived	5/15/2018	5/29/2018
14	NMR10006H	Notice of Intent	Raylee Homes	Hawksite	NM	Rio Rancho	Terminated	5/23/2018	5/23/2018
15	NMR10006K	Notice of Intent	Raylee Homes	Loma Colorado	NM	Rio Rancho	Terminated	5/23/2018	5/23/2018
16	NMR1001AR	Notice of Intent	Pulte	Redondo at Mariposa	NM	Rio Rancho	Active	5/4/2018	5/18/2018
17	NMR10011H	Notice of Intent	Franklin Earthmoving Inc	Solcito Subdivision Phase3/4	NM	Rio Rancho	Terminated	5/14/2018	5/14/2018
18	NMR10011B	Low Erosivity Waiver	Albuquerque Asphalt Inc	Unser and Arena Emergency Repair Work	NM	Rio Rancho	Discontinued	5/4/2018	5/4/2018
19	NMR10019Q	Notice of Intent	SSCAFCA	Lisbon Channel Access Project	NM	Rio Rancho	Active	4/18/2018	5/2/2018
20	NMR10018Q	Notice of Intent	Compass Engineering Construction Services	Lisbon Channel Access Project	NM	Rio Rancho	Active	4/5/2018	4/19/2018
21	NMR10018K	Notice of Intent	City Rio Rancho	ZARAGOZA WATER LINE REPLACEMENT	NM	Rio Rancho	Active	4/3/2018	4/17/2018
22	NMR10018H	Notice of Intent	2	Vista Montebella Subdivision	NM	Rio Rancho	Active	4/2/2018	4/16/2018
23	NMR10018G	Notice of Intent	Enviroworks	Vista Montebella Subdivision	NM	Rio Rancho	Active	4/2/2018	4/16/2018
24	NMR10017O	Notice of Intent	City Rio Rancho	Morning Star Public Utility Improvements	NM	Rio Rancho	Active	3/26/2018	4/9/2018
25	NMR10017J	Notice of Intent	Franklins Earthmoving Inc	Zaragoza Rd Waterline Replacementt	NM	Rio Rancho	Active	3/25/2018	4/8/2018
26	NMR10016P	Notice of Intent	Cleveland Heights	Cleveland Height Phase I	NM	Rio Rancho	Active	3/14/2018	3/28/2018
27	NMR1000W5	Notice of Intent	Altor Construction Inc	Sandia Vista Elementary School Parking Lot Improvement	NM	Rio Rancho	Terminated	3/14/2018	3/14/2018
28	NMR10015H	Notice of Intent	Construction	Eduro Healthcare	NM	Rio Rancho	Active	2/28/2018	3/14/2018
29	NMR10014S	Notice of Intent	Titan Corrales	Extra Space Self Storage	NM	Rio Rancho	Active	2/22/2018	3/8/2018
30	NMR1000P7	Low Erosivity Waiver	Franklin Earthmoving Inc	Enchanted Hills Unit 11B Excavated Material	NM	Rio Rancho	Discontinued	3/7/2018	3/7/2018
31	NMR1000H3	Notice of Intent	Franklin Earthmoving Inc	Enchanted Hills Subdivision Unit 11B	NM	Rio Rancho	Terminated	3/7/2018	3/7/2018
32	NMR10014Q	Notice of Intent	Titan Development	Extra Space Self Storage	NM	Rio Rancho	Active	2/21/2018	3/7/2018
33	NMR100147	Notice of Intent	Salls Brothers Construction Inc	Cleveland Heights Phase I	NM	Rio Rancho	Active	2/15/2018	3/1/2018
34	NMR100086	Notice of Intent	New Concepts Inc	Rivers Edge Waterline Replacement	NM	Rio Rancho	Terminated	2/28/2018	2/28/2018
35	NMR1000WC	Notice of Intent	Southwest Inc	Lomas Encantadas Subdivision Units 2C and 2B	NM	Rio Rancho	Active	2/8/2018	2/22/2018
36	NMR1000VV	Notice of Intent	Franklin Earthmoving Inc	Lomas Encantadas Subdivision Units 2C and 2B	NM	Rio Rancho	Active	2/8/2018	2/22/2018
37	NMR10013E	Notice of Intent	Cole Sons	Lincoln Middle School Gymnasium	NM	Rio Rancho	Active	2/6/2018	2/20/2018
38	NMR10012X	Notice of Intent	Horton Inc	Enchanted Hills	NM	Rio Rancho	Active	1/29/2018	2/12/2018
39	NMR1000C7	Notice of Intent	Pulte	Loma Colorado	NM	Rio Rancho	Terminated	2/7/2018	2/7/2018
40	NMR1000C2	Notice of Intent	Pulte	Lomas Encantadas	NM	Rio Rancho	Active	2/7/2018	2/7/2018
41	NMR10012B	Notice of Intent	National Construction Company	Extra Space Self Storage	NM	Rio Rancho	Active	1/23/2018	2/6/2018
42	NMR101023	Notice of Intent	Pate Construction Co Inc	Tamaya Drainage	NM	Rio Rancho	Active	1/23/2018	2/6/2018
43	NMR1000C4	Notice of Intent	Pulte	Yucatan at Cabezon	NM	Rio Rancho	Active	1/26/2018	1/26/2018
44	NMR1000C7	Notice of Intent	Pulte	Loma Colorado	NM	Rio Rancho	Archived	1/26/2018	1/26/2018

Notices of Intent (NOIs), Notices of Termination (NOTs), or Low Erosivity Waivers (LEW) submitted under the 2017 Construction General Permit (CGP) - July 1, 2017 - June 30, 2018

Column1	NPDES ID	Type	Owner/Operator	Site Name	Site State	Site City	Status	Submitted	Date of Coverage
45	NMR10011H	Notice of Intent	Franklin Earthmoving Inc	Solcito Subdivision Phase3/4	NM	Rio Rancho	Archived	1/10/2018	1/24/2018
46	NMR10010E	Notice of Intent	Desert West Development Ltd	La Esperanza Daycare	NM	Rio Rancho	Active	12/29/2017	1/12/2018
47	NMR10011B	Low Erosivity Waiver	Albuquerque Asphalt Inc	Unser and Arena Emergency Repair Work	NM	Rio Rancho	Archived	1/10/2018	1/10/2018
48	NMR100108	Notice of Intent	Oterra	Ridgeline Mariposa	NM	Rio Rancho	Active	12/27/2017	1/10/2018
49	NMR10011A	Low Erosivity Waiver	Mechenbier Construction Inc	Fish Factory Swim School Building	NM	Rio Rancho	Active	1/9/2018	1/9/2018
50	NMR1000O7	Notice of Intent	Hawkins Companies	Commercial Development at NM 528 and Sabana Grande	NM	Rio Rancho	Terminated	1/3/2018	1/3/2018
51	NMR1000ZN	Notice of Intent	Double Properties	Solcito Subdivision Phase 3/4	NM	Rio Rancho	Active	12/14/2017	12/28/2017
52	NMR1000ZB	Notice of Intent	Horton Inc	Los Pinos	NM	Rio Rancho	Active	12/8/2017	12/22/2017
53	NMR1000YQ	Notice of Intent	Bradbury Stamm Construction	Morning Star of Rio Rancho	NM	Rio Rancho	Active	12/1/2017	12/15/2017
54	NMR1000XV	Notice of Intent	Horton Inc	Milagro Mesa	NM	Rio Rancho	Active	11/20/2017	12/4/2017
55	NMR1000WF	Notice of Intent	Desert Utility Paving	Discharge Line for Advanced Water Treatment Facility	NM	Rio Rancho	Active	11/3/2017	11/17/2017
56	NMR1000WC	Notice of Intent	Southwest Inc	Lomas Encantadas Subdivision Unit 2C	NM	Rio Rancho	Archived	11/2/2017	11/16/2017
57	NMR1000WS	Notice of Intent	Altor Construction Inc	Sandia Vista Elementary School Parking Lot Improvement	NM	Rio Rancho	Archived	11/1/2017	11/15/2017
58	NMR10I023	Notice of Intent	Pate Construction Co Inc	Tamaya Drainage	NM	Rio Rancho	Archived	10/31/2017	11/14/2017
59	NMR1000VV	Notice of Intent	Franklin Earthmoving Inc	Lomas Encantadas Subdivision Unit 2C	NM	Rio Rancho	Archived	10/30/2017	11/13/2017
60	NMR100094	Notice of Intent	Horton Inc	Solcito Subdivision	NM	Rio Rancho	Terminated	11/8/2017	11/8/2017
61	NMR100095	Notice of Intent	Horton Inc	Lomas Encantadas	NM	Rio Rancho	Terminated	11/8/2017	11/8/2017
62	NMR1000SA	Low Erosivity Waiver	Century Club Construction	CNM Arroyo Crossing	NM	Rio Rancho	Discontinued	11/7/2017	11/7/2017
63	NMR1000SB	Notice of Intent	Century Club Construction	CM Arroyo Crossing	NM	Rio Rancho	Terminated	11/7/2017	11/7/2017
64	NMR1000MH	Notice of Intent	Mechenbier Construction	1817 Wellspring Medical Office Building	NM	Rio Rancho	Terminated	11/7/2017	11/7/2017
65	NMR1000WH	Low Erosivity Waiver	3 Spec	Dollar General	NM	Rio Rancho	Active	11/6/2017	11/6/2017
66	NMR1000RW	Notice of Intent	Century Club Construction	CNM Arroyo Crossing	NM	Rio Rancho	Terminated	10/26/2017	10/26/2017
67	NMR1000UB	Notice of Intent	Star Construction Inc	Advantage Assisted Living	NM	Rio Rancho	Active	10/11/2017	10/25/2017
68	NMR1000O1	Notice of Intent	Radix Construction Inc	Commercial Development at NM 528 & Sabana Grande	NM	Rio Rancho	Terminated	10/23/2017	10/23/2017
69	NMR1000U5	Notice of Intent	Desert Utility Paving	Discharge Line for Advanced Water Treatment Facility	NM	Rio Rancho	Active	10/8/2017	10/22/2017
70	NMR10009I	Notice of Intent	SSCAFCA	Black Arroyo Wildlife Park Ph II Recreational Trail	NM	Rio Rancho	Terminated	10/5/2017	10/5/2017
71	NMR100099	Notice of Intent	Horton Nc	Vista Monzano	NM	Rio Rancho	Terminated	10/3/2017	10/3/2017
72	NMR1000SB	Notice of Intent	Century Club Construction	CM Arroyo Crossing	NM	Rio Rancho	Archived	9/13/2017	9/27/2017
73	NMR1000DT	Notice of Intent	Star Paving Inc	Blak Arroyo Wildlife Park Ph 2 Recreational Trail	NM	Rio Rancho	Terminated	9/26/2017	9/26/2017
74	NMR1000RW	Notice of Intent	Century Club Construction	CNM Arroyo Crossing	NM	Rio Rancho	Archived	9/11/2017	9/25/2017
75	NMR1000SX	Low Erosivity Waiver	Franklin Earthmoving Inc	Lot 7A La Bona Tierra	NM	Rio Rancho	Active	9/22/2017	9/22/2017
76	NMR1000SA	Low Erosivity Waiver	Century Club Construction	CNM Arroyo Crossing	NM	Rio Rancho	Archived	9/13/2017	9/13/2017
77	NMR1000AX	Notice of Intent	Homes	Mountain Hawk	NM	Rio Rancho	Terminated	8/29/2017	8/29/2017
78	NMR1000O8	Notice of Intent	Rio Rancho Public Schools	Rio Rancho Public Schools Transportation Center	NM	Rio Rancho	Active	7/28/2017	8/11/2017
79	NMR1000O7	Notice of Intent	Hawkins Companies	Commercial Development at NM 528 and Sabana Grande	NM	Rio Rancho	Archived	7/28/2017	8/11/2017
80	NMR1000O3	Notice of Intent	Construction	Rio Rancho Public Schools Transportation Center	NM	Rio Rancho	Archived	7/27/2017	8/10/2017
81	NMR1000O1	Notice of Intent	Radix Construction Inc	Commercial Development at NM 528 & Sabana Grande	NM	Rio Rancho	Archived	7/26/2017	8/9/2017
82	NMR1000PD	Low Erosivity Waiver	Southwest Inc	Enchanted Hills Unit 11B Excavated Material	NM	Rio Rancho	Active	8/8/2017	8/8/2017
83	NMR1000P7	Low Erosivity Waiver	Franklin Earthmoving Inc	Enchanted Hills Unit 11B Excavated Material	NM	Rio Rancho	Archived	8/8/2017	8/8/2017
84	NMR1000MH	Notice of Intent	Mechenbier Construction	1817 Wellspring Medical Office Building	NM	Rio Rancho	Archived	7/11/2017	7/25/2017
85	NMR1000MG	Notice of Intent	Southwest Inc	Enchanted Hills Subdivision 11B	NM	Rio Rancho	Archived	7/11/2017	7/25/2017
86	NMR10002X	Notice of Intent	Construction	Safelite Customer Care Center Overflow Parking Lot	NM	Rio Rancho	Terminated	7/7/2017	7/7/2017

MS4 Dry Weather Discharge Screening Reports

CITY OF RIO RANCHO
IDDE INSPECTION FIELD FORM

PROJECT/SURVEY NAME (i.e., Wet, Dry, Incident Tracking, Outfall Recon Inventory)	DATE	TIME	INVESTIGATOR(S)
DRY WEATHER SCREENING	8/16/2017	10:00 AM	XAVIER POTTS
OUTFALL ID	**SUBWATERSHED**	**LATITUDE** 35°17'54" N	**OBSERVER INFO. (Reported by Citizens)**
RIVERS BMP 1	BARRANCA	**LONGITUDE** 106° 34' 50" W	ANNUAL SCREENING
LAND USE IN DRAINAGE AREA (i.e., Commercial, Industrial, Residential)	**WEATHER**	**LAST RAIN (>72 hours or < 72 hours)**	
RESIDENTIAL SUB	MID 70'S	0.0"	

Conveyance (Check one only)	☒ MS4 Outfall	☐ Other MS4 Structure	☐ Concrete Channel	☐ Earthen Channel	☐ Arroyo/Natural Creek	Comments:			
Material	☐ Concrete	☐ Earthen	☐ Rip-Rap	☒ RCP	☐ CMP	☐ PVC	☐ HDPE	☐ Steel	☐ Other_____
Shape	☒ Circular	☐ Elliptical	☐ Box	☐ Trapezoid	☐ Parabolic	☐ Other_____	☐ Single	☐ Double	☐ Triple ☐ Other_____
Dimensions	☒ Diameter/Dimensions: 24"		☐ Depth: _____	☐ Bottom Width: _____		☐ Top Width: _____			
Submerged	In Water: ☒ No	☐ Partially	☐ Fully		With Sediment: ☒ No	☐ Partially	☐ Fully		
Ownership	☐ SSCAFCA	☒ City	☐ Private	☐ Unknown	☐ Other_____				
Discharges to	☐ Pond/Depressional Feature	☐ Natural Conveyance	☐ Storm Drain Channel	☐ Open Space	☒ Other RIO GRANDE				
Flow Status	☐ Flowing	☒ Dry	☐ Ponded		**Flow Reaches Receiving Water?**	☐ Yes	☐ No	N/A	

WATER QUALITY APPEARANCE	**ODOR**	☐ HYDROGEN SULFIDE	☐ MUSTY	☐ SEWAGE	☐ AMMONIA	☐ GASOLINE	☒ OTHER N/A
		☐ SOAP	☐ CHLORINE	☐ NONE	☐ EARTHY	☐ PESTICIDE	
	COLOR	☐ YELLOW	☐ GREEN	☐ BLUE	☐ BROWN	☐ BLACK	☒ OTHER N/A
		☐ GRAY	☐ WHITE	☐ COLORLESS			
	FLOATING MATERIALS	☐ TRASH OR DEBRIS	☐ OILY SHEEN	☐ ORGANIC	☐ SCUM	☐ SUDS	☒ OTHER N/A
		☐ OBJECTS (DESCRIBE)	☐ FECAL MATTER	☐ BIOFILM	☐ NONE		
	OIL AND GREASE	☒ NONE	☐ DEPOSIT	☐ EMULSION	☐ SHEEN	☐ HEAVY FLOATING CONCENTRATION	
	TURBIDITY	☐ HEAVY CLOUDINESS, OPAQUE		☐ CLOUDY	☐ SOME CLOUDINESS	☒ NONE	

POTENTIAL SOURCES OF FLOW OBSERVED NEAR SITE	☐ Pool/Spa Discharge	☐ Illicit Connection	☐ Restaurant Washing write restaurant name in comments	☐ Illegal Dumping	☐ Sewage	☐ Groundwater
	☐ Irrigation Runoff	☐ Vehicle Washing	☐ Water Line Break	☐ Permitted Discharge	☐ Power Washing	☐ Other
	DESCRIBE ALL SOURCES: NONE					

OTHER VISUAL OBSERVATIONS

Outfall Damage	☐ Cracking or Chipping	☐ Corrosion	☐ Peeling Paint	☒ None	☐ Other_____
Deposits/Stains	☐ Flow Line	☐ Oily	☐ Paint	☒ None	☐ Other_____
Abnormal Vegetation	☒ Excessive	☐ Inhibited			
Pipe benthic growth	☐ Brown	☐ Orange	☐ Green	☒ None	☐ Other_____

FIELD MEASUREMENTS (Taken in duplicate)	TEMP (degree C)	pH	CONDUCTIVITY (uS/cm)
	TEMP (degree C)	pH	CONDUCTIVITY (uS/cm)

GRAB COLLECTION TIME:	**Grab samples collected:** (Circle all that apply) Ammonia, Bacteria, Boron, Chlorine, Color, Detergents, Fluoride, Hardness, Potassium, Surfactants
QA/QC SAMPLES:	☐ Field Duplicate ☐ Field Blank

FLOW ESTIMATION Flow Yes (No) Ponded — Evidence of overland flow near sampling location? Yes (No)

Marsh-McBirney used for flow measurements? Yes / No

Flowing Creek (Marsh-McBirney or leaf method)	Filling a Bottle	Flowing Pipe
1. Width (ft or in) _____	1. Volume (mL or L) _____	1. Pipe Diameter (ft or in) _____
2. Depth (ft or in) _____	2. Time to fill (sec) _____	2. Depth (ft or in) _____
3. Velocity (ft or in / sec) _____		3. Velocity (ft or in / sec) _____
Flow _____	Flow _____	Flow _____

PHOTOS TAKEN: ☐ YES ☒ NO	**COMMENTS:** OUTFALL WAS DRY DURING THIS FIELD VISIT.
INVESTIGATOR SIGNATURE _____	NPDES PROJECT MANAGER

CITY OF RIO RANCHO
IDDE INSPECTION FIELD FORM

PROJECT/SURVEY NAME (i.e., Wet, Dry, Incident Tracking, Outfall Recon Inventory)	DATE	TIME	INVESTIGATOR(S)
DRY WEATHER SCREENING	6/18/2017	10:35 AM	XAVIER PEREZ
OUTFALL ID	**SUBWATERSHED**	**LATITUDE** 35°17'27"N	**OBSERVER INFO. (Reported by Citizens)**
RIVERS EDGE 2	BARRANCA	**LONGITUDE** 106°35'20"W	ANNUAL SCREENING
LAND USE IN DRAINAGE AREA (i.e., Commercial, Industrial, Residential)	**WEATHER**	**LAST RAIN (>72 hours or < 72 hours)**	
RESIDENTIAL SUB	MID 70'S	0.01"	

Conveyance (Check one only)	X MS4 Outfall	☐ Other MS4 Structure	☐ Concrete Channel	☐ Earthen Channel	☐ Arroyo/Natural Creek	Comments:		
Material	☐ Concrete	☐ Earthen	☐ Rip-Rap	☐ RCP	☐ CMP	☐ PVC	☐ HDPE	X Steel ☐ Other_____
Shape	X Circular	☐ Elliptical	☐ Box	☐ Trapezoid	☐ Parabolic	☐ Other_____	☐ Single	☐ Double ☐ Triple ☐ Other_____
Dimensions	X Diameter/Dimensions: 18"		☐ Depth: _____	☐ Bottom Width: _____		☐ Top Width: _____		
Submerged	In Water: X No	☐ Partially	☐ Fully		With Sediment: X No	☐ Partially	☐ Fully	
Ownership	☐ SSCAFCA	X City	☐ Private	☐ Unknown	☐ Other_____			
Discharges to	☐ Pond/Depressional Feature	☐ Natural Conveyance	☐ Storm Drain Channel	X Open Space	☐ Other_____			
Flow Status	☐ Flowing	X Dry	☐ Ponded	**Flow Reaches Receiving Water?**	☐ Yes	☐ No		

WATER QUALITY APPEARANCE	**ODOR**	☐ HYDROGEN SULFIDE	☐ MUSTY	☐ SEWAGE	☐ AMMONIA	☐ GASOLINE	X OTHER N/A
		☐ SOAP	☐ CHLORINE	☐ NONE	☐ EARTHY	☐ PESTICIDE	
	COLOR	☐ YELLOW	☐ GREEN	☐ BLUE	☐ BROWN	☐ BLACK	X OTHER N/A
		☐ GRAY	☐ WHITE	☐ COLORLESS			
	FLOATING MATERIALS	☐ TRASH OR DEBRIS	☐ OILY SHEEN	☐ ORGANIC	☐ SCUM	☐ SUDS	X OTHER N/A
		☐ OBJECTS (DESCRIBE)	☐ FECAL MATTER	☐ BIOFILM	☐ NONE		
	OIL AND GREASE	X NONE	☐ DEPOSIT	☐ EMULSION	☐ SHEEN	☐ HEAVY FLOATING CONCENTRATION	
	TURBIDITY	☐ HEAVY CLOUDINESS, OPAQUE		☐ CLOUDY	☐ SOME CLOUDINESS	X NONE	

POTENTIAL SOURCES OF FLOW OBSERVED NEAR SITE	☐ Pool/Spa Discharge	☐ Illicit Connection	☐ Restaurant Washing write restaurant name in comments	☐ Illegal Dumping	☐ Sewage	☐ Groundwater
	☐ Irrigation Runoff	☐ Vehicle Washing	☐ Water Line Break	☐ Permitted Discharge	☐ Power Washing	☐ Other
	DESCRIBE ALL SOURCES: NONE					

OTHER VISUAL OBSERVATIONS

Outfall Damage	☐ Cracking or Chipping	☐ Corrosion	☐ Peeling Paint	X None	☐ Other_____
Deposits/Stains	☐ Flow Line	☐ Oily	☐ Paint	X None	☐ Other_____
Abnormal Vegetation	X Excessive	☐ Inhibited			
Pipe benthic growth	☐ Brown	☐ Orange	☐ Green	X None	☐ Other_____

FIELD MEASUREMENTS (Taken in duplicate)	TEMP (degree C)	pH	CONDUCTIVITY (uS/cm)
	TEMP (degree C)	pH	CONDUCTIVITY (uS/cm)

GRAB COLLECTION TIME:	**Grab samples collected:** (Circle all that apply) Ammonia, Bacteria, Boron, Chlorine, Color, Detergents, Fluoride, Hardness, Potassium, Surfactants	
QA/QC SAMPLES:	☐ Field Duplicate	☐ Field Blank

FLOW ESTIMATION Flow Yes / (No) Ponded — Evidence of overland flow near sampling location? Yes / (No)

Marsh-McBirney used for flow measurements? Yes / No

Flowing Creek (Marsh-McBirney or leaf method)	Filling a Bottle	Flowing Pipe
1. Width (ft or in) _____	1. Volume (mL or L) _____	1. Pipe Diameter (ft or in) _____
2. Depth (ft or in) _____	2. Time to fill (sec) _____	2. Depth (ft or in) _____
3. Velocity (ft or in / sec) _____		3. Velocity (ft or in / sec) _____
Flow _____	Flow _____	Flow _____

PHOTOS TAKEN: ☐ YES X NO	**COMMENTS:** OUTFALL SITE WAS DRY DURING THIS FIELD VISIT.
INVESTIGATOR SIGNATURE [signature]	NPDES PROJECT MANAGER

CITY OF RIO RANCHO
IDDE INSPECTION FIELD FORM

PROJECT/SURVEY NAME (i.e., Wet, Dry, Incident Tracking, Outfall Recon Inventory)	DATE	TIME	INVESTIGATOR(S)
DRY WEATHER SCREENING	8/18/2017	10:50 AM	X JAVIER PETTES
OUTFALL ID	**SUBWATERSHED**	**LATITUDE** 35°17'22"N	**OBSERVER INFO. (Reported by Citizens)**
RIVERS EDGE 3	BARRANCA	**LONGITUDE** 106°35'30"W	ANNUAL
LAND USE IN DRAINAGE AREA (i.e., Commercial, Industrial, Residential)	**WEATHER**	**LAST RAIN (>72 hours or < 72 hours)**	SCREENING
RESIDENTIAL SUB	MID 70's	0.0"	

Conveyance (Check one only)	X MS4 Outfall	☐ Other MS4 Structure	☐ Concrete Channel	☐ Earthen Channel	☐ Arroyo/Natural Creek	Comments:		
Material	☐ Concrete	☐ Earthen	☐ Rip-Rap	X RCP	☐ CMP	☐ PVC	☐ HDPE	☐ Steel ☐ Other_____
Shape	X Circular	☐ Elliptical	☐ Box	☐ Trapezoid	☐ Parabolic	☐ Other_____	☐ Single	☐ Double ☐ Triple ☐ Other_____
Dimensions	X Diameter/Dimensions: 60"		☐ Depth: _____	☐ Bottom Width: _____		☐ Top Width: _____		
Submerged	In Water: X No	☐ Partially	☐ Fully		With Sediment: X No	☐ Partially	☐ Fully	
Ownership	☐ SSCAFCA	X City	☐ Private	☐ Unknown	☐ Other_____			
Discharges to	☐ Pond/Depressional Feature	☐ Natural Conveyance	☐ Storm Drain Channel	X Open Space	☐ Other_____			
Flow Status	☐ Flowing	X Dry	☐ Ponded		**Flow Reaches Receiving Water?**	☐ Yes	☐ No	

WATER QUALITY APPEARANCE	**ODOR**	☐ HYDROGEN SULFIDE	☐ MUSTY	☐ SEWAGE	☐ AMMONIA	☐ GASOLINE	X OTHER N/A
		☐ SOAP	☐ CHLORINE	☐ NONE	☐ EARTHY	☐ PESTICIDE	
	COLOR	☐ YELLOW	☐ GREEN	☐ BLUE	☐ BROWN	☐ BLACK	X OTHER N/A
		☐ GRAY	☐ WHITE	☐ COLORLESS			
	FLOATING MATERIALS	☐ TRASH OR DEBRIS	☐ OILY SHEEN	☐ ORGANIC	☐ SCUM	☐ SUDS	X OTHER N/A
		☐ OBJECTS (DESCRIBE)	☐ FECAL MATTER	☐ BIOFILM	☐ NONE		
	OIL AND GREASE	X NONE	☐ DEPOSIT	☐ EMULSION	☐ SHEEN	☐ HEAVY FLOATING CONCENTRATION	
	TURBIDITY	☐ HEAVY CLOUDINESS, OPAQUE		☐ CLOUDY	☐ SOME CLOUDINESS	X NONE	

POTENTIAL SOURCES OF FLOW OBSERVED NEAR SITE	☐ Pool/Spa Discharge	☐ Illicit Connection	☐ Restaurant Washing write restaurant name in comments	☐ Illegal Dumping	☐ Sewage	☐ Groundwater
	☐ Irrigation Runoff	☐ Vehicle Washing	☐ Water Line Break	☐ Permitted Discharge	☐ Power Washing	☐ Other
	DESCRIBE ALL SOURCES: NONE					

OTHER VISUAL OBSERVATIONS

Outfall Damage	☐ Cracking or Chipping	☐ Corrosion	☐ Peeling Paint	X None	☐ Other_____
Deposits/Stains	☐ Flow Line	☐ Oily	☐ Paint	X None	☐ Other_____
Abnormal Vegetation	☐ Excessive	☐ Inhibited			
Pipe benthic growth	☐ Brown	☐ Orange	☐ Green	X None	☐ Other_____

FIELD MEASUREMENTS (Taken in duplicate)	TEMP (degree C)	pH	CONDUCTIVITY (uS/cm)	
	TEMP (degree C)	pH	CONDUCTIVITY (uS/cm)	

GRAB COLLECTION TIME:	**Grab samples collected:** (Circle all that apply) Ammonia, Bacteria, Boron, Chlorine, Color, Detergents, Fluoride, Hardness, Potassium, Surfactants	
QA/QC SAMPLES:	☐ Field Duplicate	☐ Field Blank

FLOW ESTIMATION Flow Yes (No) Ponded — Evidence of overland flow near sampling location? Yes (No)

Marsh-McBirney used for flow measurements? Yes / No

Flowing Creek (Marsh-McBirney or leaf method)	Filling a Bottle	Flowing Pipe
1. Width (ft or in) _____	1. Volume (mL or L) _____	1. Pipe Diameter (ft or in) _____
2. Depth (ft or in) _____	2. Time to fill (sec) _____	2. Depth (ft or in) _____
3. Velocity (ft or in / sec) _____		3. Velocity (ft or in / sec) _____
Flow _____	Flow _____	Flow _____

PHOTOS TAKEN: ☐ YES X NO

COMMENTS: OUTFALL SITE WAS DRY DURING THIS FIELD VISIT.

INVESTIGATOR SIGNATURE _____ NPDES PROJECT MANAGER

CITY OF RIO RANCHO
IDDE INSPECTION FIELD FORM

PROJECT/SURVEY NAME (i.e., Wet, Dry, Incident Tracking, Outfall Recon Inventory)	DATE	TIME	INVESTIGATOR(S)
DRY WEATHER SCREENING	8/16/2017	11:15 AM	XAVIER PETTUS
OUTFALL ID	**SUBWATERSHED**	**LATITUDE** 35° 17' 21" N	**OBSERVER INFO. (Reported by Citizens)**
RIVERS EDGE 4	BARRANCA	**LONGITUDE** 106° 35' 35" W	ANNUAL SCREENING
LAND USE IN DRAINAGE AREA (i.e., Commercial, Industrial, Residential)	**WEATHER**	**LAST RAIN (>72 hours or <72 hours)**	
RESIDENTIAL SUB	MID 70'S	0.0"	

Conveyance (Check one only)	☒ MS4 Outfall	☐ Other MS4 Structure	☐ Concrete Channel	☐ Earthen Channel	☐ Arroyo/Natural Creek	Comments:			
Material	☐ Concrete	☐ Earthen	☐ Rip-Rap	☒ RCP	☐ CMP	☐ PVC	☐ HDPE	☐ Steel	☐ Other_____
Shape	☐ Circular	☐ Elliptical	☐ Box	☐ Trapezoid	☐ Parabolic	☐ Other_____	☐ Single	☐ Double	☐ Triple ☐ Other_____
Dimensions	☒ Diameter/Dimensions: 30"		☐ Depth: _____	☐ Bottom Width: _____		☐ Top Width: _____			
Submerged	In Water: ☒ No	☐ Partially	☐ Fully		With Sediment: ☒ No	☐ Partially	☐ Fully		
Ownership	☐ SSCAFCA	☒ City	☐ Private	☐ Unknown	☐ Other_____				
Discharges to	☐ Pond/Depressional Feature	☐ Natural Conveyance	☐ Storm Drain Channel	☒ Open Space	☐ Other_____				
Flow Status	☐ Flowing	☒ Dry	☐ Ponded		**Flow Reaches Receiving Water?**	☐ Yes	☐ No		

WATER QUALITY APPEARANCE								
ODOR	☐ HYDROGEN SULFIDE	☐ MUSTY	☐ SEWAGE	☐ AMMONIA	☐ GASOLINE	☒ OTHER	N/A	
	☐ SOAP	☐ CHLORINE	☐ NONE	☐ EARTHY	☐ PESTICIDE			
COLOR	☐ YELLOW	☐ GREEN	☐ BLUE	☐ BROWN	☐ BLACK	☒ OTHER	N/A	
	☐ GRAY	☐ WHITE	☐ COLORLESS					
FLOATING MATERIALS	☐ TRASH OR DEBRIS	☐ OILY SHEEN	☐ ORGANIC	☐ SCUM	☐ SUDS	☒ OTHER	N/A	
	☐ OBJECTS (DESCRIBE)	☐ FECAL MATTER	☐ BIOFILM	☐ NONE				
OIL AND GREASE	☒ NONE	☐ DEPOSIT	☐ EMULSION	☐ SHEEN	☐ HEAVY FLOATING CONCENTRATION			
TURBIDITY	☐ HEAVY CLOUDINESS, OPAQUE		☐ CLOUDY	☐ SOME CLOUDINESS	☐ NONE			

POTENTIAL SOURCES OF FLOW OBSERVED NEAR SITE	☐ Pool/Spa Discharge	☐ Illicit Connection	☐ Restaurant Washing write restaurant name in comments	☐ Illegal Dumping	☐ Sewage	☐ Groundwater
	☐ Irrigation Runoff	☐ Vehicle Washing	☐ Water Line Break	☐ Permitted Discharge	☐ Power Washing	☐ Other
	DESCRIBE ALL SOURCES: HOME					

OTHER VISUAL OBSERVATIONS

Outfall Damage	☐ Cracking or Chipping	☐ Corrosion	☐ Peeling Paint	☒ None	☐ Other_____
Deposits/Stains	☐ Flow Line	☐ Oily	☐ Paint	☒ None	☐ Other_____
Abnormal Vegetation	☐ Excessive	☐ Inhibited			
Pipe benthic growth	☐ Brown	☐ Orange	☐ Green	☒ None	☐ Other_____

FIELD MEASUREMENTS (Taken in duplicate)	TEMP (degree C)	pH	CONDUCTIVITY (uS/cm)	
	TEMP (degree C)	pH	CONDUCTIVITY (uS/cm)	

GRAB COLLECTION TIME:	**Grab samples collected:** (Circle all that apply) Ammonia, Bacteria, Boron, Chlorine, Color, Detergents, Fluoride, Hardness, Potassium, Surfactants	
QA/QC SAMPLES:	☐ Field Duplicate	☐ Field Blank

FLOW ESTIMATION — Flow Yes / (No) / Ponded — Evidence of overland flow near sampling location? Yes / (No)

Marsh-McBirney used for flow measurements? Yes / No

Flowing Creek (Marsh-McBirney or leaf method)	Filling a Bottle	Flowing Pipe
1. Width (ft or in) _____	1. Volume (mL or L) _____	1. Pipe Diameter (ft or in) _____
2. Depth (ft or in) _____	2. Time to fill (sec) _____	2. Depth (ft or in) _____
3. Velocity (ft or in / sec) _____		3. Velocity (ft or in / sec) _____
Flow _____	Flow _____	Flow _____

PHOTOS TAKEN: ☐ YES ☒ NO	**COMMENTS:** OUTFALL SITE WAS DRY DURING THIS FIELD VISIT.
INVESTIGATOR SIGNATURE	NPDES PROJECT MANAGER

CITY OF RIO RANCHO
IDDE INSPECTION FIELD FORM

PROJECT/SURVEY NAME (i.e., Wet, Dry, Incident Tracking, Outfall Recon Inventory)	DATE	TIME	INVESTIGATOR(S)
DRY WEATHER SCREENING	8/18/2017	11:35 AM	XAVIER PEREZ
OUTFALL ID	**SUBWATERSHED**	**LATITUDE** 35° 17' 13" N	**OBSERVER INFO. (Reported by Citizens)**
RIVERS EDGE 5	BARRANCA	**LONGITUDE** 106° 35' 42" W	ANNUAL SCREENING
LAND USE IN DRAINAGE AREA (i.e., Commercial, Industrial, Residential)	**WEATHER**	**LAST RAIN (>72 hours or < 72 hours)**	
RESIDENTIAL SUB	80°F	0.0"	

Conveyance (Check one only)	X MS4 Outfall	☐ Other MS4 Structure	☐ Concrete Channel	☐ Earthen Channel	☐ Arroyo/Natural Creek	Comments:			
Material	☐ Concrete	☐ Earthen	☐ Rip-Rap	X RCP	☐ CMP	☐ PVC	☐ HDPE	☐ Steel	☐ Other_____
Shape	X Circular	☐ Elliptical	☐ Box	☐ Trapezoid	☐ Parabolic	☐ Other_____	☐ Single	☐ Double	☐ Triple ☐ Other_____
Dimensions	X Diameter/Dimensions: 48"		☐ Depth: _____	☐ Bottom Width: _____		☐ Top Width: _____			
Submerged	In Water: X No	☐ Partially	☐ Fully		With Sediment:	☐ No	☐ Partially	☐ Fully	
Ownership	☐ SSCAFCA	X City	☐ Private	☐ Unknown	☐ Other_____				
Discharges to	☐ Pond/Depressional Feature	☐ Natural Conveyance	☐ Storm Drain Channel	X Open Space	☐ Other_____				
Flow Status	☐ Flowing	X Dry	☐ Ponded		**Flow Reaches Receiving Water?**	☐ Yes	☐ No		

WATER QUALITY APPEARANCE	**ODOR**	☐ HYDROGEN SULFIDE	☐ MUSTY	☐ SEWAGE	☐ AMMONIA	☐ GASOLINE	X ☐ OTHER N/A
		☐ SOAP	☐ CHLORINE	☐ NONE	☐ EARTHY	☐ PESTICIDE	
	COLOR	☐ YELLOW	☐ GREEN	☐ BLUE	☐ BROWN	☐ BLACK	X ☐ OTHER N/A
		☐ GRAY	☐ WHITE	☐ COLORLESS			
	FLOATING MATERIALS	☐ TRASH OR DEBRIS	☐ OILY SHEEN	☐ ORGANIC	☐ SCUM	☐ SUDS	X ☐ OTHER N/A
		☐ OBJECTS (DESCRIBE)	☐ FECAL MATTER	☐ BIOFILM	☐ NONE		
	OIL AND GREASE	X NONE	☐ DEPOSIT	☐ EMULSION	☐ SHEEN	☐ HEAVY FLOATING CONCENTRATION	
	TURBIDITY	☐ HEAVY CLOUDINESS, OPAQUE		☐ CLOUDY	☐ SOME CLOUDINESS	X NONE	

POTENTIAL SOURCES OF FLOW OBSERVED NEAR SITE	☐ Pool/Spa Discharge	☐ Illicit Connection	☐ Restaurant Washing write restaurant name in comments	☐ Illegal Dumping	☐ Sewage	☐ Groundwater
	☐ Irrigation Runoff	☐ Vehicle Washing	☐ Water Line Break	☐ Permitted Discharge	☐ Power Washing	☐ Other
	DESCRIBE ALL SOURCES: NONE					

OTHER VISUAL OBSERVATIONS

Outfall Damage	☐ Cracking or Chipping	☐ Corrosion	☐ Peeling Paint	X ☐ None	☐ Other_____
Deposits/Stains	☐ Flow Line	☐ Oily	☐ Paint	X ☐ None	☐ Other_____
Abnormal Vegetation	☐ Excessive	☐ Inhibited			
Pipe benthic growth	☐ Brown	☐ Orange	☐ Green	X ☐ None	☐ Other_____

FIELD MEASUREMENTS (Taken in duplicate)	TEMP (degree C)	pH	CONDUCTIVITY (uS/cm)	
	TEMP (degree C)	pH	CONDUCTIVITY (uS/cm)	

GRAB COLLECTION TIME:	**Grab samples collected:** (Circle all that apply) Ammonia, Bacteria, Boron, Chlorine, Color, Detergents, Fluoride, Hardness, Potassium, Surfactants	
QA/QC SAMPLES:	☐ Field Duplicate	☐ Field Blank

FLOW ESTIMATION Flow Yes / (No) Ponded — Evidence of overland flow near sampling location? Yes / (No)

Marsh-McBirney used for flow measurements? Yes / No

Flowing Creek (Marsh-McBirney or leaf method)	Filling a Bottle	Flowing Pipe
1. Width (ft or in) _____	1. Volume (mL or L) _____	1. Pipe Diameter (ft or in) _____
2. Depth (ft or in) _____	2. Time to fill (sec) _____	2. Depth (ft or in) _____
3. Velocity (ft or in / sec) _____		3. Velocity (ft or in / sec) _____
Flow _____	Flow _____	Flow _____

PHOTOS TAKEN: ☐ YES X NO	**COMMENTS:** OUTFALL SITE WAS DRY DURING THIS FIELD VISIT.
INVESTIGATOR SIGNATURE X _____	NPDES PROJECT MANAGER

CITY OF RIO RANCHO
IDDE INSPECTION FIELD FORM

PROJECT/SURVEY NAME (i.e., Wet, Dry, Incident Tracking, Outfall Recon Inventory)	DATE	TIME	INVESTIGATOR(S)
DRY WEATHER SCREENING	8/18/2017	12:05 pm	X ANDREE REEVES
OUTFALL ID	**SUBWATERSHED**	**LATITUDE** 35° 17' 06" N / **LONGITUDE** 106° 35' 48" W	**OBSERVER INFO. (Reported by Citizens)**
RIVERS EDGE 6	BARRANCA		ANNUAL SCREENING
LAND USE IN DRAINAGE AREA (i.e., Commercial, Industrial, Residential)	**WEATHER**	**LAST RAIN (>72 hours or < 72 hours)**	
RESIDENTIAL SUB	80°F	0.0"	

Conveyance (Check one only)	X MS4 Outfall	☐ Other MS4 Structure	☐ Concrete Channel	☐ Earthen Channel	☐ Arroyo/Natural Creek	Comments:		
Material	☐ Concrete	☐ Earthen	☐ Rip-Rap	X RCP	☐ CMP	☐ PVC	☐ HDPE	☐ Steel ☐ Other
Shape	X Circular	☐ Elliptical	☐ Box	☐ Trapezoid	☐ Parabolic	☐ Other	☐ Single	☐ Double ☐ Triple ☐ Other
Dimensions	X Diameter/Dimensions: 48"		☐ Depth:	☐ Bottom Width:		☐ Top Width:		
Submerged	In Water: X No	☐ Partially	☐ Fully		With Sediment: X No	☐ Partially	☐ Fully	
Ownership	☐ SSCAFCA	X City	☐ Private	☐ Unknown	☐ Other			
Discharges to	☐ Pond/Depressional Feature	☐ Natural Conveyance	☐ Storm Drain Channel	☐ Open Space	☐ Other			
Flow Status	☐ Flowing	X Dry	☐ Ponded		**Flow Reaches Receiving Water?**	☐ Yes	☐ No	

WATER QUALITY APPEARANCE	**ODOR**	☐ HYDROGEN SULFIDE	☐ MUSTY	☐ SEWAGE	☐ AMMONIA	☐ GASOLINE	X ☐ OTHER N/A
		☐ SOAP	☐ CHLORINE	☐ NONE	☐ EARTHY	☐ PESTICIDE	
	COLOR	☐ YELLOW	☐ GREEN	☐ BLUE	☐ BROWN	☐ BLACK	X ☐ OTHER N/A
		☐ GRAY	☐ WHITE	☐ COLORLESS			
	FLOATING MATERIALS	☐ TRASH OR DEBRIS	☐ OILY SHEEN	☐ ORGANIC	☐ SCUM	☐ SUDS	X ☐ OTHER N/A
		☐ OBJECTS (DESCRIBE)	☐ FECAL MATTER	☐ BIOFILM	☐ NONE		
	OIL AND GREASE	X NONE	☐ DEPOSIT	☐ EMULSION	☐ SHEEN	☐ HEAVY FLOATING CONCENTRATION	
	TURBIDITY	☐ HEAVY CLOUDINESS, OPAQUE		☐ CLOUDY	☐ SOME CLOUDINESS	X ☐ NONE	

POTENTIAL SOURCES OF FLOW OBSERVED NEAR SITE	☐ Pool/Spa Discharge	☐ Illicit Connection	☐ Restaurant Washing write restaurant name in comments	☐ Illegal Dumping	☐ Sewage	☐ Groundwater
	☐ Irrigation Runoff	☐ Vehicle Washing	☐ Water Line Break	☐ Permitted Discharge	☐ Power Washing	☐ Other
	DESCRIBE ALL SOURCES: NONE					

OTHER VISUAL OBSERVATIONS

Outfall Damage	X Cracking or Chipping	☐ Corrosion	☐ Peeling Paint	☐ None	☐ Other EROSION UNDER STILLING BASIN
Deposits/Stains	☐ Flow Line	☐ Oily	☐ Paint	X None	☐ Other
Abnormal Vegetation	☐ Excessive	☐ Inhibited			
Pipe benthic growth	☐ Brown	☐ Orange	☐ Green	X None	☐ Other

FIELD MEASUREMENTS (Taken in duplicate)	TEMP (degree C)	pH	CONDUCTIVITY (uS/cm)	
	TEMP (degree C)	pH	CONDUCTIVITY (uS/cm)	

GRAB COLLECTION TIME:	**Grab samples collected:** (Circle all that apply) Ammonia, Bacteria, Boron, Chlorine, Color, Detergents, Fluoride, Hardness, Potassium, Surfactants		
QA/QC SAMPLES:	☐ Field Duplicate	☐ Field Blank	

FLOW ESTIMATION — Flow Yes / (No)? Ponded — Evidence of overland flow near sampling location? Yes / (No)

Marsh-McBirney used for flow measurements? Yes / No

Flowing Creek (Marsh-McBirney or leaf method)	Filling a Bottle	Flowing Pipe
1. Width (ft or in) _____	1. Volume (mL or L) _____	1. Pipe Diameter (ft or in) _____
2. Depth (ft or in) _____	2. Time to fill (sec) _____	2. Depth (ft or in) _____
3. Velocity (ft or in / sec) _____		3. Velocity (ft or in / sec) _____
Flow _____	Flow _____	Flow _____

PHOTOS TAKEN: ☐ YES X NO	**COMMENTS:** OUTFALL WAS DRY DURING THIS SITE VISIT
INVESTIGATOR SIGNATURE _____	NPDES PROJECT MANAGER

CITY OF RIO RANCHO
IDDE INSPECTION FIELD FORM

PROJECT/SURVEY NAME (i.e., Wet, Dry, Incident Tracking, Outfall Recon Inventory)	DATE	TIME	INVESTIGATOR(S)
DRY WEATHER SCREENING	8/16/2017	12:30 pm	XAVIER PETTET
OUTFALL ID	**SUBWATERSHED**	**LATITUDE** 35° 17' 54" N	**OBSERVER INFO. (Reported by Citizens)**
RIVERS EDGE 7	BARRANCA	**LONGITUDE** 106° 35' 50" W	ANNUAL
LAND USE IN DRAINAGE AREA (i.e., Commercial, Industrial, Residential)	**WEATHER**	**LAST RAIN (>72 hours or < 72 hours)**	SCREENING
RESIDENTIAL SUB	MID 80'S	0.0"	

									Comments:
Conveyance (Check one only)	☐ MS4 Outfall	☐ Other MS4 Structure	☐ Concrete Channel	☒ Earthen Channel	☐ Arroyo/Natural Creek				
Material	☐ Concrete	☒ Earthen	☐ Rip-Rap	☐ RCP	☐ CMP	☐ PVC	☐ HDPE	☐ Steel	☐ Other_____
Shape	☐ Circular	☐ Elliptical	☐ Box	☐ Trapezoid	☐ Parabolic	☒ Other INCISED	☐ Single	☐ Double	☐ Triple ☐ Other_____
Dimensions	☐ Diameter/Dimensions: _____		☐ Depth: _____	☐ Bottom Width: _____		☐ Top Width: _____			
Submerged	In Water:	☒ No	☐ Partially	☐ Fully	With Sediment:	☐ No	☐ Partially	☐ Fully	
Ownership	☐ SSCAFCA	☒ City	☐ Private	☐ Unknown	☐ Other_____				
Discharges to	☐ Pond/Depressional Feature	☐ Natural Conveyance	☐ Storm Drain Channel	☒ Open Space	☐ Other_____				
Flow Status	☐ Flowing	☒ Dry	☐ Ponded		**Flow Reaches Receiving Water?**	☐ Yes	☐ No		

WATER QUALITY APPEARANCE	**ODOR**	☐ HYDROGEN SULFIDE	☐ MUSTY	☐ SEWAGE	☐ AMMONIA	☐ GASOLINE	☒ OTHER N/A
		☐ SOAP	☐ CHLORINE	☐ NONE	☐ EARTHY	☐ PESTICIDE	
	COLOR	☐ YELLOW	☐ GREEN	☐ BLUE	☐ BROWN	☐ BLACK	☒ OTHER N/A
		☐ GRAY	☐ WHITE	☐ COLORLESS			
	FLOATING MATERIALS	☐ TRASH OR DEBRIS	☐ OILY SHEEN	☐ ORGANIC	☐ SCUM	☐ SUDS	☒ OTHER N/A
		☐ OBJECTS (DESCRIBE)	☐ FECAL MATTER	☐ BIOFILM	☐ NONE		
	OIL AND GREASE	☒ NONE	☐ DEPOSIT	☐ EMULSION	☐ SHEEN	☐ HEAVY FLOATING CONCENTRATION	
	TURBIDITY	☐ HEAVY CLOUDINESS, OPAQUE		☐ CLOUDY	☐ SOME CLOUDINESS	☒ NONE	

POTENTIAL SOURCES OF FLOW OBSERVED NEAR SITE	☐ Pool/Spa Discharge	☐ Illicit Connection	☐ Restaurant Washing write restaurant name in comments	☐ Illegal Dumping	☐ Sewage	☐ Groundwater
	☐ Irrigation Runoff	☐ Vehicle Washing	☐ Water Line Break	☐ Permitted Discharge	☐ Power Washing	☐ Other
	DESCRIBE ALL SOURCES: NONE					

OTHER VISUAL OBSERVATIONS					
Outfall Damage	☐ Cracking or Chipping	☐ Corrosion	☐ Peeling Paint	☒ None	☐ Other_____
Deposits/Stains	☐ Flow Line	☐ Oily	☐ Paint	☒ None	☐ Other_____
Abnormal Vegetation	☐ Excessive	☐ Inhibited			
Pipe benthic growth	☐ Brown	☐ Orange	☐ Green	☒ None	☐ Other_____

FIELD MEASUREMENTS (Taken in duplicate)	TEMP (degree C)	pH	CONDUCTIVITY (uS/cm)	
	TEMP (degree C)	pH	CONDUCTIVITY (uS/cm)	

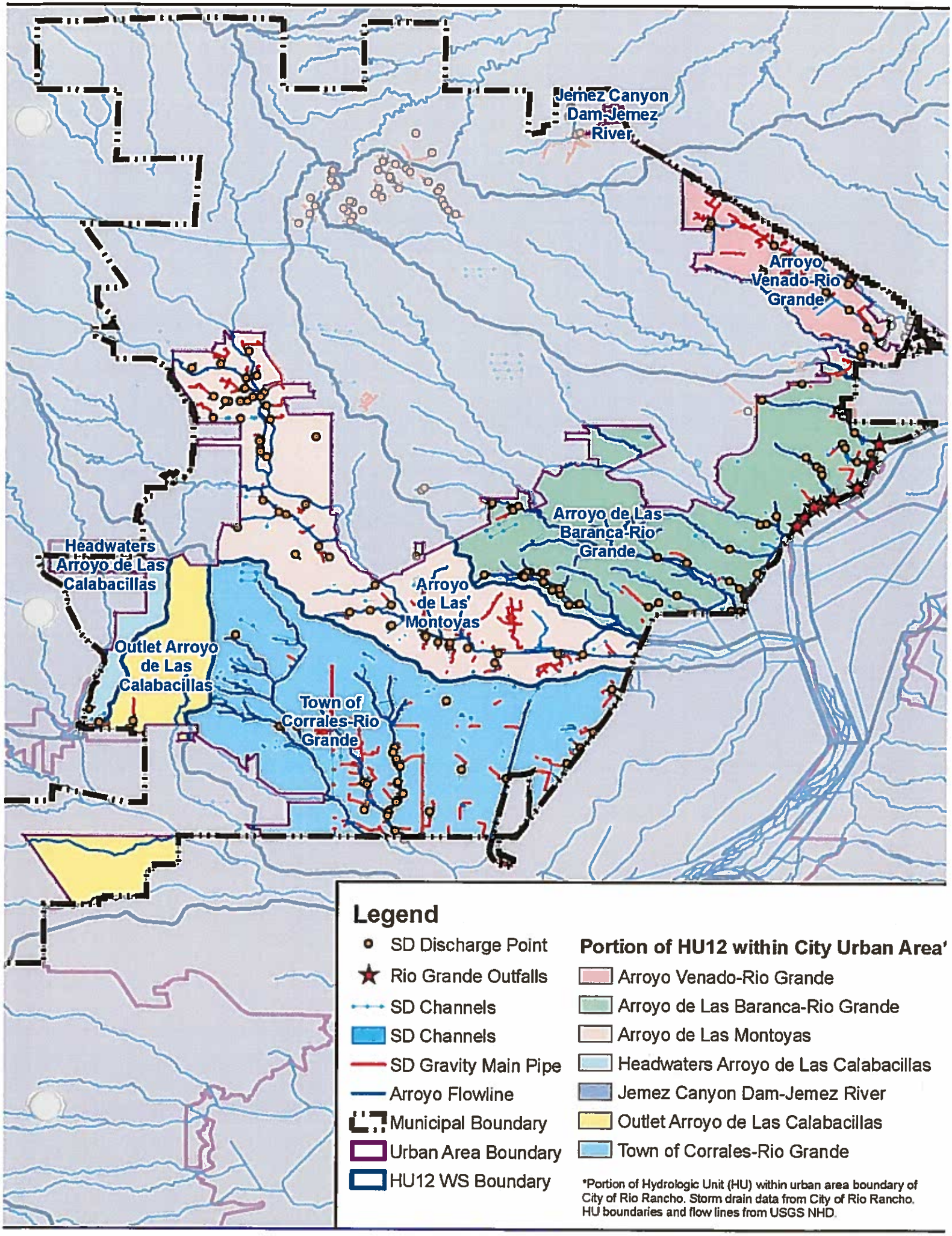
GRAB COLLECTION TIME:	**Grab samples collected:** (Circle all that apply) Ammonia, Bacteria, Boron, Chlorine, Color, Detergents, Fluoride, Hardness, Potassium, Surfactants
QA/QC SAMPLES:	☐ Field Duplicate ☐ Field Blank

FLOW ESTIMATION — Flow Yes / ~~No~~ / Ponded — Evidence of overland flow near sampling location? Yes / ~~No~~

Marsh-McBirney used for flow measurements? Yes / No

Flowing Creek (Marsh-McBirney or leaf method)	Filling a Bottle	Flowing Pipe
1. Width (ft or in) _____	1. Volume (mL or L) _____	1. Pipe Diameter (ft or in) _____
2. Depth (ft or in) _____	2. Time to fill (sec) _____	2. Depth (ft or in) _____
3. Velocity (ft or in / sec) _____		3. Velocity (ft or in / sec) _____
Flow _____	Flow _____	Flow _____

PHOTOS TAKEN:	☐ YES	☒ NO	**COMMENTS:** OUTFALL SITE WAS DRY DURING THIS VISIT.
INVESTIGATOR SIGNATURE			NPDES PROJECT MANAGER


Jemez Canyon Dam-Jemez River
Arroyo Venado-Rio Grande
Arroyo de Las Baranca-Rio Grande
Arroyo de Las Montoyas
Headwaters Arroyo de Las Calabacillas
Outlet Arroyo de Las Calabacillas
Town of Corrales-Rio Grande
Legend
SD Discharge Point
Rio Grande Outfalls
SD Channels
SD Channels
SD Gravity Main Pipe
Arroyo Flowline
Municipal Boundary
Urban Area Boundary
HU12 WS Boundary
Portion of HU12 within City Urban Area*
Arroyo Venado-Rio Grande
Arroyo de Las Baranca-Rio Grande
Arroyo de Las Montoyas
Headwaters Arroyo de Las Calabacillas
Jemez Canyon Dam-Jemez River
Outlet Arroyo de Las Calabacillas
Town of Corrales-Rio Grande
*Portion of Hydrologic Unit (HU) within urban area boundary of City of Rio Rancho. Storm drain data from City of Rio Rancho. HU boundaries and flow lines from USGS NHD.

CMC Wet Season, Wet Weather Stormwater Monitoring Data Verification, Analysis Results, and Reporting

FY 2018 Wet Season (July 1, 2017 to October 31, 2017)

Bohannan Huston

Engineering
Spatial Data
Advanced Technologies

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MEMORANDUM

DATE: February 20, 2018

TO: Jerry Lovato, PE, AMAFCA
Patrick Chavez, PE, AMAFCA

FROM: Craig Hoover, PE
Sarah Ganley, PE
Evan Burn, PE

SUBJECT: **CMC Wet Season, Wet Weather Stormwater Monitoring Data Verification, Analysis Results Database, and Reporting FY 2018 Wet Season (July 1, 2017, to October 31, 2017) Task 28 Reissued Memo**

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 2018 wet season had results that exceeded applicable water quality standards for one or more samples: E. coli, Polychlorinated Biphenyls (PCBs), and Gross Alpha. Table 1 summarizes the samples with exceedances and the applicable water quality standard (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 2018 Wet Season Monitoring

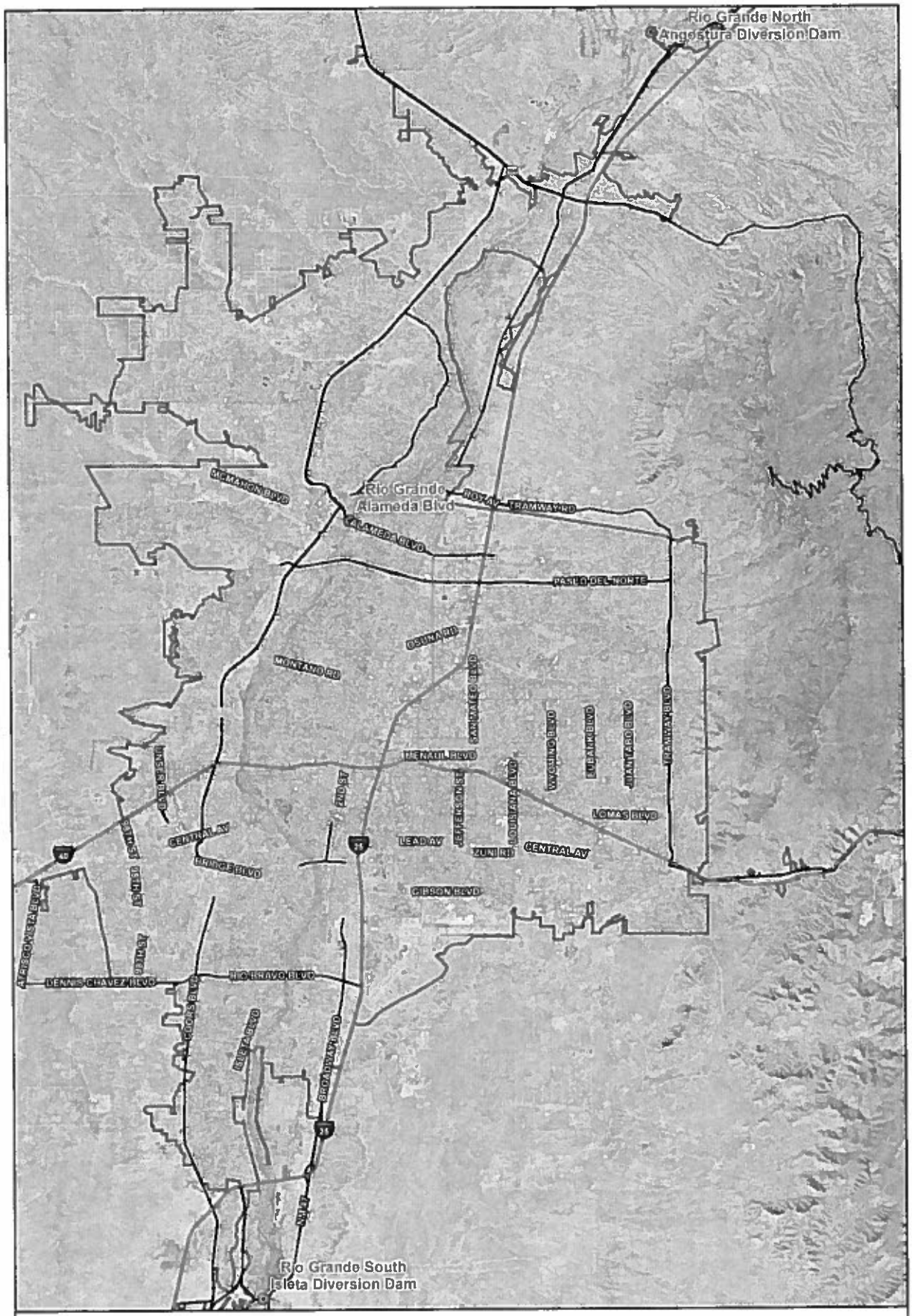
Sampling Date Location	Parameters, Applicable Water Quality Standard (WQS), and Results Exceeding Applicable WQS		
	E. coli	PCBs	Gross Alpha
	WQS: 88 CFU/100 ml Pueblo of Isleta Primary Contact Ceremonial & Recreational	WQS: 0.00017 ug/L Pueblo of Isleta Human Health Criteria (based on fish consumption only)	WQS: 15 pCi/L Pueblo of Isleta (General Standards) and NM domestic water supply and livestock watering
7/28/17 Rio Grande South Isleta Diversion Dam	236 CFU/100ml	0.000215 ug/L	No Exceedance
9/27/17 Rio Grande North Angostura Diversion Dam	733 CFU/100ml	0.00021 ug/L	No Exceedance
9/28/17 Rio Grande South Isleta Diversion Dam	6,131 CFU/100ml	0.00104 ug/L	20.9 pCi/L

Overview of Stormwater Monitoring Activity

Bohannan 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) 2018 (July 1, 2017, to June 30, 2018). 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 being conducted separately by Daniel B. Stephens & Associates, Inc. (DBS&A) and is not a part of this on-call 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 Watershed Based Municipal Separate Storm Sewer System (MS4) Permit, NPDES Permit No. NMR04A000 ("WSB MS4 Permit").

As identified in the CMC Monitoring Plan, the WSB MS4 Permit requires 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 3). Four (4) samples were collected in FY 2017 toward the WSB MS4 Permit requirements. This task assumes the remaining three (3) storm events, weather permitting, will be sampled in FY 2018 (July 1, 2017, to June 30, 2018) at both the Rio Grande North and Rio Grande South locations identified in the CMC Monitoring Plan. In addition, a mid-point E. coli sample may be obtained in the Rio Grande at Alameda Blvd. for each of these events.

Of these three (3) remaining storm events, two (2) samples were collected during the FY 2018 wet season (July 1, 2017, to October 31, 2017). The CMC collected one FY 2018 wet season sample on July 27-28, 2017, and one on September 27-28, 2017.



P:\2016\0302\WR\Reports\Preliminary & Draft\Figures\MXDs\Figure1-CMCMonitoringLocations.mxd
Author: eburn

The CMC Excel based database (created under Task 20) will be updated with the FY 2018 wet weather monitoring data as results are received. The database contains sample location, sample date, analyses conducted, methods used, applicable surface water quality standards (WQS), WSB MS4 Permit required Minimum Qualification Levels (MQL) and results. Any unusable data will be identified.

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 (BOD_5)
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
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 fifteen (15) minutes of sample collection. All E. coli samples were submitted to the laboratory within six (6) hours of collection in order to meet the specified hold time.

Sampling Locations:

The sampling locations are shown in Figure 1, page 3.

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 New Mexico Environment Department (NMED) to meet the WSB MS4 Permit requirements in Part III.A.

During this FY 2018 wet season, an E. coli only sampling point was added within the Rio Grande at Alameda Blvd. This is the location of the NMED defined stream segment divide. 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) as well as by CMC members. Since BHI was not involved, 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 with their field notes and field sample data (temperature, DO, specific conductivity, and pH) for the FY 2018 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 2018 wet season from July 2017 through October 2017. Two (2) qualifying storm events were sampled and analyzed during the FY 2018 wet season.

- **July 27-28, 2017 – Qualifying Storm Event – Full Analysis of Samples.** A sample was collected at the Rio Grande North location beginning at 12:30 p.m. on July 27 and sent to the laboratory for an E. coli only test. The CMC determined that the storm event beginning July 27 was a qualifying storm event. A sample in the Rio Grande at Alameda Blvd. was obtained at 10:30 p.m. and tested for E. coli at the Bernalillo Waste Water Treatment Plant (WWTP). A Rio Grande South sample was collected beginning at 8:45 a.m. on July 28; the samples from the North (from July 27) and South locations were taken to the HEAL laboratory for full parameter testing.
- **September 27-28, 2017 – Qualifying Storm Event – Full Analysis of Samples.** A sample was collected at the Rio Grande North location beginning at 12:00 p.m. on September 27 and sent to the laboratory for an E. coli only test. The CMC determined the storm event beginning September 27 was a qualifying storm event. A sample in the Rio Grande at Alameda Blvd. was obtained at 10:00 p.m. and tested for E. coli at the Bernalillo WWTP. A Rio Grande South sample was collected beginning at 1:40 p.m. on September 28; the samples from the North (from September 27) and South locations were taken to the laboratory for full parameter testing.

Stormwater Quality Database for CMC

As stated previously, there were two (2) qualifying storm events during the FY 2018 wet season, wet weather monitoring which occurred July 27-28 and September 27-28. 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 and Bernalillo WWTP lab 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 2018 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 WQS 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.

Upon receipt of the lab reports, water quality data was entered in to the database. All data entered in to 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. In addition, the E. coli only samples from the Rio Grande Alameda location were also entered into the database.

Data Verification and Validation:

The HEAL laboratory 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 Water Quality Standard 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 (U.S. 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.

There were not any CMC FY 2018 wet season data that did not meet 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 2018 Wet Season Assessment and Evaluation of Monitoring Results

The EPA approved WSB MS4 CMC Monitoring Plan, May 5, 2016, has thirty-three (33) parameters to monitor at the Rio Grande North and Rio Grande South monitoring locations. Of these thirty-three (33) parameters, thirteen (13) parameters were not detected in either of the FY 2018 wet season samples at either the Rio Grande North or South locations. Refer to Table 2 for a list of the parameters that were not detected.

Table 2: Parameters Not Detected
CMC FY 2018 Wet Season Monitoring

Parameters Not Detected	
Tetrahydrofuran	Dieldren
Benzo(a)pyrene	Pentachlorophenol
Benzo(b)fluoranthene (3, 4 Benzofluoranthene)	Benzidine
Benzo(k)fluoranthene	Benzo(a)anthracene
Chrysene	Dibenzofuran
Indeno(1,2,3-cd)Pyrene	Dibenzo(a,h)anthracene
Chromium VI (Hexavalent)	

For the remaining twenty (20) parameters on the CMC monitoring parameter list, only three parameters (E. coli, PCBs, and gross alpha) 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 2018 wet season. These exceedances are summarized on Table 1, page 1 and discussed below in further detail.

E. coli:

The E. coli results collected during the FY 2018 wet season are summarized in Table 3.

Table 3: E. coli Results
CMC FY 2018 Wet Season Monitoring

Date – Rio Grande Location	E. coli Results (CFU/100 ml)
July 27, 2017 – North	20
July 27, 2017 – Alameda	52
July 28, 2017 – South	236
Sept. 27, 2017 – North	733
Sept. 27, 2017 – Alameda	Result not usable
Sept. 28, 2017 – South	6,131

At the Rio Grande North location (upstream of the Albuquerque UA, at the Angostura Diversion Dam), two (2) samples were collected and tested for E. coli, and one (1) of the samples, the September 27-28, 2017 sample, had results that exceeded the primary contact-single sample Pueblo of Isleta and Pueblo of Sandia WQS (88 CFU/100 mL) as well as the primary contact-single sample NMAC WQS (410 CFU/100 ml). At the Rio Grande South location (downstream of the MS4 UA), two (2) samples were collected and tested for E. coli, and both of these samples had results that exceeded the Pueblo of Isleta and Pueblo of Sandia WQS (88 CFU/100 mL) and one (1) of the samples, the September 27-28, 2017 sample, also exceeded the primary contact-single sample NMAC WQS (410 CFU/100 ml).

In addition, the CMC added an E. coli sample point in the Rio Grande at Alameda. This added analysis point was based on discussions with NMED in February 2017 on collecting actual data at

the stream segment divide verses using an area percentage (as defined in the TMDL) for E. coli loading calculations. For both FY 2018 wet season storm events, a sample was collected during each storm event at the Alameda location, and this sample was tested by the Bernalillo WWTP. However, the September 27-28, 2017, storm event sample result was not usable for CMC E. coli loading calculations, as the lab reported the result as too numerous to count.

Monthly geometric mean values were not able to be calculated and compared to applicable WQSs because the CMC had only one (1) sample per location in each July and September. 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 WQS 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 WQSs units. Refer to Figure 2 for a graphical representation of wet season E. coli results at the Rio Grande North and Rio Grande South locations

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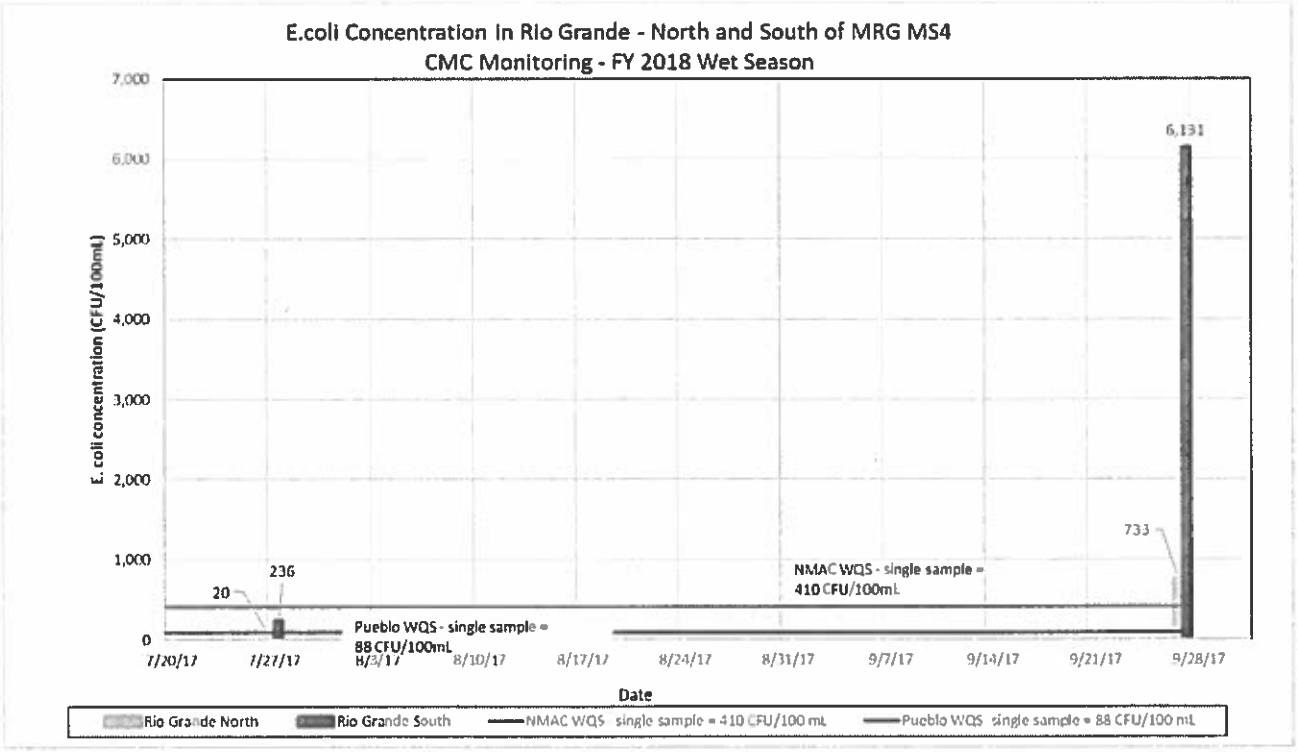


Figure 2: E. coli Results
CMC Monitoring – FY 2018 Wet Season

PCBs:

There are multiple surface water quality standard values listed for PCBs in both the Pueblo of Isleta and the State of New Mexico standards for the various designated uses. The PCBs measured in samples collected from the Rio Grande during the FY 2018 wet season stormwater events were all below the minimum quantification level (MQL) established in U.S. Environmental

Protection Agency (USEPA) standards for MS4 NPDES Permit (Appendix F, 0.2 ug/L for PCBs). The PCB results were also 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, three CMC samples from the Rio Grande were above the Pueblo of Isleta human health criteria (based on fish consumption only) WQS for surface waters, and one of these was also above the New Mexico human health-organism only (fish consumption only) WQS. The human health-organism only criterion is based upon human consumption of fish and other aquatic life that bioaccumulate contaminants over time. The FY 2018 wet season PCB results are shown in Figure 3 relative to various WQSs for PCBs.

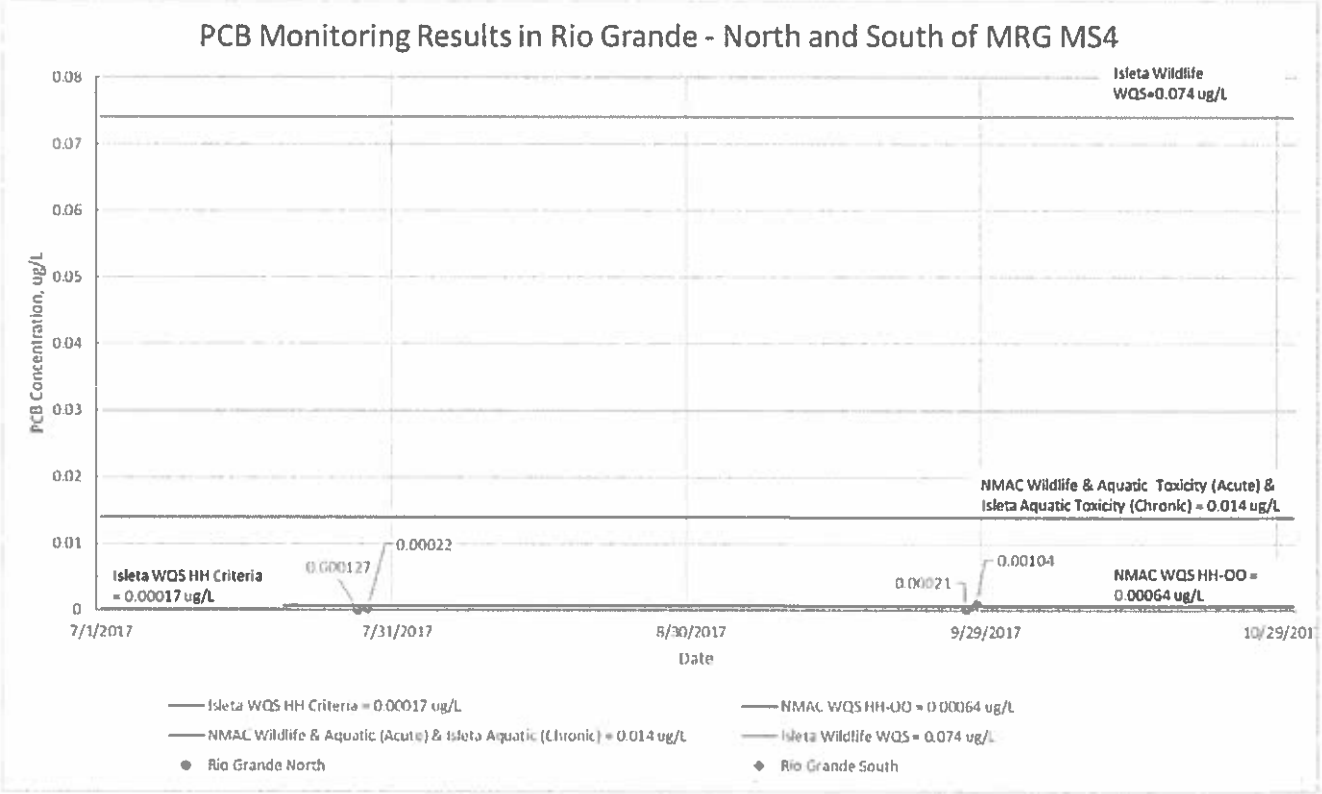


Figure 3: PCB Results
CMC Monitoring – FY 2018 Wet Season

Gross Alpha:

The September 27-28, 2017, Rio Grande South sample results exceeded the New Mexico and Pueblo of Isleta WQS for gross alpha. The WQS for Gross Alpha 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. Once lab results were obtained and reviewed, the CMC was made aware of this exceedance on December 7, 2017. Sampling collection discussions with DBS&A did not note any variances from typical sampling procedures that would have impacted the analytical results for gross alpha (refer to Attachment 3

for additional documentation). In surface water, the gross alpha analyses may be affected by a high content of suspended load, particularly where sediment sources may be derived from granitic terrain; gross alpha results may reflect the radioactivity of the natural elements in the sediment more than the surface water.

The September 27-28, 2017, Rio Grande South Gross Alpha analytical results are detailed below; the units are in picocuries per liter (abbreviated as pCi/L):

- Rio Grande South CMC sample result = 20.9 pCi/L
- WQS at the Rio Grande South (Isleta Diversion Dam) 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 first time the analytical results from a CMC sample has had an exceedance in gross alpha. 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 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 two parameters did not have any surface water quality exceedances during the FY 2018 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 2018 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 during the FY 2018 wet season. Refer to Figure 4 for dissolved oxygen results and comparison to applicable WQS.

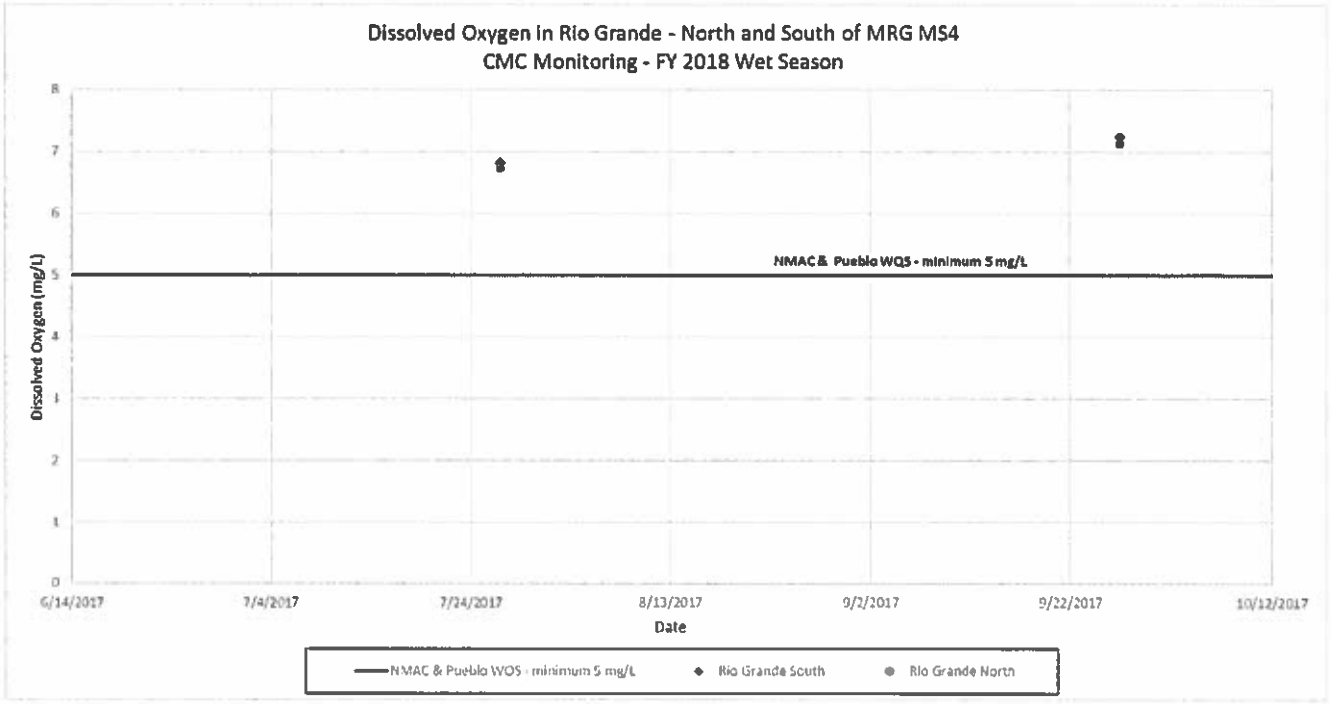


Figure 4: Dissolved Oxygen Results for Rio Grande
CMC Monitoring – FY 2018 Wet Season

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 has proven that stormwater discharges into the Rio Grande are not raising the Rio Grande temperature above the WQS. The data collected during this FY 2018 wet season monitoring supports this conclusion. All the temperature field readings taken in the Rio Grande during the CMC FY 2018 wet season were below 32.2°C (90 °F) - 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 WQS.

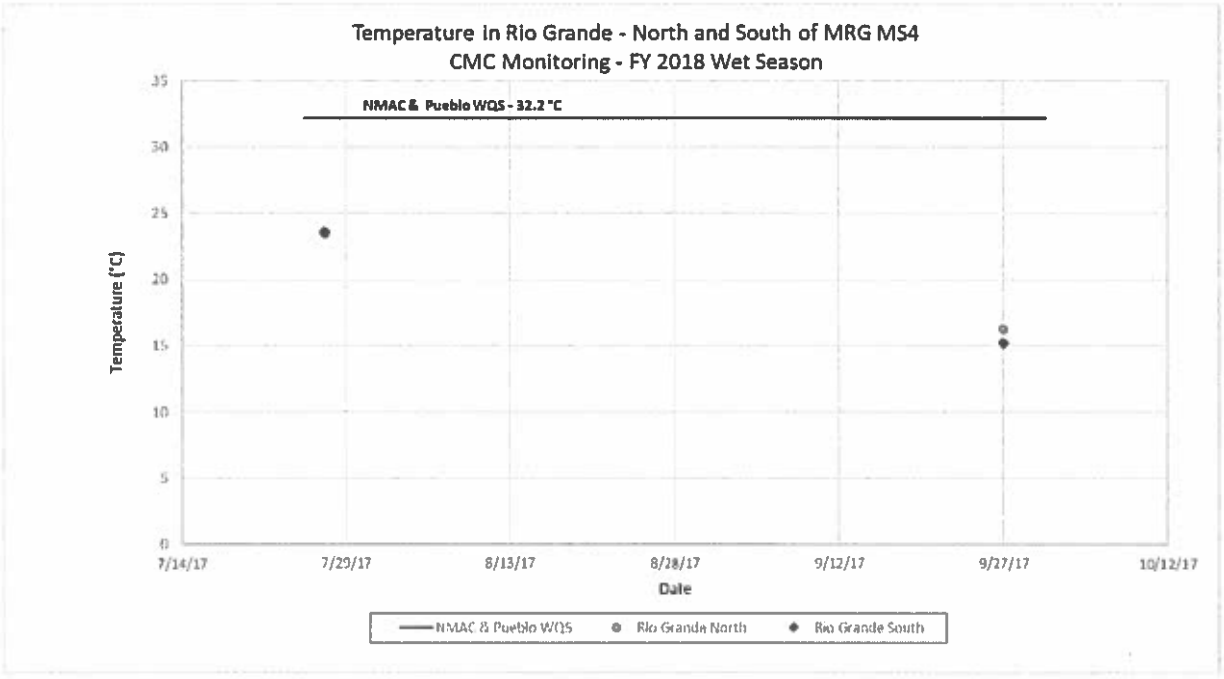


Figure 5: Temperature Monitoring Results in Rio Grande
CMC Monitoring – FY 2018 Wet Season

CMC FY 2018 Wet Season E. coli Loading Calculations and Waste Load Allocation (WLA)

Related to assessing the stormwater results, BHI has calculated the E. coli loading and compared it 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 WQS. 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 US 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.

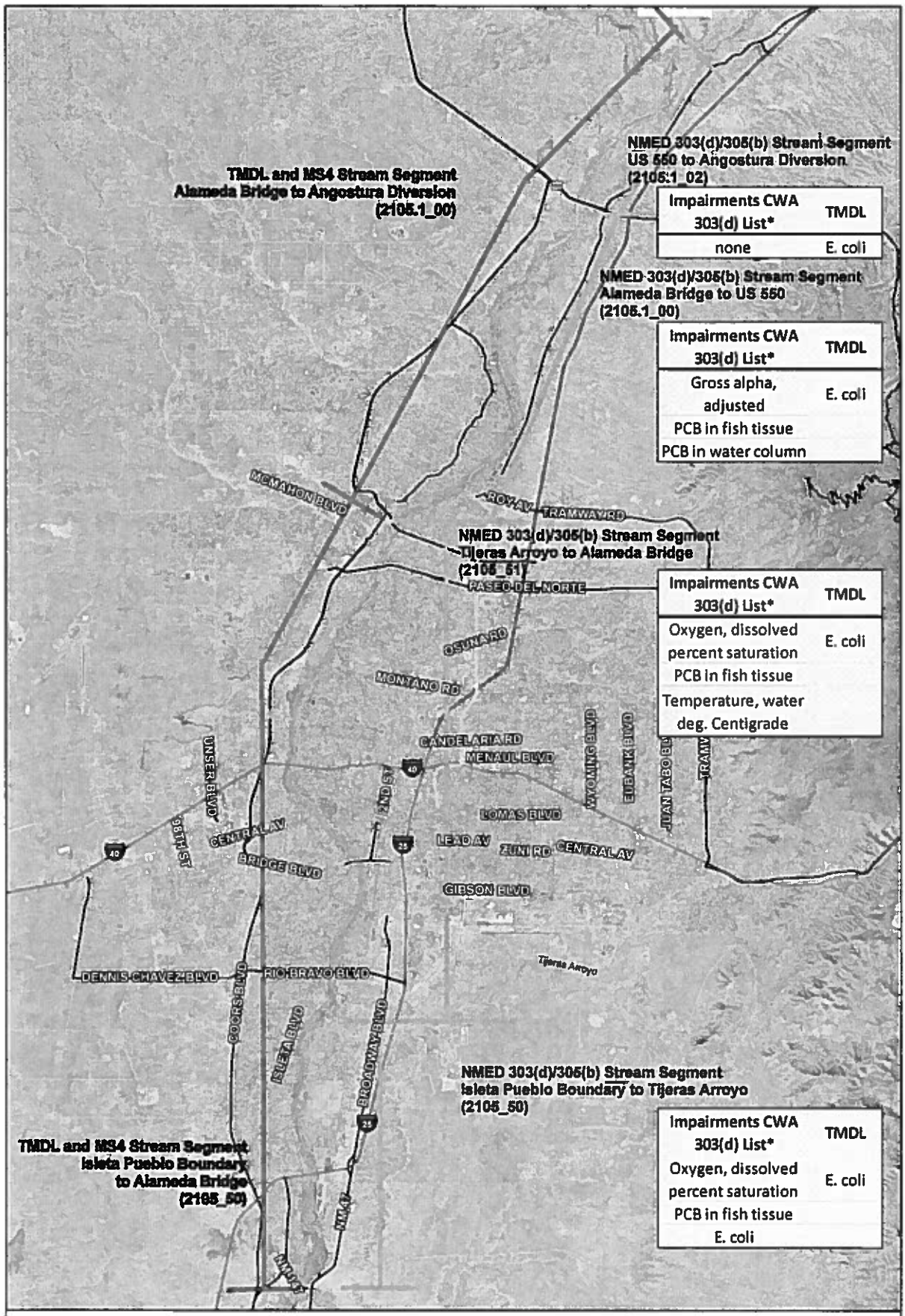
E. coli loading calculations and comparison to the WLA follows the WSB MS4 Permit requirements in "Discharges to Water Quality Impaired Water Bodies with an Approved TMDL," Part I.C.2.b.(i).(c).B, Appendix B-Total Maximum Daily Loads (TMDLs) Tables of the WSB MS4 Permit, and the NMED guidance provided 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 "2016-2018 State of New Mexico Clean Water Act Section 303(d)/Section 305(b) Integrated Report," September 23, 2016. NMED currently has four

(4) stream segments instead of the two (2) WSB MS4 stream segments; of the four (4) segments, only one segment has an impairment for E. coli (2105_50 Isleta Pueblo Boundary to Tijeras Arroyo). These various stream segment designations are shown in Figure 6, page 15.

The NMED 303(d)/305(b) 2016-2018 Integrated Report tables show the most recent assessment results, and currently there is only one segment of the Rio Grande (Isleta to Tijeras) that was found to be impaired for E. coli. However, the TMDL for the other stream segments do not go away even if they are no longer impaired—the TMDL remains in place as a protective measure. TMDLs remain in effect after impairments are removed as protective measures.

The E. coli daily loading associated with the CMC group and comparison to the NMED WLA was completed for the two (2) qualifying event wet season storm events—July 27-28 and September 27-28, 2017. For the July 27-28, 2017 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 river segments. Refer to Table 4 for a summary of the WLA comparison results. A spreadsheet is attached to this memo that provides the detailed calculations.


TMDL and MS4 Stream Segment
Alameda Bridge to Angostura Diversion
(2105.1_00)
NMED 303(d)/305(b) Stream Segment
US 550 to Angostura Diversion
(2105.1_02)
Impairments CWA 303(d) List*
TMDL
none
E. coli
NMED 303(d)/305(b) Stream Segment
Alameda Bridge to US 550
(2105.1_00)
Impairments CWA 303(d) List*
TMDL
Gross alpha, adjusted
PCB in fish tissue
PCB in water column
E. coli
NMED 303(d)/305(b) Stream Segment
Tijeras Arroyo to Alameda Bridge
(2105_51)
Impairments CWA 303(d) List*
TMDL
Oxygen, dissolved percent saturation
PCB in fish tissue
Temperature, water deg. Centigrade
E. coli
NMED 303(d)/305(b) Stream Segment
Isleta Pueblo Boundary to Tijeras Arroyo
(2105_50)
Impairments CWA 303(d) List*
TMDL
Oxygen, dissolved percent saturation
PCB in fish tissue
E. coli
TMDL and MS4 Stream Segment
Isleta Pueblo Boundary
to Alameda Bridge
(2105_50)
MCMAHON BLVD
AROYA AV
TRAMWAY RD
PASEO DEL NORTE
OSUNA RD
MONTANO RD
CANDELARIA RD
MENAUL BLVD
UNSER BLVD
98TH ST
CENTRAL AV
BRIDGE BLVD
2ND ST
LOMAS BLVD
LEAD AV
ZUNI RD
WYOMING BLVD
EUBANK BLVD
JUAN TABO BL
GIBSON BLVD
Tijeras Arroyo
DENNIS CHAVEZ BLVD
RIO BRAVO BLVD
COORS BLVD
ISLETA BLVD
BROADWAY BLVD
Legend
TMDL/MS4 Stream Segments
NMED Stream Segments
North Diversion Channel
Interstate Highway
U.S. Highway
State Highway
AMAFCA
Bohannan Huston
www.bhinc.com
800 877 8332
* Final 2016-2018 State of NM Clean Water Act Section 303(d)/Section 305(b) Integrated Report
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CMC Monitoring
Figure 6
Rio Grande
NMED and MS4 Permit
Stream Segments
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Author: mbaltazar

Table 4: Summary of CMC E. Coli Loading Compared to WLA for the CMC

Date / Stream Segment	Daily Mean Flow (cfs)	Flow Conditions (cfs) *range defined by NMED*	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
July 27-28, 2017 – Rio Grande North E. coli concentration = 20 CFU/100 mL, Rio Grande at Alameda E. coli concentration = 52 CFU/100 mL Rio Grande South E. coli Concentration = 236 CFU/100 mL					
Alameda to Angostura	545	Dry	2.50E+10	3.24E+10	WLA Acceptable
Isleta to Alameda	470	Dry	8.63E+10	1.57E+10	WLA Potential Exceedance
September 27-28, 2017 – Rio Grande North E. coli concentration = 733 CFU/100 mL and Rio Grande South E. coli Concentration = 6,131 CFU/100 mL					
Alameda to Angostura	983	Moist	7.34E+12	9.09E+10	WLA Potential Exceedance
Isleta to Alameda	1,190	Moist	2.18E+12	6.29E+10	WLA Potential Exceedance

As Table 4 illustrates, the E. coli loading for the July 27-28, 2017, storm event for the northern segment (Alameda to Angostura) 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 loading for the southern segment for the July 27-28, 2017, and both segments for the Sept. 27-28, 2017, event all potentially exceeded the CMC allocated WLA.

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 US 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. The 2010 TMDL Report states on page 40, "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 mean 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 February 1, 2017, meeting and the February 16, 2017, CMC discussion with NMED 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 during the FY 2018 wet season. 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

As required in the WSB MS4 Permit, verified stormwater quality data must be submitted annually to the EPA using electronic Discharge Monitoring Report (DMR) forms. Data from the DMRs are uploaded to a comprehensive nation-wide 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 2018 wet season. DMRs with this data are due to EPA on December 1, 2018, and these forms will be completed as directed by AMAFCA, as the delegated data entry member for the CMC.

Conclusions and Planning

During the FY 2018 wet season (July 1 to October 31, 2017), two (2) qualifying stormwater samples were obtained by the CMC. Lab results have been received for all of these samples. 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 2018 wet season show that:

- With the two FY 2018 wet season samples, six (6) of the seven (7) required samples in the WSB MS4 Permit Wet Weather Monitoring section have been obtained. Seven (7) samples are required during the 5-year Permit term, so this is significant progress for the CMC. The CMC has met the required Permit minimum of three (3) events during the wet season.
- 13 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 also 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, three CMC samples from the Rio Grande were above the Pueblo of Isleta human health criteria (based on fish consumption only) WQS for surface waters and one of these was also above the New Mexico human health-organism only (fish consumption only) WQS.
- The September 27-28, 2017, Rio Grande South sample results exceeded the WQS for gross alpha. This is the first time the analytical results from a CMC sample has had an exceedance in gross alpha. The CMC will continue to closely evaluate this parameter in future samples.
- The calculated E. coli loading for the July 27-28, 2017, storm event for the northern segment (Alameda to Angostura) 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 loading for the southern segment for the July 27-28, 2017, and both segments for the September 27-28, 2017, event all potentially exceeded the CMC allocated WLA.

- 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.
- This sampling and calculation approach is only an estimate of the CMC contribution to the E. coli loading which is why the term "potential exceedance" is used.
- The in-stream data does not provide the concentration of E. coli contributed by only the CMC MS4s or any of the other potential sources. By using this percentage calculation approach, if other contributors are in exceedance of the WLA, then the CMC will likely also be in exceedance since this approach relies on a percentage of a total.

For planning purposed for the CMC members, the FY 2018 dry season monitoring activity (weather permitting), analytical results, and E. coli loading calculations will be summarized by BHI for the CMC in a memo due August 15, 2018.

SG/le

Attachments:

Attachment 1 – Hall Environmental Analysis Laboratory Reports with BHI Notes for FY 2018 Wet Season

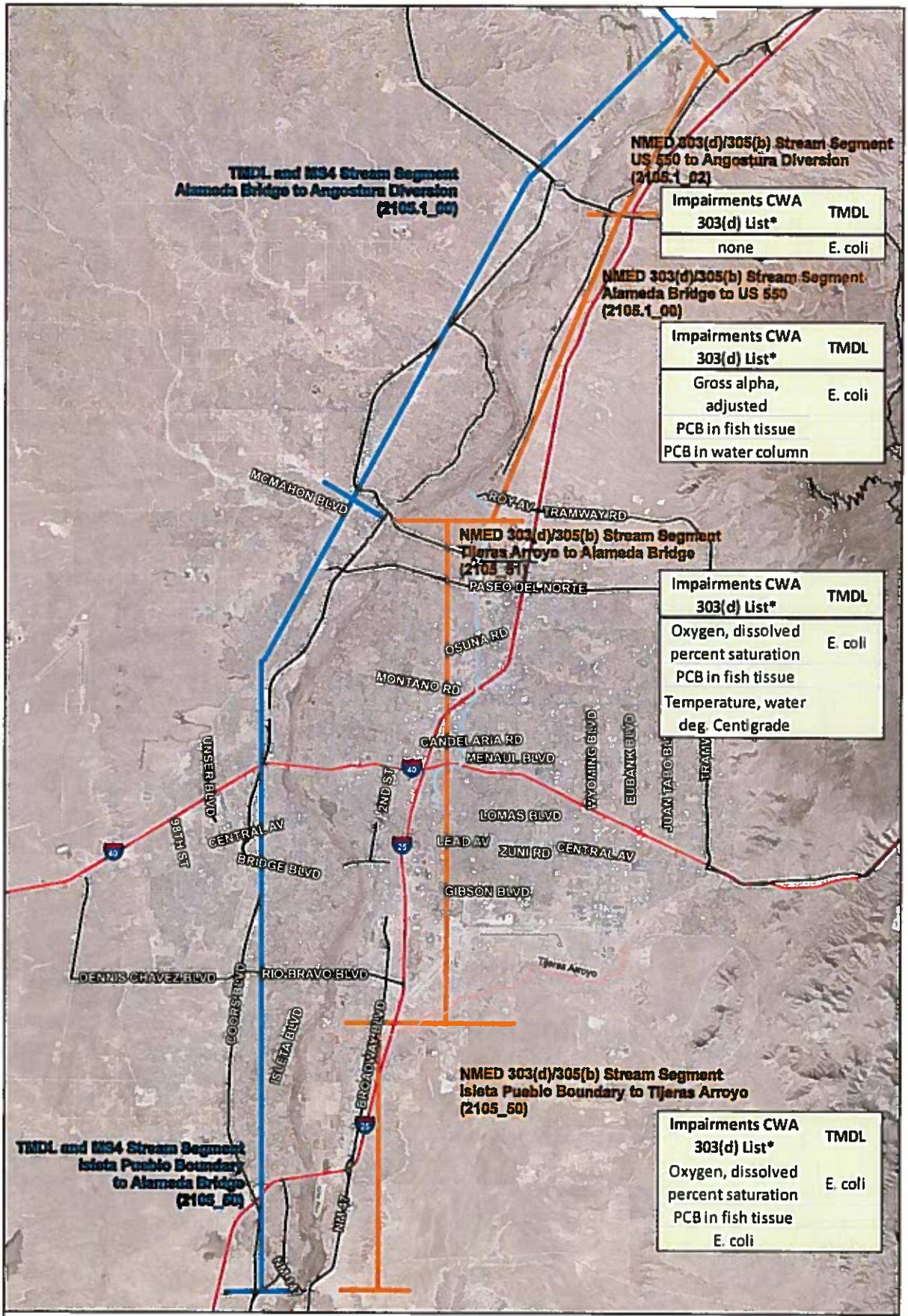
Attachment 2 – FY 2017 Wet Season Completed Data Verification and Validation Forms

Attachment 3 – Documentation from DBS&A Related to September 27-28, 2017, Sample Collection and Gross Alpha Analytical Result

Spreadsheets Included Separately:

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

Excel CMC Spreadsheet with FY 2018 Wet Season Stormwater Quality Monitoring Results



P:\20180302\WR\Reports\Preliminary & Draft\Figures\MXDs\Figure7-TMDLStreamSegments.mxd
Author: mbaltazar

Notification of Exceedance

Albuquerque
Metropolitan
Arroyo
Flood
Control
Authority
2600 Prospect N.E., Albuquerque, NM 87107
Phone: (505) 884-2215 Fax: (505) 884-0214
Website: www.amafca.org

To: United States EPA, Region 6
Compliance Assurance and Enforcement Division
Water Enforcement Branch (6EN-WC)
1445 Ross Avenue
Dallas, Texas 75202-2733

Attention: To Whom It May Concern

Date: February 27, 2018

Re: NPDES MS4 Permit No. NMR04A000 Notification of Exceedance of Pueblo of Isleta Surface Water Quality Standards on September 27, 2017

This letter serves as notification of an exceedance of Pueblo of Isleta surface water quality standards pursuant to MS4 Permit No. NMR04A000 and required under Part I, Section C.1.c of the permit. The table below details the surface water quality standard exceedance for the in-stream sampling event on September 27, 2017.

Description of Water Quality Exceedance

Measured Parameter	Location of in-stream sample	*MS4 Compliance Sampling*	*Citizen Science Sampling**
		Measured Value	Measured Value
E. coli	Angostura Diversion Dam	733 CFU/100ml	
PCB	Angostura Diversion Dam	0.00021 ug/L	

*Indicates that sample was not collected in accordance with a New Mexico Environment Department approved Quality Assurance Project Plan

If there are any additional questions, please contact AMAFCA's Storm Water Quality Engineer, Patrick Chavez, PE, at (505) 884-2215.

me:_____Date:_____

Signature:_____

Albuquerque
Metropolitan
Arroyo
Flood
Control
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2600 Prospect N.E., Albuquerque, NM 87107
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Date: February 27, 2018

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Description of Water Quality Exceedance

Measured Parameter	Location of in-stream sample	*MS4 Compliance Sampling*	*Citizen Science Sampling**
		Measured Value	Measured Value
E. coli	Isleta Diversion Dam	6,131 CFU/100ml	
PCB	Isleta Diversion Dam	0.00104 ug/L	
Gross Alpha	Isleta Diversion Dam	20.9 pCi/L	

*Indicates that sample was not collected in accordance with a New Mexico Environment Department approved Quality Assurance Project Plan

If there are any additional questions, please contact AMAFCA's Storm Water Quality Engineer, Patrick Chavez, PE, at (505) 884-2215.

me:_____ Date:_____

Signature:_____

Albuquerque
Metropolitan
Arroyo
Flood
Control
Authority
2600 Prospect N.E., Albuquerque, NM 87107
Phone: (505) 884-2215 Fax: (505) 884-0214
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Description of Water Quality Exceedance

Measured Parameter	Location of in-stream sample	*MS4 Compliance Sampling*	*Citizen Science Sampling**
		Measured Value	Measured Value
E. coli	Isleta Diversion Dam	236 CFU/100ml	
PCB	Isleta Diversion Dam	0.000215 ug/L	

*Indicates that sample was not collected in accordance with a New Mexico Environment Department approved Quality Assurance Project Plan

If there are any additional questions, please contact AMAFCA's Storm Water Quality Engineer, Patrick Chavez, PE, at (505) 884-2215.

me:_____ Date:_____

Signature:_____

CMC Wet Season, Wet Weather Stormwater Monitoring Data Verification, Analysis Results, and Reporting

FY 2018 Dry Season (November 1, 2017 to June 30, 2018)

Bohannan Huston

Engineering
Spatial Data
Advanced Technologies

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: July 3, 2018

TO: Jerry Lovato, PE, AMAFCA
Patrick Chavez, PE, AMAFCA

FROM: Craig Hoover, PE
Sarah Ganley, PE

SUBJECT: **CMC Wet Season, Wet Weather Stormwater Monitoring Data Verification, Analysis Results Database, and Reporting FY 2018 Dry Season (November 1, 2017 to June 30, 2018) Task 28 Memo**

Notification of In-Stream Water Quality Exceedances

No CMC samples were able to be collected in the FY 2018 dry season (November 1, 2017 to June 30, 2018). Therefore, there are no in-stream water quality exceedances to report for the Compliance Monitoring Cooperative (CMC) monitoring program.

Overview of Stormwater Monitoring Activity

Bohannan Huston, Inc. (BHI) has been tasked to perform water quality services for the CMC Stormwater Data Verification, Database, and Reporting for the Wet Weather Stormwater Quality Monitoring Program for Fiscal Year (FY) 2018 (July 1, 2017 to June 30, 2018). 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 being conducted separately by Daniel B. Stephens & Associates, Inc. (DBS&A) and is not a part of this on-call 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 Watershed Based Municipal Separate Storm Sewer System (MS4) Permit, NPDES Permit No. NMR04A000 ("WSB MS4 Permit").

As identified in the CMC Monitoring Plan, the WSB MS4 Permit requires 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 3 with at least three (3) events in the wet season and two (2) events in the dry season. Four (4) samples were collected in FY 2017 toward the WSB MS4 Permit requirements – three (3) in the wet season and one (1) in the dry season. In addition, two (2) samples were collected during the FY 2018 wet season (July 1, 2017 to October 31, 2017); reporting for these samples is in the February 2, 2018, CMC Wet Season, Wet Weather Stormwater Monitoring Memo. No CMC samples were able to be collected in the FY 2018 dry season (November 1, 2017 to June 30, 2018). Therefore, one (1) dry season storm event remains to be sampled by the CMC

to meet WSB MS4 Permit requirements. The CMC samples obtained to date are summarized in Table 1 below:

Table 1: CMC Sample Summary
Compared to WSB MS4 Requirements

No. of Storm Events Required to Sample	CMC-WSB MS4 Permit Required Samples per Season	FY (Date) Sample Obtained at Rio Grande North and Rio Grande South
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	Remaining Sample for CMC to Obtain
6	Any Season	FY 2018 (Wet Season - 7/27/2017)
7	Any Season	FY 2018 (Wet Season - 9/27/2017)

Stormwater Quality Database for CMC

As stated previously, there were no qualifying storm events sampled for the CMC during the FY 2018 dry season, wet weather monitoring. However, some details were added to the CMC Excel database regarding the Water Quality Criterion. This updated database is included with this memo.

Data Entry for Discharge Monitoring Reports

As required in the WSB MS4 Permit, verified stormwater quality data must be submitted annually to the EPA using electronic Discharge Monitoring Report (DMR) forms. Data from the DMRs are uploaded to a comprehensive nation-wide database that contains discharge data for facilities and other point sources that discharge directly to receiving streams. For this Task, BHI has completed data entry related to the EPA CMC DMRs for the FY 2018 wet season. DMRs with this data are due to EPA on December 1, 2018, and these forms will be submitted to EPA by AMAFCA as the delegated data entry member for the CMC.

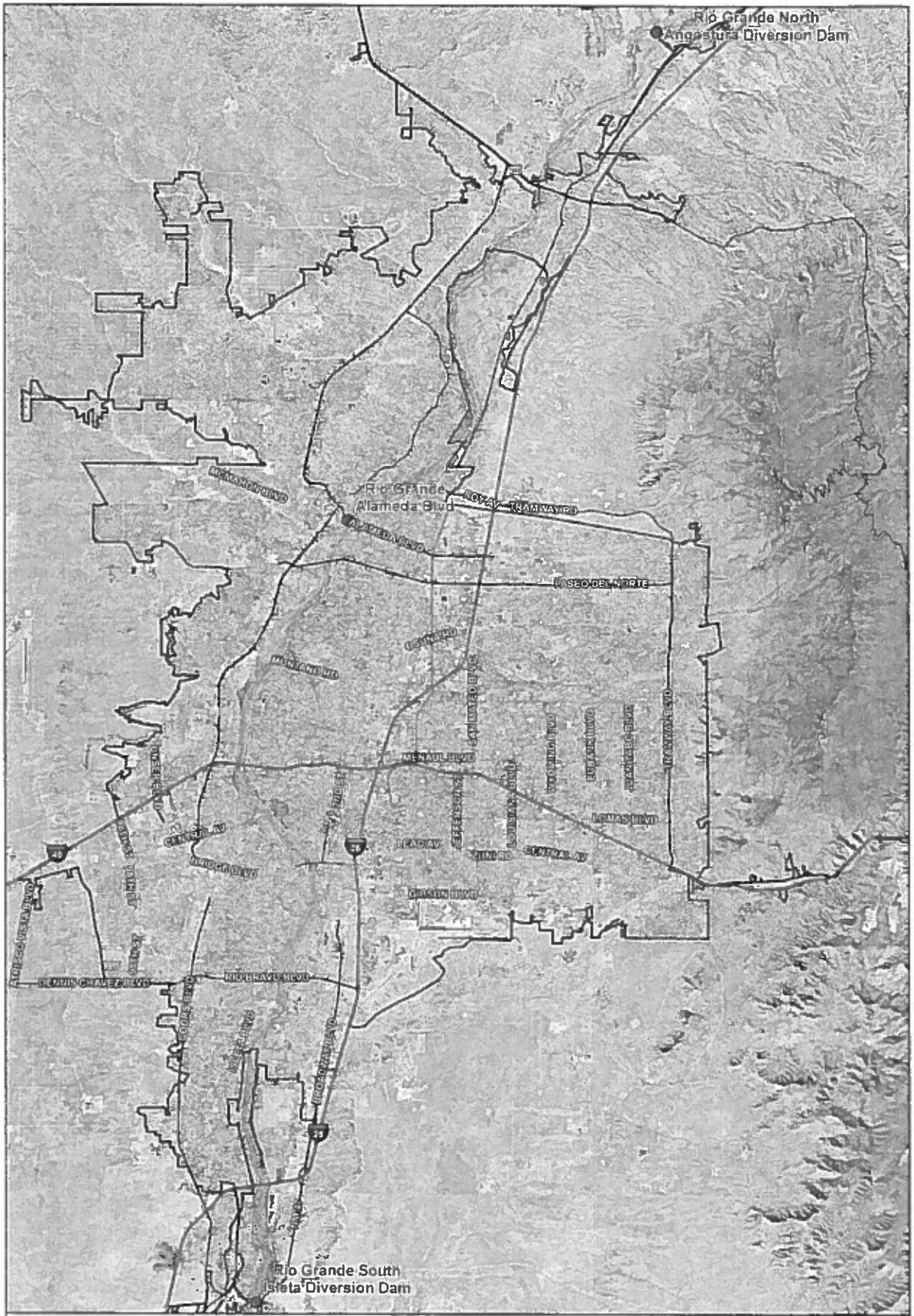
Conclusions and Planning

To summarize:

- With the two FY 2018 wet season samples, six (6) of the seven (7) required samples in the WSB MS4 Permit Wet Weather Monitoring section have been obtained. The CMC has met the required WSB MS4 Permit minimum of three (3) events during the wet season.
- Only one (1) dry season sample remains to be obtained to meet the WSB MS4 Permit requirements for the CMC members.

SG/le

Spreadsheet Included Separately: Excel CMC Spreadsheet updated with water quality criterion details.



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Author: sburn

Discharge Monitoring Report

RioRancho
City of Vision

City of Rio Rancho
3200 Civic Center Circle NE
Rio Rancho, New Mexico 87144-4501
(505) 981-5002 • FAX (505) 981-7274

August 15, 2017

Mr. Jerry Lovato, Executive Engineer
Albuquerque Metropolitan Arroyo Flood Control Authority
2600 Prospect Ave NE
Albuquerque, NM 87107

RE: Memorandum of Understanding for Delegation of Authority for Data Entry into NetDMR System

Dear Mr. Lovato,

As you are aware, twelve permittees covered under the Middle Rio Grande Watershed Based Municipal Separate Storm Sewer System (MS4) General Permit (NPDES No. NMR04A000) have entered into a cooperative agreement for the performance of permit-mandated water quality monitoring. Currently, results from the samples taken during monitoring events are shared among the twelve members of the Compliance Monitoring Cooperative (CMC) and must be entered by each entity into the Network Discharge Monitoring Report (NetDMR) database individually, creating twelve identical (barring typos or other data entry error) records. This is clearly inefficient, at best.

Following discussions between the CMC and the Environmental Protection Agency (EPA), EPA has approved a methodology whereby one member of the CMC will enter data in NetDMR on behalf of any other CMC-member entity. Each CMC-member entity that wishes to participate will delegate authority to the data entry CMC-member entity or their designed contractor, for this purpose. We appreciate Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) volunteering to be the data entry CMC entity on behalf of the CMC.

Therefore, the City of Rio Rancho, Permit Tracking No. NMR04A007, hereby delegates authority for data entry and approval of sampling results into NetDMR to AMAFCA for the purposes of compliance with MS4 General Permit requirements. Please provide us notification, via email, of the completion of data entry for our records.

In the event that AMAFCA becomes unable to perform this function on behalf of the City of Rio Rancho, please notify me a minimum of 60 days prior to the deadline, or by December 1st, for data entry in order to perform this function internally.

Please contact Xavier Pettes via email at xpettes@rrnm.gov or phone at (505)891-5045 if you have questions or concerns regarding this memorandum. Thank you again for your willingness to perform this function on behalf of the membership of the CMC.

Requested
Keith Riesberg
City Manager, City of Rio Rancho

Acknowledged and Accepted
Jerry Lovato, P.E.
Executive Director, AMAFCA

DMR Copy of Record

Permit

Permit #:	NMR04A016	Permittee:	ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY (AMAFCA)	Facility:	ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL (AMAFCA)
Major:	No	Permittee Address:	2600 PROSPECT AVENUE NE ALBUQUERQUE, NM 87107	Facility Location:	2600 PROSPECT AVENUE NE ALBUQUERQUE, NM 87107
Permitted Feature:	001 External Outfall	Discharge:	001-W RIO GRANDE (NORTH) - WET SEASON		

Report Dates & Status

Monitoring Period:	From 07/01/17 to 10/31/17	DMR Due Date:	12/01/18	Status:	NetDMR Validated

Considerations for Form Completion

SEASONAL MONITORING PERIODS ARE: WET SEASON = JULY 1-OCT. 31 & DRY SEASON = NOV. 1-JUNE 30. SEPARATE DMRS REQUIRED FOR EACH SEASON. DMRS TO BE SUBMITTED DUE DEC. 1ST, FOLLOWING END OF MONIT. PERIOD. PERMIT REQUIRES A MIN. OF 7 EVENTS PER LOC. PER PERMIT TERM (3 WET SEASON, 2 DRY SEASON & 2 PERMITTEE'S CHOICE).

Principal Executive Officer

First Name:	Jerry	Title:	Executive Engineer	Telephone:	505-884-2215
Last Name:	Lovato				

No Data Indicator (NODI)

Form NODI: –

Parameter Code	Parameter Name	Monitoring Location	Season #	Param. NODI		Quantity or Loading Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Quality or Concentration Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units	# of Ex.	Frequency of Analysis	Sample Type
00010	Temperature, water deg. centigrade	1 - Effluent Gross	0	–	Sample			<	23.47		=	23.47	=	23.47	04 - deg C			03/PT - Three Per Permit Term	GR - GRAB
					Permit Req.				Req Mon DAILY MN			Req Mon DAILY AV		Req Mon DAILY MX	04 - deg C			03/PT - Three Per Permit Term	GR - GRAB
					Value NODI															
00094	Conductivity	1 - Effluent Gross	0	–	Sample						=	247	=	247	11 - umho/cm			03/PT - Three Per Permit Term	GR - GRAB
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX	11 - umho/cm			03/PT - Three Per Permit Term	GR - GRAB
					Value NODI															
00300	Oxygen, dissolved [DO]	1 - Effluent Gross	0	–	Sample			>	6.73		=	6.73			19 - mg/L			03/PT - Three Per Permit Term	GR - GRAB
					Permit Req.				Req Mon DAILY MN			Req Mon DAILY AV			19 - mg/L			03/PT - Three Per Permit Term	GR - GRAB
					Value NODI															
00310	BOD, 5-day, 20 deg. C	1 - Effluent Gross	0	–	Sample						<	2	<	2	19 - mg/L			03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L			03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
00340	Oxygen demand, chem. [high level] [COD]	1 - Effluent Gross	0	–	Sample						=	19.9	=	19.9	19 - mg/L			03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L			03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
00400	pH	1 - Effluent Gross	0	–	Sample			>	7.37				=	7.37	12 - SU			03/PT - Three Per Permit Term	GR - GRAB
					Permit Req.				Req Mon MINIMUM					Req Mon MAXIMUM	12 - SU			03/PT - Three Per Permit Term	GR - GRAB
					Value NODI															
00530	Solids, total suspended	1 - Effluent Gross	0	–	Sample						=	32	=	32	19 - mg/L			03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L			03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
00556	Oil & Grease	1 - Effluent Gross	0	–	Sample						=	5.17	<	5.17	19 - mg/L			03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L			03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
00625	Nitrogen, Kjeldahl, total [as N]	1 - Effluent Gross	0	–	Sample															
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L			03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI							B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection						
00630	Nitrite + Nitrate total [as N]	1 - Effluent Gross	0	–	Sample						=	0.05	=	0.05	19 - mg/L			03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L			03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
00665	Phosphorus, total [as P]	1 - Effluent Gross	0	–	Sample						=	0.062	=	0.062	19 - mg/L			03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L			03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
00666	Phosphorus, dissolved	1 - Effluent Gross	0	–	Sample						=	0.025	=	0.025	19 - mg/L			03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L			03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
01032	Chromium, hexavalent [as Cr]	1 - Effluent Gross	0	–	Sample															
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L			03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI							B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection						
01040	Copper, dissolved [as Cu]	1 - Effluent Gross	0	–	Sample						=	1.1	=	1.1	28 - ug/L			03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L			03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
01049	Lead, dissolved [as Pb]	1 - Effluent Gross	0	–	Sample															
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L			03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI							B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection						
34230	Benzo(b)fluoranthene	1 - Effluent Gross	0	–	Sample															
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L			03/PT - Three Per Permit Term	CP - COMPOS

				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
				Sample									
34242 Benzo(k)fluoranthene	1 - Effluent Gross	0	--	Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS	
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
				Sample									
34247 Benzo(a)pyrene	1 - Effluent Gross	0	--	Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS	
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
				Sample									
34320 Chrysene	1 - Effluent Gross	0	--	Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS	
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
				Sample									
34403 Indeno(1,2,3-cd)pyrene	1 - Effluent Gross	0	--	Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS	
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
				Sample									
34526 Benzo(a)anthracene	1 - Effluent Gross	0	--	Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS	
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
				Sample									
34556 Dibenz[a,h]anthracene	1 - Effluent Gross	0	--	Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS	
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
				Sample									
39032 Pentachlorophenol	1 - Effluent Gross	0	--	Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS	
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
				Sample	=	5.5		=	5.5	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS	
39100 Di(2-ethylhexyl) phthalate (DEHP)	1 - Effluent Gross	0	--	Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS	
				Value NODI									
				Sample									
39120 Benzidine	1 - Effluent Gross	0	--	Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS	
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
				Sample									
39380 Dieldrin	1 - Effluent Gross	0	--	Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS	
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
				Sample	=	0.0000001		=	0.0000001	19 - mg/L	03/PT - Three Per Permit Term	CP - COMPOS	
39516 Polychlorinated biphenyls (PCBs)	1 - Effluent Gross	0	--	Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L	03/PT - Three Per Permit Term	CP - COMPOS	
				Value NODI									
				Sample	=	20		=	20	32 - CFU/100mL	03/PT - Three Per Permit Term	GR - GRAB	
51040 E. coli	1 - Effluent Gross	0	--	Permit Req.			Req Mon GA GEOAV		Req Mon DAILY MX	32 - CFU/100mL	03/PT - Three Per Permit Term	GR - GRAB	
				Value NODI									
				Sample	=	181		=	181	19 - mg/L	03/PT - Three Per Permit Term	CP - COMPOS	
70295 Solids, total dissolved	1 - Effluent Gross	0	--	Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L	03/PT - Three Per Permit Term	CP - COMPOS	
				Value NODI									
				Sample	=	2.06		=	2.06	17 - pCi/L	03/PT - Three Per Permit Term	CP - COMPOS	
80029 Alpha gross radioactivity	1 - Effluent Gross	0	--	Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	17 - pCi/L	03/PT - Three Per Permit Term	CP - COMPOS	
				Value NODI									
				Sample									
81302 Dibenzofuran	1 - Effluent Gross	0	--	Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS	
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
				Sample									
81607 Tetrahydrofuran	1 - Effluent Gross	0	--	Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS	
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Wet Season Sample Date: 07/27/2017. This data applies to the CMC. EPA has approved this process for CMC members that delegate authority to AMAFCA. DMR data applies to following permits: NMR04A001; NMR04A002; NMR04A003; NMR04A004; NMR04A006; NMR04A007; NMR04A008; NMR04A010; NMR04A013; NMR04A015 and NMR04A016.

Attachments

No attachments.

Report Last Saved By

ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY (AMAFCA)

User:	SGANLEYBHI
Name:	Sarah Ganley
E-Mail:	sganley@bhinc.com
Date/Time:	2018-03-29 09:30 (Time Zone: -05:00)

Report Last Signed By

User:	JLOVATO22
Name:	Jerry Lovato
E-Mail:	jlovato@amafca.org

DMR Copy of Record

Permit

Permit #:	NMR04A016	Permittee:	ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY (AMAFCA)	Facility:	ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL (AMAFCA)
Major:	No	Permittee Address:	2600 PROSPECT AVENUE NE ALBUQUERQUE, NM 87107	Facility Location:	2600 PROSPECT AVENUE NE ALBUQUERQUE, NM 87107
Permitted Feature:	002 External Outfall	Discharge:	002-W RIO GRANDE (SOUTH) - WET SEASON		

Report Dates & Status

Monitoring Period:	From 07/01/17 to 10/31/17	DMR Due Date:	12/01/18	Status:	NetDMR Validated

Considerations for Form Completion

SEASONAL MONITORING PERIODS ARE: WET SEASON = JULY 1-OCT. 31 & DRY SEASON = NOV. 1-JUNE 30. SEPARATE DMRS REQUIRED FOR EACH SEASON. DMRS TO BE SUBMITTED DUE DEC. 1ST, FOLLOWING END OF MONIT. PERIOD. PERMIT REQUIRES A MIN. OF 7 EVENTS PER LOC. PER PERMIT TERM (3 WET SEASON, 2 DRY SEASON & 2 PERMITTEE'S CHOICE).

Principal Executive Officer

First Name:	Jerry	Title:	Executive Engineer	Telephone:	505-884-2215
Last Name:	Lovato				

No Data Indicator (NODI)

Form NODI: –

Parameter Code	Parameter Name	Monitoring Location	Season #	Param. NODI		Quantity or Loading Qualifier 1	Value 1	Qualifier 2	Value 2	Quality or Concentration Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units	# of Ex.	Frequency of Analysis	Sample Type
00010	Temperature, water deg. centigrade	1 - Effluent Gross	0	–	Sample					=	23.6	=	23.6	=	23.6	04 - deg C		03/PT - Three Per Permit Term	GR - GRAB
					Permit Req.						Req Mon DAILY MN		Req Mon DAILY AV		Req Mon DAILY MX	04 - deg C		03/PT - Three Per Permit Term	GR - GRAB
					Value NODI														
00094	Conductivity	1 - Effluent Gross	0	–	Sample							=	361	=	361	11 - umho/cm		03/PT - Three Per Permit Term	GR - GRAB
					Permit Req.								Req Mon DAILY AV		Req Mon DAILY MX	11 - umho/cm		03/PT - Three Per Permit Term	GR - GRAB
					Value NODI														
00300	Oxygen, dissolved [DO]	1 - Effluent Gross	0	–	Sample					=	6.8	=	6.8			19 - mg/L		03/PT - Three Per Permit Term	GR - GRAB
					Permit Req.						Req Mon DAILY MN		Req Mon DAILY AV			19 - mg/L		03/PT - Three Per Permit Term	GR - GRAB
					Value NODI														
00310	BOD, 5-day, 20 deg. C	1 - Effluent Gross	0	–	Sample							<	2	<	2	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.								Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI														
00340	Oxygen demand, chem. [high level] [COD]	1 - Effluent Gross	0	–	Sample							=	15	=	15	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.								Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI														
00400	pH	1 - Effluent Gross	0	–	Sample					=	6.13			=	8.13	12 - SU		03/PT - Three Per Permit Term	GR - GRAB
					Permit Req.						Req Mon MINIMUM				Req Mon MAXIMUM	12 - SU		03/PT - Three Per Permit Term	GR - GRAB
					Value NODI														
00530	Solids, total suspended	1 - Effluent Gross	0	–	Sample							=	63	=	63	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.								Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI														
00556	Oil & Grease	1 - Effluent Gross	0	–	Sample							<	3.7	<	3.7	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.								Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI														
00625	Nitrogen, Kjeldahl, total [as N]	1 - Effluent Gross	0	–	Sample							=	0.84	=	0.84	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.								Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI														
00630	Nitrite + Nitrate total [as N]	1 - Effluent Gross	0	–	Sample							<	0.88	<	0.88	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.								Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI														
00665	Phosphorus, total [as P]	1 - Effluent Gross	0	–	Sample							=	0.33	=	0.33	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.								Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI														
00666	Phosphorus, dissolved	1 - Effluent Gross	0	–	Sample							=	0.25	=	0.25	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.								Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI														
01032	Chromium, hexavalent [as Cr]	1 - Effluent Gross	0	–	Sample														
					Permit Req.								Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI								B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
01040	Copper, dissolved [as Cu]	1 - Effluent Gross	0	–	Sample							=	1.2	=	1.2	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.								Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI														
01049	Lead, dissolved [as Pb]	1 - Effluent Gross	0	–	Sample														
					Permit Req.								Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI								B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
34230	Benzo(b)fluoranthene	1 - Effluent Gross	0	–	Sample														
					Permit Req.								Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS

				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
				Sample									
34242 Benzo[k]fluoranthene	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS		
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
				Sample									
34247 Benzo(a)pyrene	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS		
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
				Sample									
34320 Chrysene	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS		
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
				Sample									
34403 Indeno[1,2,3-cd]pyrene	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS		
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
				Sample									
34526 Benzo[a]anthracene	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS		
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
				Sample									
34556 Dibenz[a,h]anthracene	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS		
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
				Sample									
39032 Pentachlorophenol	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS		
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
				Sample									
39100 Di(2-ethylhexyl) phthalate (DEHP)	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS		
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
				Sample									
39120 Benzidine	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS		
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
				Sample									
39380 Dieldrin	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS		
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
				Sample	=	0.0000002	=	0.0000002	19 - mg/L	03/PT - Three Per Permit Term	CP - COMPOS		
39516 Polychlorinated biphenyls [PCBs]	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L	03/PT - Three Per Permit Term	CP - COMPOS		
				Value NODI									
				Sample	=	235.9	=	235.9	3Z - CFU/100mL	03/PT - Three Per Permit Term	GR - GRAB		
51040 E. coli	1 - Effluent Gross	0	--	Permit Req.		Req Mon DA GEOAV		Req Mon DAILY MX	3Z - CFU/100mL	03/PT - Three Per Permit Term	GR - GRAB		
				Value NODI									
				Sample	=	248	=	248	19 - mg/L	03/PT - Three Per Permit Term	CP - COMPOS		
70295 Solids, total dissolved	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L	03/PT - Three Per Permit Term	CP - COMPOS		
				Value NODI									
				Sample	=	2.15	=	2.15	17 - pCi/L	03/PT - Three Per Permit Term	CP - COMPOS		
80029 Alpha gross radioactivity	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX	17 - pCi/L	03/PT - Three Per Permit Term	CP - COMPOS		
				Value NODI									
				Sample									
81302 Dibenzofuran	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS		
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
				Sample									
81607 Tetrahydrofuran	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L	03/PT - Three Per Permit Term	CP - COMPOS		
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Wet Season Sample Date: 07/28/2017 This data applies to the CMC. EPA has approved this process for CMC members that delegate authority to AMAFCA. DMR data applies to following permits: NMR04A001; NMR04A002; NMR04A003; NMR04A004; NMR04A006; NMR04A007; NMR04A008; NMR04A010; NMR04A013; NMR04A015 and NMR04A016.

Attachments

No attachments.

Report Last Saved By

ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY (AMAFCA)

User:	SGANLEYBHI
Name:	Sarah Ganley
E-Mail:	sganley@bhinc.com
Date/Time:	2018-03-29 12:01 (Time Zone: -05:00)

Report Last Signed By

User:	JLOVATO22
Name:	Jerry Lovato
E-Mail:	jlovato@amafca.org

DMR Copy of Record

Permit

Permit #:	**NMR04A016**	**Permittee:**	ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY (AMAFCA)	**Facility:**	ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL (AMAFCA)
Major:	No	**Permittee Address:**	2600 PROSPECT AVENUE NE ALBUQUERQUE, NM 87107	**Facility Location:**	2600 PROSPECT AVENUE NE ALBUQUERQUE, NM 87107
Permitted Feature:	001 External Outfall	**Discharge:**	001-WA RIO GRANDE (NORTH) - WET SEASON		

Report Dates & Status

Monitoring Period:	From 07/01/17 to 10/31/17	**DMR Due Date:**	12/01/18	**Status:**	**NetDMR Validated**

Considerations for Form Completion

SEASONAL MONITORING PERIODS ARE: WET SEASON = JULY 1-OCT. 31 & DRY SEASON = NOV. 1-JUNE 30. SEPARATE DMRS REQUIRED FOR EACH SEASON. DMRS TO BE SUBMITTED DUE DEC. 1ST, FOLLOWING END OF MONIT. PERIOD. PERMIT REQUIRES A MIN. OF 7 EVENTS PER LOC. PER PERMIT TERM (3 WET SEASON, 2 DRY SEASON & 2 PERMITTEE'S CHOICE).

Principal Executive Officer

First Name:	Jerry	**Title:**	Executive Engineer	**Telephone:**	505-884-2215
Last Name:	Lovato				

No Data Indicator (NODI)

Form NODI: –

Parameter Code	Parameter Name	Monitoring Location	Season #	Param. NODI		Quantity or Loading Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Quality or Concentration Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units	# of Ex.	Frequency of Analysis	Sample Type
00010	Temperature, water deg. centigrade	1 - Effluent Gross	0	--	Sample			=	16.3		=	16.3	=	16.3			04 - deg C		03/PT - Three Per Permit Term	GR - GRAB
					Permit Req.				Req Mon DAILY MN			Req Mon DAILY AV		Req Mon DAILY MX			04 - deg C		03/PT - Three Per Permit Term	GR - GRAB
					Value NODI															
00094	Conductivity	1 - Effluent Gross	0	--	Sample						=	103.4	=	103.4			11 - umho/cm		03/PT - Three Per Permit Term	GR - GRAB
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX			11 - umho/cm		03/PT - Three Per Permit Term	GR - GRAB
					Value NODI															
00300	Oxygen, dissolved [DO]	1 - Effluent Gross	0	--	Sample			=	7.13		=	7.13					19 - mg/L		03/PT - Three Per Permit Term	GR - GRAB
					Permit Req.				Req Mon DAILY MN			Req Mon DAILY AV					19 - mg/L		03/PT - Three Per Permit Term	GR - GRAB
					Value NODI															
00310	BOD, 5-day, 20 deg. C	1 - Effluent Gross	0	--	Sample						=	2	=	2			19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX			19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
00340	Oxygen demand, chem. [high level] [COD]	1 - Effluent Gross	0	--	Sample						=	20.5	=	20.5			19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX			19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
00400	pH	1 - Effluent Gross	0	--	Sample			=	7.83				=	7.83			12 - SU		03/PT - Three Per Permit Term	GR - GRAB
					Permit Req.				Req Mon MINIMUM					Req Mon MAXIMUM			12 - SU		03/PT - Three Per Permit Term	GR - GRAB
					Value NODI															
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample						=	260	=	260			19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX			19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
00556	Oil & Grease	1 - Effluent Gross	0	--	Sample															
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX			19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI							B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection						
00625	Nitrogen, Kjeldahl, total [as N]	1 - Effluent Gross	0	--	Sample						=	0.84	=	0.84			19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX			19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
00630	Nitrite + Nitrate total [as N]	1 - Effluent Gross	0	--	Sample						=	0.2	=	0.2			19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX			19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
00665	Phosphorus, total [as P]	1 - Effluent Gross	0	--	Sample						=	0.28	=	0.28			19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX			19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
00666	Phosphorus, dissolved	1 - Effluent Gross	0	--	Sample						=	0.029	=	0.029			19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX			19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
01032	Chromium, hexavalent [as Cr]	1 - Effluent Gross	0	--	Sample															
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX			28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI							B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection						
01040	Copper, dissolved [as Cu]	1 - Effluent Gross	0	--	Sample						=	0.95	=	0.95			28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX			28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
01049	Lead, dissolved [as Pb]	1 - Effluent Gross	0	--	Sample															
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX			28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI							B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection						
34230	Benzo[b]fluoranthene	1 - Effluent Gross	0	--	Sample															
					Permit Req.							Req Mon DAILY AV		Req Mon DAILY MX			28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS

				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
34242 Benzo(b)fluoranthene	1 - Effluent Gross	0	--	Sample									
				Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX		28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
34247 Benzo(a)pyrene	1 - Effluent Gross	0	--	Sample									
				Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX		28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
34320 Chrysene	1 - Effluent Gross	0	--	Sample									
				Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX		28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
34403 Indeno(1,2,3-cd)pyrene	1 - Effluent Gross	0	--	Sample									
				Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX		28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
34526 Benzo(a)anthracene	1 - Effluent Gross	0	--	Sample									
				Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX		28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
34556 Dibenz(a,h)anthracene	1 - Effluent Gross	0	--	Sample									
				Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX		28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
39032 Pentachlorophenol	1 - Effluent Gross	0	--	Sample									
				Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX		28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
				Sample	<	3.06	<	3.06		28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
39100 Di(2-ethylhexyl) phthalate (DEHP)	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX		28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI									
				Sample									
39120 Benzidine	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX		28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
39380 Dieldrin	1 - Effluent Gross	0	--	Sample									
				Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX		28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
				Sample	<	0.0000002	<	0.0000002		19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
39516 Polychlorinated biphenyls (PCBs)	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX		19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI									
				Sample	<	733	<	733		3Z - CFU/100mL		03/PT - Three Per Permit Term	GR - GRAB
51040 E. coli	1 - Effluent Gross	0	--	Permit Req.		Req Mon DA GEOAV		Req Mon DAILY MX		3Z - CFU/100mL		03/PT - Three Per Permit Term	GR - GRAB
				Value NODI									
				Sample	<	225	<	225		19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
70295 Solids, total dissolved	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX		19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI									
				Sample	<	2.91	<	2.91		17 - pCi/L		03/PT - Three Per Permit Term	CP - COMPOS
80029 Alpha gross radioactivity	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX		17 - pCi/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI									
				Sample									
81302 Dibenzofuran	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX		28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					
				Sample									
81607 Tetrahydrofuran	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY AV		Req Mon DAILY MX		28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI		B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection					

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Wet Season Sample Date: 09/27/2017. This data applies to the CMC. EPA has approved this process for CMC members that delegate authority to AMAFCA. DMR data applies to following permits: NMR04A001; NMR04A002; NMR04A003; NMR04A004; NMR04A006; NMR04A007; NMR04A008; NMR04A010; NMR04A013; NMR04A015 and NMR04A016.

Attachments

No attachments.

Report Last Saved By

ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY (AMAFCA)

User:	SGANLEYBHI
Name:	Sarah Ganley
E-Mail:	sganley@bhinc.com
Date/Time:	2018-03-29 10:02 (Time Zone: -05.00)

Report Last Signed By

User:	JLOVATO22
Name:	Jerry Lovato
E-Mail:	jlovato@amafca.org

DMR Copy of Record

Permit

Permit #:	NMR04A016	**Permittee:**	ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY (AMAFCA)	**Facility:**	ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL (AMAFCA)
Major:	No	**Permittee Address:**	2600 PROSPECT AVENUE NE ALBUQUERQUE, NM 87107	**Facility Location:**	2600 PROSPECT AVENUE NE ALBUQUERQUE, NM 87107
Permitted Feature:	002 External Outfall	**Discharge:**	002-WA RIO GRANDE (SOUTH) - WET SEASON		

Report Dates & Status

Monitoring Period:	From 07/01/17 to 10/31/17	**DMR Due Date:**	12/01/18	**Status:**	NetDMR Validated

Considerations for Form Completion

SEASONAL MONITORING PERIODS ARE: WET SEASON = JULY 1-OCT. 31 & DRY SEASON = NOV. 1-JUNE 30. SEPARATE DMRS REQUIRED FOR EACH SEASON. DMRS TO BE SUBMITTED DUE DEC. 1ST, FOLLOWING END OF MONIT. PERIOD. PERMIT REQUIRES A MIN. OF 7 EVENTS PER LOC. PER PERMIT TERM (3 WET SEASON, 2 DRY SEASON & 2 PERMITTEE'S CHOICE).

Principal Executive Officer

First Name:	Jerry	**Title:**	Executive Engineer	**Telephone:**	505-884-2215
Last Name:	Lovato				

No Data Indicator (NODI)

Form NODI: --

Parameter Code	Parameter Name	Monitoring Location	Season #	Param. NODI		Quantity or Loading Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Quality or Concentration Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units	# of Ex.	Frequency of Analysis	Sample Type
					Sample	=	15.2	=	15.2		=	15.2					04 - deg C		03/PT - Three Per Permit Term	GR - GRAB
00010	Temperature, water deg. centigrade	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY MN		Req Mon DAILY AV			Req Mon DAILY MX					04 - deg C		03/PT - Three Per Permit Term	GR - GRAB
					Value NODI															
					Sample			=	192.2		=	192.2					11 - umho/cm		03/PT - Three Per Permit Term	GR - GRAB
00094	Conductivity	1 - Effluent Gross	0	--	Permit Req.				Req Mon DAILY AV			Req Mon DAILY MX					11 - umho/cm		03/PT - Three Per Permit Term	GR - GRAB
					Value NODI															
					Sample	=	7.23	=	7.23								19 - mg/L		03/PT - Three Per Permit Term	GR - GRAB
00300	Oxygen, dissolved [DO]	1 - Effluent Gross	0	--	Permit Req.		Req Mon DAILY MN		Req Mon DAILY AV								19 - mg/L		03/PT - Three Per Permit Term	GR - GRAB
					Value NODI															
					Sample			=	5		=	5					19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
00310	BOD, 5-day, 20 deg. C	1 - Effluent Gross	0	--	Permit Req.				Req Mon DAILY AV			Req Mon DAILY MX					19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
					Sample			=	36.2		=	36.2					19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
00340	Oxygen demand, chem. [high level] (COD)	1 - Effluent Gross	0	--	Permit Req.				Req Mon DAILY AV			Req Mon DAILY MX					19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
					Sample	=	7.92				=	7.92					12 - SU		03/PT - Three Per Permit Term	GR - GRAB
00400	pH	1 - Effluent Gross	0	--	Permit Req.		Req Mon MINIMUM					Req Mon MAXIMUM					12 - SU		03/PT - Three Per Permit Term	GR - GRAB
					Value NODI															
					Sample			=	810		=	810					19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
00530	Solids, total suspended	1 - Effluent Gross	0	--	Permit Req.				Req Mon DAILY AV			Req Mon DAILY MX					19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
					Sample															
00556	Oil & Grease	1 - Effluent Gross	0	--	Permit Req.				Req Mon DAILY AV			Req Mon DAILY MX					19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI				B - Below Detection Limit/No Detection			B - Below Detection Limit/No Detection								
					Sample			=	1.7		=	1.7					19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
00625	Nitrogen, Kjeldahl, total [as N]	1 - Effluent Gross	0	--	Permit Req.				Req Mon DAILY AV			Req Mon DAILY MX					19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
					Sample			=	0.46		=	0.46					19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
00630	Nitrite + Nitrate total [as N]	1 - Effluent Gross	0	--	Permit Req.				Req Mon DAILY AV			Req Mon DAILY MX					19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
					Sample			=	0.74		=	0.74					19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
00665	Phosphorus, total [as P]	1 - Effluent Gross	0	--	Permit Req.				Req Mon DAILY AV			Req Mon DAILY MX					19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
					Sample			=	0.08		=	0.08					19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
00666	Phosphorus, dissolved	1 - Effluent Gross	0	--	Permit Req.				Req Mon DAILY AV			Req Mon DAILY MX					19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
					Sample															
01032	Chromium, hexavalent [as Cr]	1 - Effluent Gross	0	--	Permit Req.				Req Mon DAILY AV			Req Mon DAILY MX					28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI				B - Below Detection Limit/No Detection			B - Below Detection Limit/No Detection								
					Sample			=	0.96		=	0.96					28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
01040	Copper, dissolved [as Cu]	1 - Effluent Gross	0	--	Permit Req.				Req Mon DAILY AV			Req Mon DAILY MX					28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
					Sample			=	0.47		=	0.47					28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
01049	Lead, dissolved [as Pb]	1 - Effluent Gross	0	--	Permit Req.				Req Mon DAILY AV			Req Mon DAILY MX					28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
					Sample															
34230	Benzo[b]fluoranthene	1 - Effluent Gross	0	--	Permit Req.				Req Mon DAILY AV			Req Mon DAILY MX					28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS

				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
34242 Benzo(b)fluoranthene	1 - Effluent Gross	0	--	Sample									
				Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
34247 Benzo(a)pyrene	1 - Effluent Gross	0	--	Sample									
				Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
34320 Chrysene	1 - Effluent Gross	0	--	Sample									
				Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
34403 Indeno(1,2,3-cd)pyrene	1 - Effluent Gross	0	--	Sample									
				Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
34526 Benzo(a)anthracene	1 - Effluent Gross	0	--	Sample									
				Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
34556 Dibenz(a,h)anthracene	1 - Effluent Gross	0	--	Sample									
				Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
39032 Pentachlorophenol	1 - Effluent Gross	0	--	Sample									
				Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
39100 Di(2-ethylhexyl) phthalate [DEHP]	1 - Effluent Gross	0	--	Sample									
				Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
39120 Beruadne	1 - Effluent Gross	0	--	Sample									
				Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
39380 Dieldrin	1 - Effluent Gross	0	--	Sample									
				Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
39516 Polychlorinated biphenyls [PCBs]	1 - Effluent Gross	0	--	Sample	=	0.000001	=	0.000001	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS	
				Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI									
51040 E. coli	1 - Effluent Gross	0	--	Sample	=	6131	=	6131	3Z - CFU/100mL		03/PT - Three Per Permit Term	GR - GRAB	
				Permit Req.			Req Mon DA GEOAV		Req Mon DAILY MX	3Z - CFU/100mL		03/PT - Three Per Permit Term	GR - GRAB
				Value NODI									
70295 Solids, total dissolved	1 - Effluent Gross	0	--	Sample	=	260	=	260	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS	
				Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI									
80029 Alpha gross radioactivity	1 - Effluent Gross	0	--	Sample	=	20.9	=	20.9	17 - pCi/L		03/PT - Three Per Permit Term	CP - COMPOS	
				Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	17 - pCi/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI									
81302 Dibenzofuran	1 - Effluent Gross	0	--	Sample									
				Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
81607 Tetrahydrofuran	1 - Effluent Gross	0	--	Sample									
				Permit Req.			Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
				Value NODI			B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Wet Season Sample Date: 09/28/2017. This data applies to the CMC. EPA has approved this process for CMC members that delegate authority to AMAFCA. DMR data applies to following permits: NMR04A001; NMR04A002; NMR04A003; NMR04A004; NMR04A006; NMR04A007; NMR04A008; NMR04A010; NMR04A013; NMR04A015 and NMR04A016.

Attachments

No attachments.

Report Last Saved By

ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY (AMAFCA)

User:	SGANLEYBHI
Name:	Sarah Ganley
E-Mail:	sganley@bhinc.com
Date/Time:	2018-03-29 12:05 (Time Zone: -05:00)

Report Last Signed By

User:	JLOVATO22
Name:	Jerry Lovato
E-Mail:	jlovato@amafca.org

Section 4:

Annual Report Responsibilities for Cooperative Programs

Mid Rio Grande Stormwater Quality Team
www.keeptheriogrand.org

Outcomes Report

for

Fiscal Year 2017-2018

(July 1, 2017 - June 30, 2018)

presented by

Phyllis Baker

CWA Strategic Communications

During the period from July 1, 2017 through June 30, 2018, the Mid Rio Grande Stormwater Quality Team (MRGSQT) continued its educational partnerships with the Bosque Ecosystem Monitoring Program (B.E.M.P.) and RiverXchange. The team continued to post relevant information to its website and Facebook page, and also participated in a number of high-profile community events, including the Corrales Harvest Festival, New Mexico's Animal Humane Society's Doggie Dash and Dawdle, and the KOB TV Health & Wellness Fair. The team's interactive kiosk continued its successful run at Rio Rancho's Loma Colorado Public Library. Community outreach continued with various events throughout the year. The team rewrote and produced new print materials on a variety of MS4-related topics, including proper hazardous waste disposal, proper pet waste disposal, stormwater pollution reduction and awareness of hazardous on-the-job chemicals. Updates and improvements to the team's website **keeptheriogrand.com** began.

Team partners and supporters disseminated information on stormwater quality and pollution prevention through municipal water quality reports to stakeholders. Specialty advertising giveaways relating to stormwater quality awareness were ordered/reordered for use at public events. MRGSQT's annual budget for all these activities, excluding Type 9 items, donated hours by team members, and funding for Arroyo Classroom, RiverXchange and B.E.M.P., is $50,000. The contractor, CWA Strategic Communications, donated $2,328.19 in services during the 12-month period. We have summarized the activities below and on the following pages:

WEBSITE (www.keeptheriogrand.org)

The Team contracted with CWA Strategic Communications to redesign the website and the new site is expected to roll out in October 2018. Content and links have been updated and new material added. The site will be more user-friendly and offer Team members an easy way to upload, store and share materials.

FACEBOOK PAGE

In conjunction with the SQT website, a Facebook page contains posts and updated information at: (https://www.facebook.com/Keeptheriogrand). The page has 141 "Likes" and the Team occasionally boosts posts during events to obtain more visibility.

Estimated number of individuals reached by this activity: 141
Permit Reference(s): General SWP, Construction, Pet Waste
Audience(s): Children, Adults

EVENTS

Between July 1, 2017 and June 30, 2018, MRGSQT members and their partner agencies reported participating in a total of 72 community outreach/educational events reaching 28,626 adults and children. ***Details can be found in Exhibit 1 at the end of this report.***

Estimated number of individuals reached by these community outreach/education events (with duplications): 28,626
Permit Reference(s): General SWP, Construction, Pet Waste, Construction, Household Hazardous Waste, Illicit Discharge and Animal Sources
Audience(s): Children, Adults

GENERAL MATERIALS DISTRIBUTION

As appropriate, team members distribute materials at events. Following are inventories of materials on hand from July 1, 2017 through June 30, 2018.

Total estimated number of people reached by these activities: 4,181
Cost per person reached (may be some duplication): $0.60
Permit Reference(s): General SWP, Pet Waste, Household Hazardous Waste
Audience(s): Children, Adults

STORMWATER QUALITY TEAM Inventory					
Item	**Starting Qty as of 7/1/2017**	**Quantity**	**Distributed**	**Ending Qty as of 6/30/2018**	**Cost of Materials Distributed**
"Keep the Rio Grand" Bumper Stickers	798		48	750	$48.00
"Reduce Stormwater Pollution at Home" brochure	170		70	100	$10.00
SQT Brochure - "New Dog or Cat"	2,620		510	2,110	$76.50
Dog-shaped Poop Bag Dispensers	426		340	2,586	$638.66
"Don't Contaminate the River" stickers	1,040		780	260	$148.20
Poo Emoji Squeezies	4,570		430	3,840	$656.61
Morphing Fish Bags (added 1500 more on 8/31/2017)	187	1,500	770	917	$2,816.12
Silicone Pet Food Can lids (added 8/31/2017)		2,500	733	1,767	$833.86
New Pet Rack Cards (added 6/1/18)		5,000	100	4,900	$8.45
FOG Rack Cards (added 6/1/18)		5,000	100	4,900	$8.45
No Poop Fairy Rack Cards (added 6/1/18)		5,000	100	4,900	$8.45
Professionals Harmful Chemicals Rack Card (added 6/1/18)		5,000	100	4,900	$8.45
Reduce Stormwater Pollution at Home Rack Card (added 6/1/18)		5,000	100	4,900	$8.45
Large Stormwater display - 8 ft (updated 6/1/18)	1				$1,155.00
Tabletop Stormwater display - 6 ft (added 6/1/18)	1				$480.00
			4,181		**$2,511.11**

The SQT invested in a smaller tabletop display to take to events with limited space. The larger 8 ft. standing display was also updated with new panels featuring updated information.

EDUCATIONAL ACTIVITIES

Educational Kiosk at Rio Rancho's Main Loma Colorado Library.

The kiosk remained at Rio Rancho's main library through April 2018 and continued to educate citizens (primarily children) about stormwater issues. The kiosk features:

- An interactive stormwater system map where children can press various points to learn the roles arroyos and channels play in the stormwater system and how to keep from polluting that system. The system stretches from Bernalillo on the north through Rio Rancho and into Albuquerque.
- A "Scoop the Poop" game that lets children choose one of three dogs and learn how to properly pick up after that dog. This is important because pet waste is a major source of *E coli* contamination in the Rio Grande.
- An educational panel on common types of trash, debris and chemicals that pollute the Rio Grande including appliances and electronics, automotive products such as oil, batteries and gasoline, glass and cement, household cleaners, yard waste, prescription and over-the-counter medicines.
- A touch screen that includes facts about each arroyo and the Rio Grande.

JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APRIL	MAY/ JUNE	TOTAL
18,456	19,712	16,147	16,173	14,877	12,411	17,274	18,470	18,428	15,486	N/A	**167,434**

Total number of children and adults viewing the kiosk from July 1, 2017 through April 30, 2018. Numbers for May and June, 2018 were not available at the time this report was compiled.

Plans are in the works to upgrade the kiosk, change the software platform of the games for easier access and analytic tracking and conduct some repairs on existing hardware.

STUDENTS AND TEACHERS REACHED THROUGH PARTNER EDUCATIONAL PROGRAMS – ARROYO CLASSROOM, RIVERXCHANGE AND BOSQUE ECOSYSTEM MONITORING PROGRAM (B.E.M.P.)

Arroyo Classroom

The Arroyo Classroom program utilizes natural arroyos as outdoor classrooms and brings local animals into the classroom to motivate third graders to respect the arroyos as important wildlife habitat. In the 2017-2018 school year, the program served 33 classes within the Rio Rancho Public School System, reaching approximately 33 teachers and 770 students.

For more information, see Exhibit 2, Arroyo Classroom's 2017-2018 report to the Mid Rio Grande Stormwater Quality Team.

RiverXchange
RiverXchange is an innovative, long-term outreach program that integrates water resource topics with computer technology, student writing, and a hands-on curriculum to meet specific, measurable outcomes.

Since 2007, the program has enabled upper elementary classes from New Mexico to become "high tech pen pals" with classes outside the state to share what they learn about the geography, culture, and ecology of their local river and watershed. Including these partner classes, the program has served over 14,000 students. Each student spends about 25 hours engaged with the program over the course of the school year. The curriculum incorporates hands-on activities, and multiple classroom presentations by local water resources experts. During the 2017-2018 season, 39 fifth-grade classes, most of which were Title I schools (1,188 students and 42 teachers) participated in New Mexico. RiverXchange conducted 20 classes (612 students) in Bernalillo County and 19 classes (576 students) in Sandoval County

For more information, see Exhibit 3, RiverXchange's 2017-2018 report to the Mid Rio Grande Stormwater Quality Team.

B.E.M.P.
The main objective of the *Stormwater Science* outreach education program of the Bosque Ecosystem Monitoring Program (B.E.M.P.) is to teach students that the health of the Rio Grande is directly related to the health of the surrounding watershed. The *Stormwater Science* program includes a one and one-half hour classroom activity, and a 4-5 hour study trip to the Rio Grande. During the 2017-2018 school-year 2,247 students participated in *Stormwater Science* activities in their classrooms, in the field or both. The classroom program was delivered to 1,517 students in 30 classrooms at 19 different schools in Rio Rancho, Albuquerque, and Belen. See ***Exhibit 5*** for the BEMP Report on the 2017-2018 school year and its *Stormwater Science* report.

For more information, see Exhibit 4, B.E.M.P.'s 2017-2018 report to the Mid Rio Grande Stormwater Quality Team.

Total estimated number of people reached by these educational activities: 173,231
Permit Reference(s): General SWP, Pet Waste, Animal Sources, Household Hazardous Waste, Illicit Discharges
Audience(s): Children, Adults

PUBLIC EDUCATION CAMPAIGNS ON PROPER DISPOSAL OF FATS, OILS & GREASE

In November and December 2016, the City of Rio Rancho and the Albuquerque Bernalillo County Water Utility Authority (ABCWUA) planned and implemented public education campaigns on how to dispose of cooking grease properly. The campaigns were timed to coincide with the holiday cooking season (Thanksgiving through Christmas). The City of Rio Rancho campaign included:

Print Ads – Two (red, green) small ads ran twice in one issue of the *Observer* the Sunday before Thanksgiving (11/19) reaching approximately 60,000 readers (with duplication).

Digital Outdoor Boards – 5 digital outdoor boards ran one week in November (11/20-11/26), alternating the red and green boards. Two of those boards ran an additional week (11/27-12/3). 7 boards ran in December the week before Christmas (12/18-12/24). A total estimated audience of 181,648 adults (18 years of age and older) with duplication was reached.

Movie Theaters – One 30-second spot played 750 times in Rio Rancho's 14-plex Premiere Theater for one week in November (12/15-12/21) and two weeks in December (12/15-12/28) reaching approximately 30,000 people with duplication.

In addition, the City of Rio Rancho published an article in its Fall 2017 newsletter. "Beware the Holiday FOG!" offered information about the damage fats, oils and grease can do to sewer mains to the newsletter's 37,000 mail recipients.

Total estimated audience reached (with duplication): 308,648

Beware the Holiday FOG!

FATS, OILS, AND GREASE (FOG) are a costly sewer problem for municipalities and the FOG problem is much worse during the holiday season. Grease and fats that are put down drains or in the toilet solidify and can create "fatbergs." They can clog customer sewer lines causing raw sewage to back up into the homes and these fatbergs can also clog the large sewer mains causing overflows of raw sewage.

A recent article in the New York Times tells about a fatberg in London. The London fatberg is 1/6 of a mile long and weighs more than 140 tons. To see a photo and read the article about the fatberger visit **https://nyti.ms/2sVZyk6**

Disposable wipes, baby diapers and feminine hygiene products make the fatbergs more solid, like a rock in some cases. **All of these products, including flushable wipes, should be put in the trash, not down the toilet.**

Keep your holidays clean from backups: dispose of FOG in the trash. **Cool It. Can It. Trash It.**

Get Your **FREE** "Cease the Grease" Spatula*

Stop by the Utilities Department Environmental Programs (City Hall Room 250)

*While supplies last

Rio Rancho Utilities :: Fall 2017 :: 3

The Albuquerque Bernalillo Water Utility Authority (a Stormwater Team supporter) expanded its annual holiday campaign on Fats, Oils & Grease in the fall of 2017 to include messages about what not to flush down the toilet (trash and flushable wipes) as well as what not to place down the sink (grease). New outdoor boards, a new television spot and a new radio spot were created, along with a bill insert stuffer mailed to the Water Authority's customers. The campaign, which ran in November, December, January and February, reached the following audiences:

Bill Insert – ran in December, January and February – estimated reach 210,000 bill inserts per month = 630,000 adults with duplication.

Radio spot – 600 30-second radio spots reaching a targeted audience of women 25-64, with a total reach of 180,200 with duplication.

Television spot – 1,418 spots reaching an estimated audience of 1,098,510 with duplication.

Outdoor – Digital messages ran on 4 outdoor boards for 2 weeks in November (around Thanksgiving) and in December (around Christmas). Total estimated reach was 1,013,420 with duplication.

Total audience reached (with duplication): 2,922,130

PRINT MATERIALS

The Stormwater Quality Team created a series of rack cards addressing specific MS4 Permit issues:

- ***Reducing Stormwater Pollution at Home*** – for residential use
- ***Keep Harmful Chemicals from Entering Storm Drains*** – for professionals dealing with hazardous chemicals
- ***Dispose of Fats, Oils & Grease (FOG) Properly*** – for residential and professional use
- ***Don't Poo-Poo the Rio!*** – a handout for new pet owners, to be distributed at animal control and animal rescue organizations
- ***There IS NO Poop Fairy!*** – a general handout about proper pet waste disposal

These materials are distributed at public events and also at appropriate venues such as animal rescue organizations, libraries, city halls, etc.

Permit Reference(s):
General SWP, Pet Waste, Animal Sources, Household Hazardous Waste, Illicit Discharges

Audience(s):
Children, Adults

SSCAFCA, a MRSQT member, produced several brochures as part of its Arroyo Safety campaign.

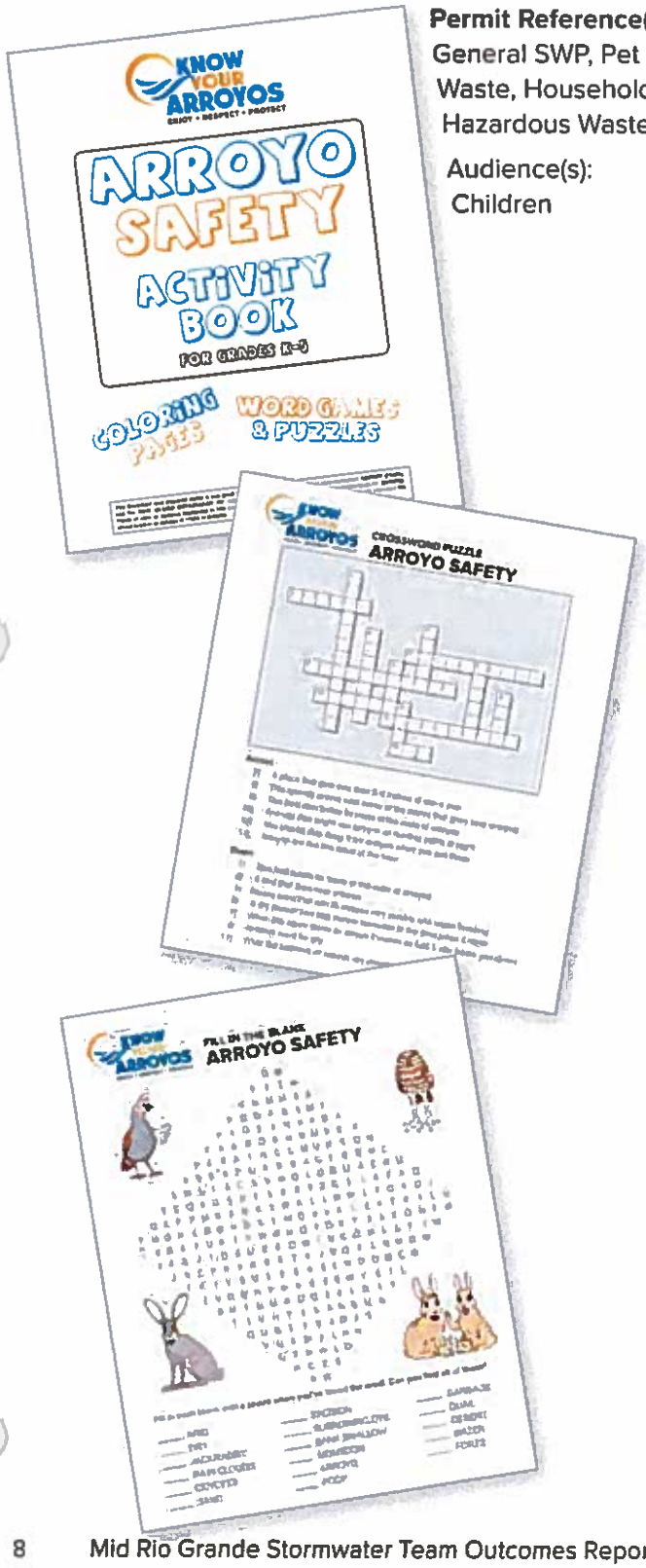
Permit Reference(s):
General SWP
Household Hazardous
Waste, Illicit Discharges

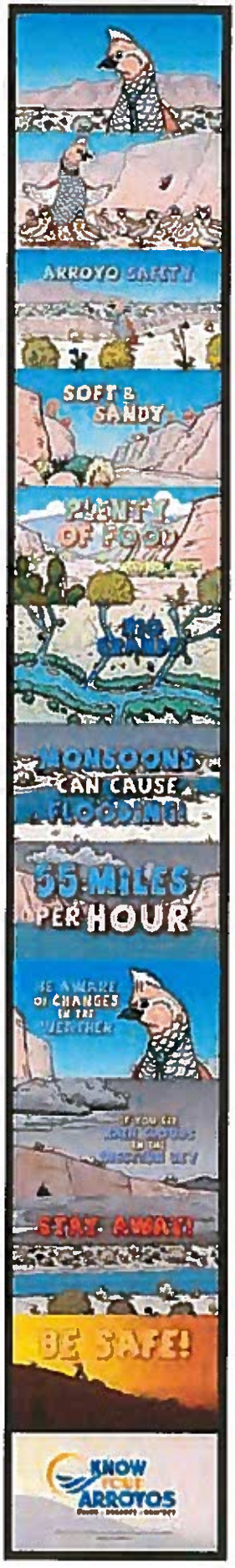
Audience(s): Adults

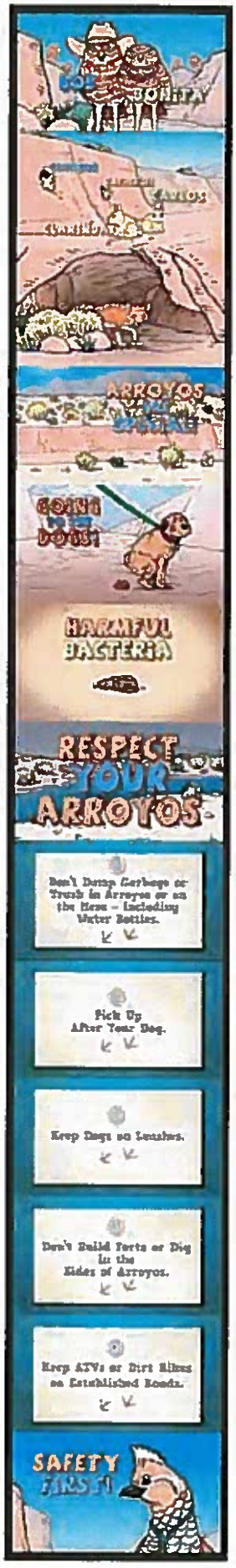
SSCAFCA also produced two animations for children. One is entitled Arroyo Safety and the other is called "Respect Your Arroyos." The videos are shown in elementary school classes and are accompanied by an activity workbook that reinforces the information addressed in the animations with coloring pages and word games.

Permit Reference(s):
General SWP, Pet Waste, Household Hazardous Waste

Audience(s):
Children







HOUSEHOLD HAZARDOUS WASTE COLLECTION

Household Hazardous Waste Diverted from Landfill

MONTH	MEMBER	POUNDS COLLECTED	POUNDS RECYCLED
2017			
July	City of Albuquerque	52,381	50,506
August	"	39,319	36,897
September	"	29,165	27,875
October	"	44,614	42,504
November	"	35,360	33,106
December	"	26,745	24,647
2018			
January	"	27,592	24,527
February	"	22,297	20,314
March	"	32,635	31,366
April	"	49,004	43,673
May	"	37,907	36,152
June	"	28,498	25,876
TOTAL	"	**425,517**	**350,136**

DONATIONS

The City Of Albuquerque donated $65,000 to organizations for additional educational and training programs:

MEMBER	AMOUNT DONATED	RECIPIENT	PURPOSE
City of Albuquerque	$45,000	The Nature Conservancy	For Education and Outreach
"	$20,000	Earth Force	For Education and Outreach

ESTIMATED TOTAL NUMBER OF PEOPLE REACHED THROUGH ALL ADVERTISING, EDUCATIONAL AND PUBLIC OUTREACH ACTIVITIES DURING 2016-2017:

Obviously, some people were reached by more than one activity, but in gross numbers an estimated **3,434,957** people were reached with a stormwater quality/stormwater pollution prevention message during the 2017-2018 fiscal year.

NAME OF PROGRAM/EVENT	EVENT DATE	TYPE OF AUDIENCE	MS4 CATEGORY	TOTAL REACHED	NOTES
2017					
Earth Day Puesta Del Sol Elementary-Enviroscape Demo	4/20/17	Elementary School students	SWP	600	
MS4 permit presentation-Rotary Club in Albuquerque	4/20/17	Adults	SWP	40	
Enviroscape Presentation-Mom's Group at Tijeras Creek Restoration Project	7/11/17	Adults	SWP	20	
Rolling River Presentation-Isleta Pueblo Environmental Fair	7/15/17	All Ages	SWP	50	
Rolling River Presentation-Water Day at Railyards Market	7/16/17	All Ages	SWP	100	
Household Hazardous Waste Collection, joint effort with ACT Environmental Svcs, COA and Bernalillo County from the 500 Balloon Fiesta Pkwy NE area	8/19/17	Adults	HHW	401	Collected, segregated, packaged, labeled, transported and disposed of 26,218 pounds of Household Hazardous Waste, and 3,600 pounds of Non-Regulated Solid Waste (an average of 74.35 pounds of waste per customer).
Enviroscape Presentation-East Mountain Celebration (with TCRP tours)	9/24/17	All Ages	SWP	50	
Rolling River Presentation-Valle de Oro 5th Birthday	9/30/17	All Ages	SWP	125	
Corrales Harvest Fest	9/30/17	All Ages	SWP	8,000	
Rolling River Presentation-RMYC at TCRP	10/2/17	All Ages	SWP	125	
Rolling River Presentation-RMYC at TCRP	10/3/17	All Ages	SWP		
Rolling River Presentation-John Adams and Jimmy Carter MS at Valle de Oro	10/6/17	Middle School students	SWP	33	
Rolling River Presentation-Atrisco Academy HS, Ernie Pyle MS at Valle de Oro	10/9/17	Middle School students	SWP	50	
Rolling River Presentation-Van Buren HS at Valle de Oro	10/11/17	High School students	SWP	39	
Rolling River Presentation-TCRP field trip tour - Carlito Springs	10/19/17	All Ages	SWP		
Rolling River Presentation-Rio Rancho Children's Water Festival	10/23/17	Fourth grade students	SWP	75	
Rio Rancho Children's Water Festival	10/23-24/2017	Elementary Students and Teachers	SWP	1,672	
Enviroscape Presentation-TCRP field trip tour - Carlito Springs	10/25/17	All Ages	SWP		
Animal Humane's Doggie Dash and Dawdle	10/31/17	All Ages	AS, PW, SWP	4,000	Animal Humane's signature event and largest fundraiser
Rolling River Presentation-RMYC at TCRP	11/13/17	All Ages	SWP		
UNM Water Student Group	11/30/17	College Students	SWP	35	

AS: Animal Sources
CON: Construction
HHW: Household Hazardous Waste
ID: Illicit Discharges
PW: Pet Waste
SSS: Septic & Sanitary Sewer Systems
SWP: General Stormwater Pollution Prevention

NAME OF PROGRAM/EVENT	EVENT DATE	TYPE OF AUDIENCE	MS4 CATEGORY	TOTAL REACHED	NOTES
RiverXChange, Georgia O'Keefe	12/14/17	Students, Adults	SWP	52	75 Shrubs Planted
2018					
RiverXChange, Vista Elem.	1/11/18	Students, Adults	SWP	66	78 Shrubs Planted
Holy Ghost	1/18/18	Students, Adults	SWP	47	42 Shrubs, 10 Cottonwoods Planted
RiverXChange, Monte Vista	1/25/18	Students, Adults	SWP	31	14 Cottonwoods Planted
RiverXChange, Bern Co/ O'Keefe	1/26/18	Students, Adults	SWP	59	29 Cottonwoods Planted
Assisted MRGCD with planting	1/27/18	Youth, Adults	SWP	184	Cottonwoods, Coyote Willows and Goodings Willows Planted
MRGCD/Fish & Wildlife at Glass Gardens	1/27/18	All Ages	SWP	184	110 Plants and caging
KOB Health and Wellness Fair at EXPO NM	1/27/18-1/28/2018	All Ages	HHW, PW, SWP	8,000	Annual event focusing on wellness; handed out giveaways,surveys
Nahalat Jewish Congregation	1/28/18	Adult		1	8 Cottonwoods Planted
Rolling River Presentation-Jefferson Middle School - Science Night	1/29/18	Middle School students	SWP		
GIOS Hubert Humphrey Elem. 4th grade	2/2/18	Students, Adults	SWP	26	20 Cottonwoods Planted
Former Peace Corps	2/3/18	Youth, Adults	SWP	83	100 Cottonwoods, 30 Shrubs Planted
RiverXChange, Colinas del Norte	2/6/18	Students, Adults	SWP	57	23 Cottonwoods Planted
RiverXChange, Martin Luther King	2/8/18	Students, Adults	SWP	56	40 Cottonwoods Planted
RiverXChange, John Baker	2/9/18	Students, Adults	SWP	53	48 Cottonwoods Planted
Roots and Shoots	2/10/18	Youth, Adults	SWP	15	25 Cottonwoods/9 Shrubs Planted
GIOS Helen Cordero School	2/16/18	Children, Adults	SWP	27	45 Twigs Planted
GIOS Explore Academy	2/19/18	Students, Adults	SWP	10	37 Cottonwoods Planted
RiverXChange, Sandia Vista	2/20/18	Students, Adults	SWP	32	30 Cottonwoods Planted
RiverXChange, NM Connections	2/21/18	Students, Adults	SWP	24	25 Cottonwoods Planted
Holy Ghost	2/22/18	Students, Adults	SWP	31	100 Cottonwoods Planted
RiverXChange, John Baker	2/23/18	Students, Adults	SWP	63	50 Cottonwoods Planted
UNM Pathways	2/24/18	Youth, Adults	SWP	69	105 Cottonwoods/30 shrubs Planted
GIOS Inez Elem. 5th grade	2/26/18	65 students/9 adults	SWP	74	45 Cottonwoods Planted
RiverXChange, Osuna	2/28/18	54 students/8 adults	SWP	62	40 Cottonwoods Planted
RiverXChange, Rio Rancho Elem	3/1/18	54 students/7 Adults	SWP	61	40 Cottonwoods Planted
Family and Friends	3/1/18	Children, Adults	SWP	10	30 Cottonwoods & Black Willows Planted
RiverXChange, Rio Rancho Elem	3/2/18	57 students/9 Adults	SWP	56	33 Cottonwoods Planted
RiverXChange, MLK	3/6/18	54 students/9 Adults	SWP	63	39 Cottonwoods & Black Willows Planted
Bosque School	3/8/18	17 Students/3 Adults	SWP	20	12 Cottonwoods & Black Willows Planted
Bosque School	3/8/18	18 Students/4 Adults	SWP	22	12 Cottonwoods & Black Willows Planted
Bosque School	3/9/18	18 Students/4 Adults	SWP	22	13 Cottonwoods & Black Willows Planted
Bosque School	3/9/18	18 Students/3 Adults	SWP	21	20 Cottonwoods & Black Willows Planted
Sandia Civitans	3/10/18	1 Youth/ 11 Adults	SWP	12	36 Cottonwoods & Black Willows Planted

AS: Animal Sources
CON: Construction
HHW: Household Hazardous Waste
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NAME OF PROGRAM/EVENT	EVENT DATE	TYPE OF AUDIENCE	MS4 CATEGORY	TOTAL REACHED	NOTES
RR Schools	3/10/18	46 Students/6 Adults	SWP	52	22 Cottonwoods & Black Willows Planted
RiverXChange, Rio Rancho Elem	3/13/18	Students, Adults	SWP	31	50 Cottonwoods Planted
RiverXChange, MLK	3/20/18	Students, Adults	SWP	58	24 Cottonwoods Planted
RiverXChange, Osuna/ Bandelier	3/21/18	Students, Adults	SWP	45	35 Cottonwoods Planted
RiverXChange, Colinas del Norte	3/22/18	Students, Adults	SWP	59	26 Cottonwoods Planted
RiverXChange, Colinas del Norte	3/23/18	Students, Adults	SWP	31	20 Cottonwoods Planted
Rolling River Presentation-Taft and Taylor MS at Valle de Oro	4/6/18	Middle School students	SWP	46	
Rolling River Presentation-UNM Sustainability Expo	4/19/18	College students	SWP	250	
Rolling River Presentation-Earth Day at Annunciation Catholic School	4/20/18	Elementary and Middle School students	SWP		
Rolling River Presentation-Cancer Services of NM Spring Retreat	4/21/18	All Ages	SWP	30	
Household Hazardous Waste Collection, joint effort with ACT Environmental Svcs, COA and Bernalillo County from the 6137 Edith Blvd. NE area at	4/21/18	Adults	HHW	415	Collected, segregated, packaged, labeled, transported and disposed of 27,017 pounds of Household Hazardous Waste, and 3,200 pounds of Non-Regulated Solid Waste (an average of 72.81 pounds of waste per customer).
Rolling River Presentation-BEMP Student Congress	4/27/18	High School students	SWP		
Rolling River Presentation-Native Fish in the Classroom Field Trip (Santa Ana Pueblo)	5/8/18	Middle School students	SWP	48	
Rolling River Presentation-Amy Biehl HS, Garfield MS at Valle de Oro	5/10/18	Middle School students	SWP	32	
Rolling River Presentation-Cielo Azul Elementary - Arroyo Clean Up Field Day	5/18/18	Elementary School students	SWP	87	
Rolling River Presentation-Explora Science Fiesta	5/19/18	Elementary and Middle School students	SWP	400	
Rolling River Presentation-Ace Leadership HS at Valle de Oro	5/22/18	High School students	SWP	34	
TOTAL PEOPLE INVOLVED IN EVENT ACTIVITIES				**26,626**	

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HHW: Household Hazardous Waste
ID: Illicit Discharges
PW: Pet Waste
SSS: Septic & Sanitary Sewer Systems
SWP: General Stormwater Pollution Prevention

Exhibit 1
Event Participation 2017-2018

NAME OF PROGRAM/EVENT	EVENT DATE	TYPE OF AUDIENCE	MS4 CATEGORY	TOTAL REACHED	NOTES
2017					
Earth Day Puesta Del Sol Elementary-Enviroscape Demo	4/20/17	Elementary School students	SWP	600	
MS4 permit presentation-Rotary Club in Albuquerque	4/20/17	Adults	SWP	40	
Enviroscape Presentation-Mom's Group at Tijeras Creek Restoration Project	7/11/17	Adults	SWP	20	
Rolling River Presentation-Isleta Pueblo Environmental Fair	7/15/17	All Ages	SWP	50	
Rolling River Presentation-Water Day at Railyards Market	7/16/17	All Ages	SWP	100	
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Rolling River Presentation-Valle de Oro 5th Birthday	9/30/17	All Ages	SWP	125	
Corrales Harvest Fest	9/30/17	All Ages	SWP,	10,000	
Rolling River Presentation-RMYC at TCRP	10/2/17	All Ages	SWP	125	
Rolling River Presentation-RMYC at TCRP	10/3/17	All Ages	SWP		
Rolling River Presentation-John Adams and Jimmy Carter MS at Valle de Oro	10/6/17	Middle School students	SWP	33	
Rolling River Presentation-Atrisco Academy HS, Ernie Pyle MS at Valle de Oro	10/9/17	Middle School students	SWP	50	
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Rolling River Presentation-TCRP field trip tour - Carlito Springs	10/19/17	All Ages	SWP		
Rolling River Presentation-Rio Rancho Children's Water Festival	10/23/17	Fourth grade students	SWP	75	
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Rolling River Presentation-RMYC at TCRP	11/13/17	All Ages	SWP		
UNM Water Student Group	11/30/17	College Students	SWP	35	

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RiverXChange, Martin Luther King	2/8/18	Students, Adults	SWP	56	40 Cottonwood Planted
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Roots and Shoots	2/10/18	Youth, Adults	SWP	15	25 Cottonwood/9 Shrubs Planted
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RiverXChange, Rio Rancho Elem	3/1/18	54 students/7 Adults	SWP	61	40 Cottonwood Planted
Family and Friends	3/1/18	Children, Adults	SWP	10	30 Cottonwood & Black Willow Planted
RiverXChange, Rio Rancho Elem	3/2/18	57 students/9 Adults	SWP	56	33 Cottonwood Planted
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Bosque School	3/8/18	17 Students/3 Adults	SWP	20	12 Cottonwood & Black Willow Planted
Bosque School	3/8/18	18 Students/4 Adults	SWP	22	12 Cottonwood & Black Willow Planted
Bosque School	3/9/18	18 Students/4 Adults	SWP	22	13 Cottonwood & Black Willow Planted
Bosque School	3/9/18	18 Students/3 Adults	SWP	21	20 Cottonwood & Black Willow Planted
Sandia Civitans	3/10/18	1 Youth/ 11 Adults	SWP	12	36 Cottonwood & Black Willow Planted
RR Schools	3/10/18	46 Students/6 Adults	SWP	52	22 Cottonwood & Black Willow Planted

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RiverXChange, MLK	3/20/18	Students, Adults	SWP	58	24 Cottonwood Planted
RiverXChange, Osuna/ Bandelier	3/21/18	Students, Adults	SWP	45	35 Cottonwood Planted
RiverXChange, Colinas del Norte	3/22/18	Students, Adults	SWP	59	26 Cottonwood Planted
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Rolling River Presentation-Taft and Taylor MS at Valle de Oro	4/6/18	Middle School students	SWP	46	
Rolling River Presentation-UNM Sustainability Expo	4/19/18	College students	SWP	250	
Rolling River Presentation-Earth Day at Annunciation Catholic School	4/20/18	Elementary and Middle School students	SWP		
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Household Hazardous Waste Collection, joint effort with ACT Environmental Svcs, COA and Bernalillo County from the 6137 Edith Blvd. NE area at	4/21/18	Adults	HHW	415	Collected, segregated, packaged, labeled, transported and disposed of 27,017 pounds of Household Hazardous Waste, and 3,200 pounds of Non-Regulated Solid Waste (an average of 72.81 pounds of waste per customer).
Rolling River Presentation-BEMP Student Congress	4/27/18	High School students	SWP		
Rolling River Presentation-Native Fish in the Classroom Field Trip (Santa Ana Pueblo)	5/8/18	Middle School students	SWP	48	
Rolling River Presentation-Amy Biehl HS, Garfield MS at Valle de Oro	5/10/18	Middle School students	SWP	32	
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Rolling River Presentation-Explora Science Fiesta	5/19/18	Elementary and Middle School students	SWP	400	
Rolling River Presentation-Ace Leadership HS at Valle de Oro	5/22/18	High School students	SWP	34	

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Exhibit 2
ARROYO CLASSROOM 2017-2018

Arroyo Classroom Program

The Arroyo Classroom program utilizes our natural arroyos as outdoor classrooms and brings local animals into the classroom to motivate 3rd graders to respect the arroyos as important wildlife habitat. Orilla Consulting, LLC developed the program in 2012 and initially implemented the program for 7 classes at Maggie Cordova Elementary in Rio Rancho. In 2013, the program grew to serve 20 classes. On July 1st, 2015, Orilla Consulting, LLC transferred the program to Ciudad Soil and Water Conservation District as part of the larger education and outreach efforts we are involved in throughout Bernalillo and Sandoval Counties. In the 2017-2018 school year, we served 33 classes within Rio Rancho Public Schools, reaching approximately 33 teachers and 770 students.

Participating Schools:

- Cielo Azul Elementary (6 classes) *
- Enchanted Hills Elementary (7)
- Maggie Cordova Elementary (6) *
- Martin Luther King, Jr. Elementary (4) *
- Puesta del Sol (6) *
- Sandia Vista Elementary (4)

* Title 1 school

Deliverables to date:
All complete

- Stormwater Presentations: 33:33
- Arroyo Walk: 33:33
- Bat Presentations: 33:33
- Owl Presentations: 33:33

The program consists of a four-part series of lessons, based on grade-level science standards and addressing areas of interest to SSCAFCA, such as bats, burrowing owls, ATV use, pet waste, and arroyo safety. Educator Melissa McLamb delivered two of the lessons – an introductory lesson about watersheds, and a walking field trip to nearby arroyo habitat. Justin Stevenson of RD Wildlife Management, LLC delivered a lesson using live bats. Tavo Cruz of Envirological Services, Inc. delivered presentations with a live Burrowing Owl.

The watershed lesson expounds on the water cycle, already integral in 3rd grade curriculum. This year, we utilized the Enviroscape model to: introduce the concept of a watershed to students, demonstrate stormwater, emphasize arroyo safety and the importance of keeping our arroyos clean.

The arroyo walk is a highlight for students and teachers, as the majority of participating classes only receive one other field trip during the school year, and students always come away learning something new and interesting about the uniqueness of arroyo habitat. This lesson is about the unique adaptations

of arroyo animals and plants, incorporates a walk out to a nearby arroyo (when available) and extensive discussion about arroyo safety *(see lesson plan in Appendix A.)* Melissa first talked to students about the difference between concrete-lined channels and sandy-bottomed arroyos, and emphasized that it is never safe to go into concrete-lined channels, while sandy-bottomed arroyos can be visited when there are no clouds in the sky. Students searched for evidence of animals living in the arroyo banks, learned about how lizards, and other cold-blooded animals, are adapted to the desert environment by moving about to regulate their temperature, and looked for certain adaptations of desert plants to minimize water loss in the desert.

In the lesson about bats, Justin discussed common myths about bats while pointing out how these myths can pose issues for bat populations as he addressed each one. He taught students about species common in their area, including what habitat they prefer, what they eat, the challenges they face, and what to do if one sees an injured bat. He talked about how important bats are in keeping insect populations under control, shared ways to encourage and protect bats and emphasized that kids should not be frightened of them, but also should never touch a bat if they find one. Students were able to view two different species of live microbats.

In the owl presentation, Octavio talked with students about what time of year burrowing owls are in our arroyos, what habitat they need, and what we can do to support and protect them. Tavo emphasized the impact of riding ATVs up the sides of arroyos and encouraged ways to care for burrowing owl habitat. He taught students that burrowing owls are protected by federal law, and that 3rd graders could be ambassadors and protectors for the owls. Each student was able to observe the burrowing owl up close, one at a time. We worked in coordination with Wildlife Rescue to bring in the live burrowing owl for each presentation.

Evaluation:

Teachers continue to thank us for offering this program and comment that it is helpful to them in terms of meeting science standards. They mention an increase in student engagement during all of the experiential lessons and find that students are curious and continue to discuss content post presentations. All 33 participating classes, participated in previous years and each school expressed interest in returning next year.

Our two main staff for the program, both resigned from the District in September. This abrupt change resulted in Education Coordinator, Melissa McLamb, taking the lead on the program and spread presentations throughout the entire school year, rather than in the 3-5 month time frame presentations have traditionally been scheduled within. Surveys which have been used in previous years were distributed to assess learning after the owl and bat presentations.

For our second year, we have collaborated with Cielo Azul Elementary for an arroyo clean up event with all of their 3rd grade classes. This year, City of Rio Rancho donated gloves and trash bags as well as provided a dumpster on site at Havasu Park, as part of the Great American CleanUp countrywide initiative. Collectively, students, teachers and other adults picked up 1180 pounds of trash at this event!

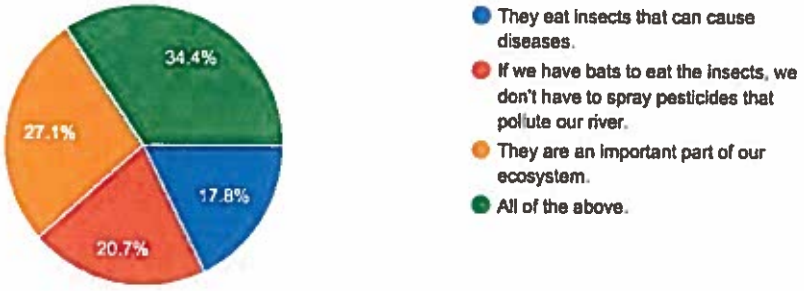
Post-Survey Metrics:

Bat survey

Total responses: 439

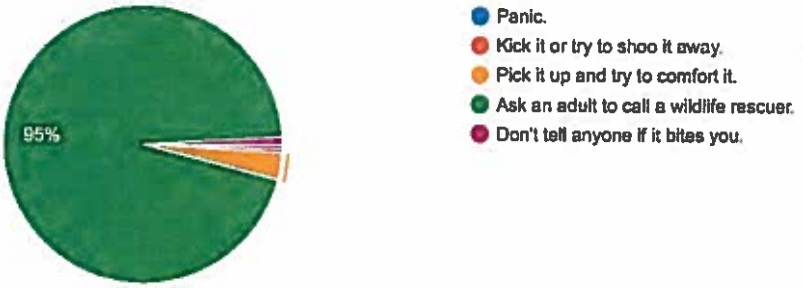
Why do we want to protect bats?

439 responses



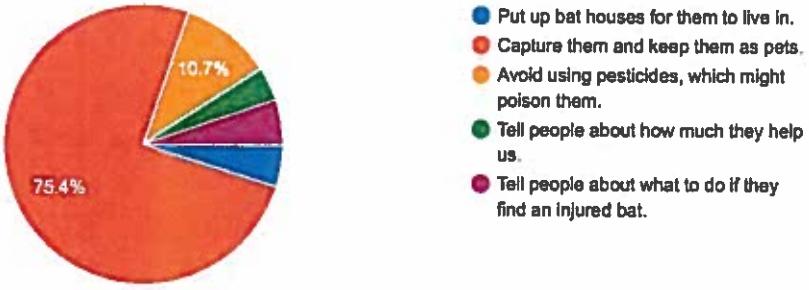
If you find an injured bat, what should you do?

439 responses



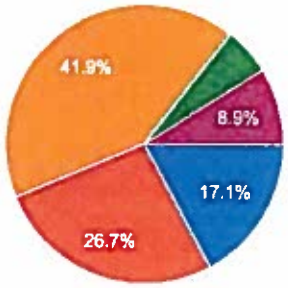
Which is NOT a good way to help bats?

439 responses



Which of the following is TRUE about the bats that live around Rio Rancho and Corrales?

439 responses



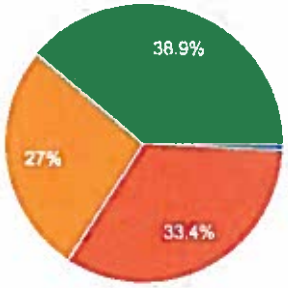
- They are blind.
- Most of them have rabies.
- They consume at least half their body weight in insects each night.
- They suck blood.
- They are attracted to people's hair.

Owl survey

Total responses: 437

Burrowing owls eat

437 responses



- Food scraps from our garbage
- Mostly mice
- Mostly small insects like mosquitoes
- Mostly large insects like beetles and grasshoppers

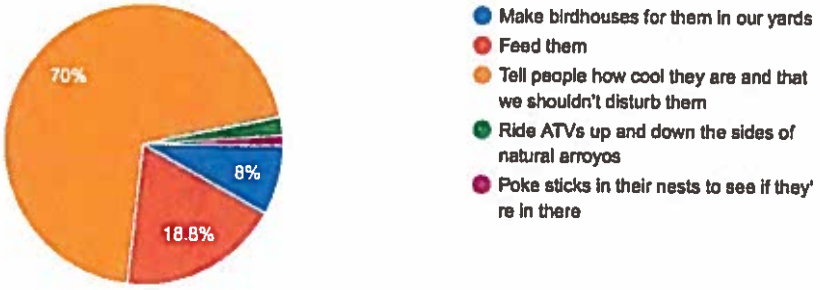
It's important to protect burrowing owls in our arroyos because:

437 responses

- The Federal Migratory Bird Treaty Act says it is illegal to harm or disturb burrowing owls or other migratory birds.
- They are an important part of our ecosystem
- Healthy natural arroyos are ideal habitat for owls, so if we see them we know we are taking good care of our...
- All of the above

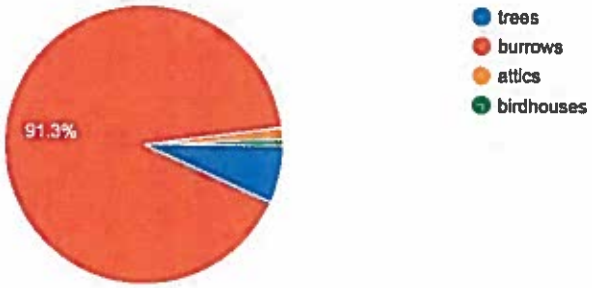
What can we do to help burrowing owls?

437 responses



Burrowing owls live in:

437 responses



Survey Summary: Due to the time constraints and loss of programmatic knowledge created by the change in personnel and lack of training, many surveys were taken months after the bat and/or owl presentation. Surveys were shared with biologists for input. Our educators are noticing that questions with an "all of the above" answers seem difficult to determine for this age group. These surveys will be modified to become one survey in future years of programming, intended to assess comprehensive learning outcomes and distributed twice throughout the program -once before any presentations and once after all presentations are complete. Surveys will be revised to assess main conceptual objectives of each presentation. Surveys have been shared with collaborating biologists to improve questions and learning outcomes in the future.

Appendix A contains lesson plans; Appendix B contains supplemental materials; Appendix C contains photos and in-kind figures from the program.

Appendix A: Lesson Plans

Activity Guide for 3rd Grade – Animal and Plant Adaptations

1. What are we trying to teach the students in this activity?
Arroyos are cool places where animals live, animals and plants are adapted to live in the desert.

2. How can we tie this activity to our teaching goals:

Our Goals	Where we can relate our goals to this activity
Animals live in arroyos	Look for evidence of animals.
We should visit arroyos carefully	Talk about when it is safe.
Picking up dog poop keeps germs out of our river	We'll probably see poop, talk about how it can make animals sick.

Supplies:

- Thermometers
- Clipboards
- Poster of leaf adaptations
- Wax paper
- Paper towels
- Tape

3. How can we tie this activity to standards?

- Measure energy (temperature change)
- Posing a question, using numerical data, various methods to display results
- Animals and plants have adaptations that improve chances of survival
- Classifying animals and plants
- Living things cause changes to their environment, some detrimental, some beneficial

5. How should this activity be organized?

I. Pre-activity (10 minutes)

- Do you ever visit/play in arroyos? What do you do?
- What are arroyos for? Managing stormwater to keep our town from flooding when we get a heavy rain. **Show first flush video.**
- Talk about arroyo safety – don't go into arroyos when you see clouds in the sky.
- Because our arroyos are natural, with sandy sides and bottom, they are safer.
- In Albuquerque, the arroyos have concrete sides and water travels so fast, it is really dangerous to ever go in arroyos. Some arroyos come from the canyon where it might be raining but you can't see.
- Our arroyos are home to all kinds of animals and plants, so they are a wonderful place to enjoy nature. What kinds of animals do you think might live in the arroyo?
- Walk out to arroyo

II. Lizard activity (15 min)

- 5min Look for evidence of animals. What kind of evidence? Scat, tracks, holes.
- What kind of animals live in holes (besides snakes)?
- What do you think makes it difficult to live out here? Heat, sunburn, not much water, cold at night. Animals and plants have special **adaptations** (special things about their bodies) that make it easier for them to live in this habitat.
- How do they get water? From plants, from condensation under rocks.
- How could they avoid heat? Stay in burrows or shade during the day, active at night.
- Some animals love the heat, though! Lizards are cold-blooded, which doesn't mean they are actually cold. It means their body temperature is determined by the environment. They need to absorb heat from their surroundings to function.
- Each student take a thermometer. This is a lizard, and it needs to maintain its body temperature at a certain level: fence lizard 35C (95F), whiptail 38.6C (101F). How can it keep from getting too hot? How can it keep from getting too cold? Lizards regulate their body temperature through behavior.
- Plants do kind of the same thing – hold one palm out flat, one sideways. Which feels hotter? Prickly pear cactus pads grow sideways instead of flat to keep themselves cool!

IV. Plant activity (15 min)

- What do plants need in order to survive? Water, sunlight, air, soil
- What makes it difficult for plants in the desert? It's so hot and there's so little rain.
- How do plants get water? **Show evapotranspiration diagram.** It's kind of like when we're hot, we sweat. But if we lose too much water from sweating we get dehydrated.
- How do they keep cool? Remember prickly pear? **Show pictures of hedgehog and prickly pear cacti.** Desert plants can shade themselves! Hedgehog cactus has lots of spines that shade the surface and also blocks the wind.
- The leaves of many desert plants are **adapted** so that they don't lose too much water.
- Show leaf adaptations poster (fuzzy, small, curled, waxy, green stems but no leaves)

If weather is ok:

- Out in arroyo, we'll do an investigation.
- How many of the plants we see will have these adaptations? Hypothesize.
- To be fair, we can't just pick the plants we like. Standing in one spot, collect the first 6 *different* leaves you see.
- Draw each one, and describe what adaptation it has.
- How many of your 6 leaves have one of the adaptations listed?
- Why don't all have it? Some plants avoid the heat by just growing and producing seed really fast before the weather gets hot, and then they just die off and leave their seeds to grow next year!
- Search for seeds.

If windy, inside activity:

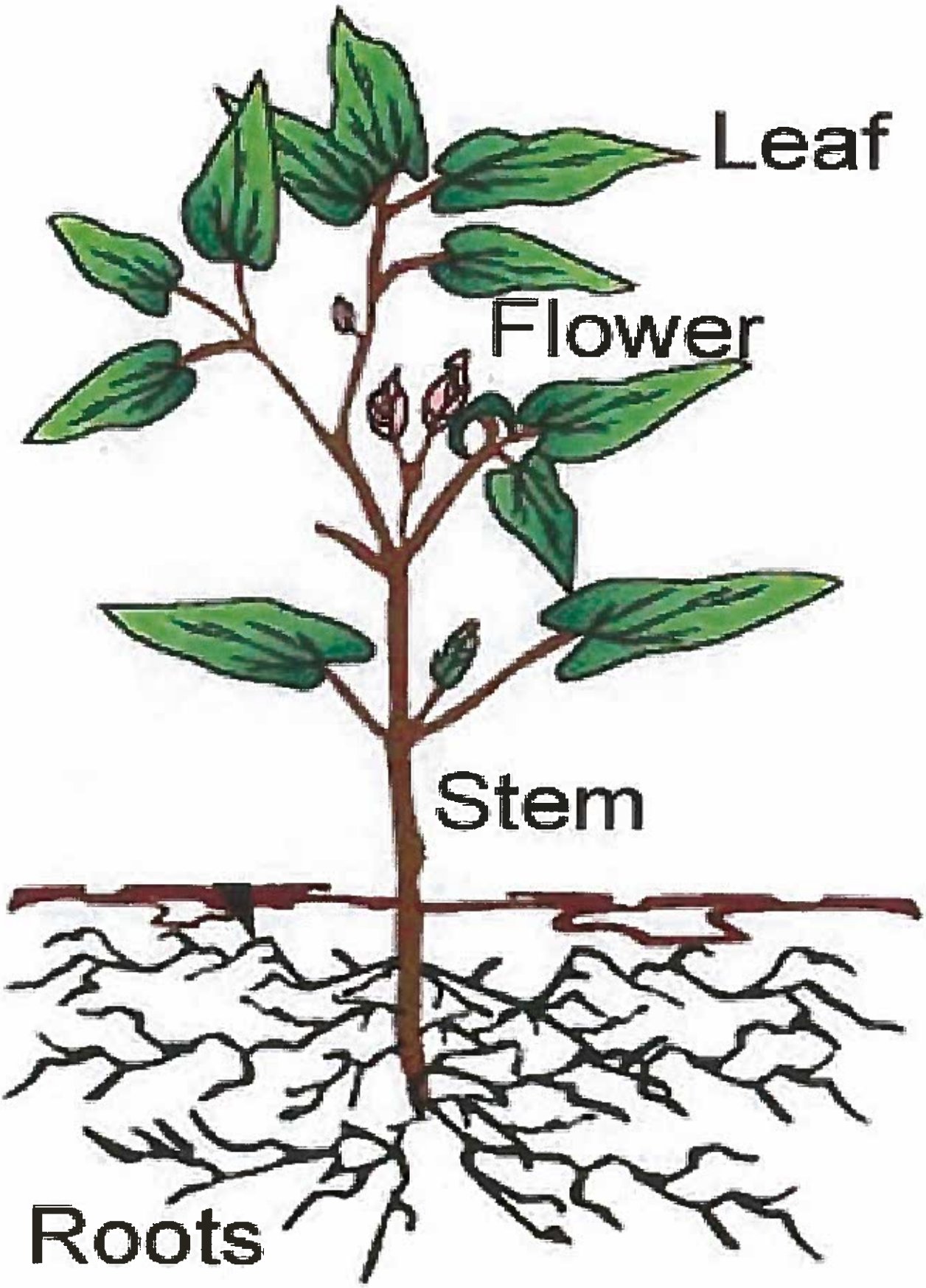
- Let's investigate one way they keep water. **Dab water on board, cover one spot with paper towel, one spot with wax paper.** Which do you think will evaporate faster?
- **Show prickly pear picture.** Make model of prickly pear pad: paper towels with wax paper taped around the outside. **Show cut prickly pear pad.**
- Maybe do experiment: soak wax-covered and non wax-covered leaves in water and time how long they take to dry.

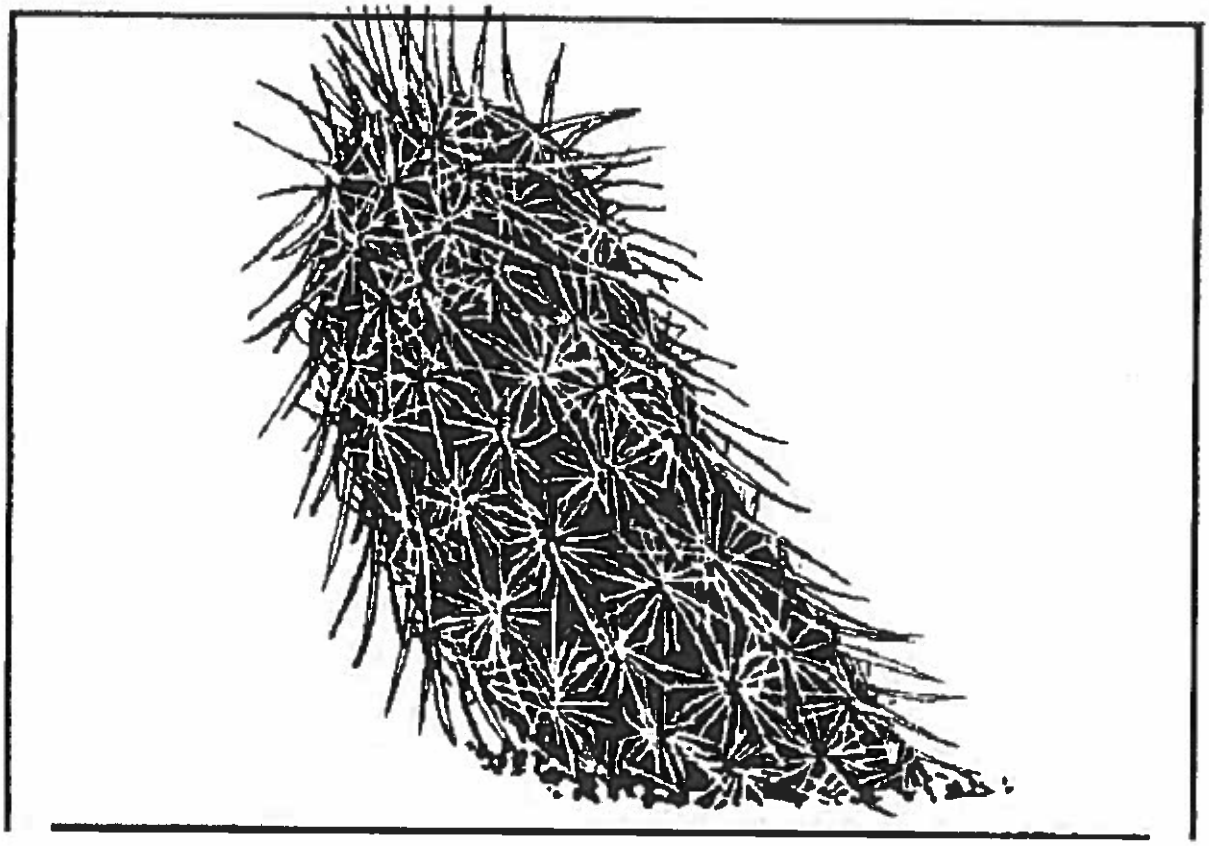
V. Conclusion (10 min)

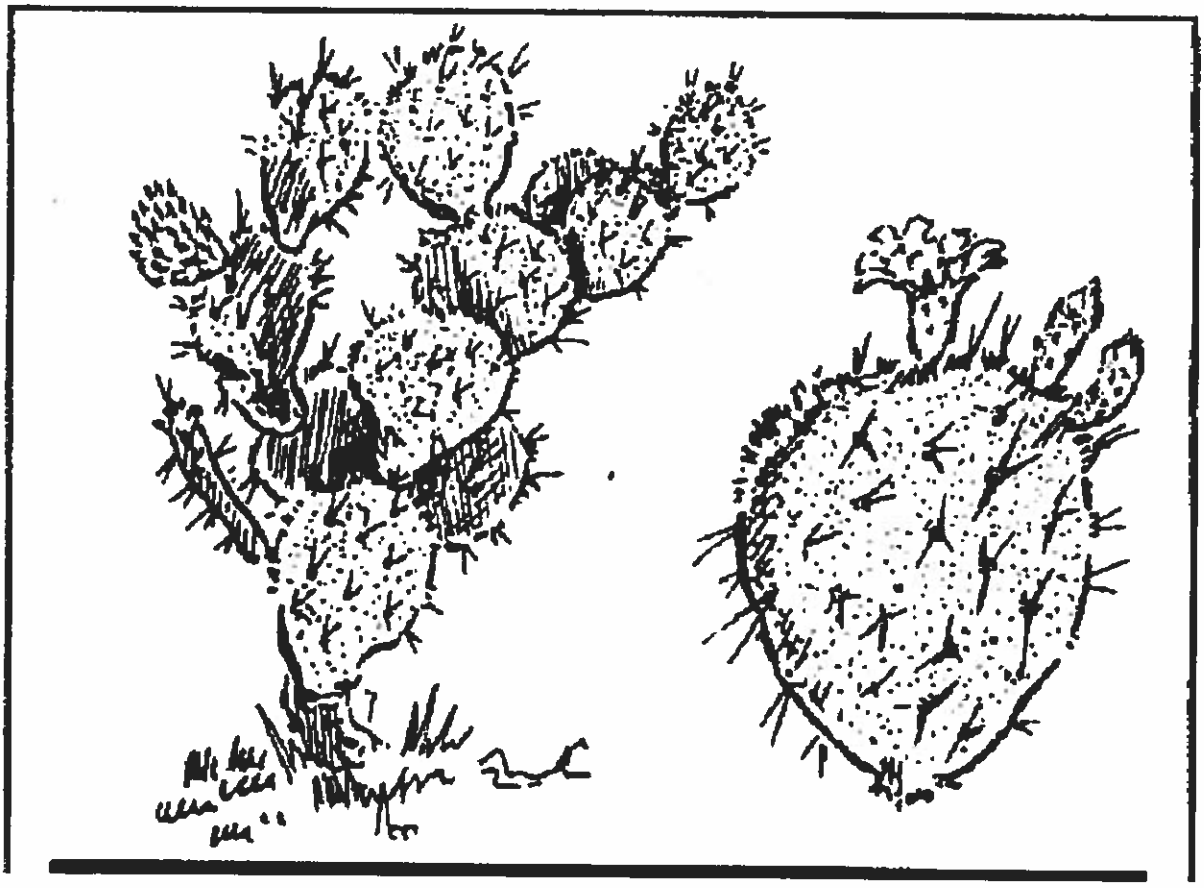
- Arroyos are for flood control, and we shouldn't play in them when clouds are in the sky.
- But they are cool places where animals and plants live, and we can visit when it's clear weather.
- Animals and plants are adapted to live in the desert climate.
- What we do in arroyos affects the plants, and animals' habitats. Should we ride ATVs up the sides? That's something humans do to change our environment for the worse.
- Picking up dog poop is important because it can make animals sick. Where does the water go when it flows down the arroyo? The Rio Grande! Keeping dog poop out of the river is one way humans can change our environment for the better.
- Walk back to classroom

Leaf Adaptations

1. Fuzzy leaves or lots of spines
2. Small leaves
3. Curled leaves
4. Waxy leaves
5. Green stems but no leaves!


Leaf
Flower
Stem
Roots





Enviroscape Activity Guide for Arroyo Classroom

1. What are we trying to teach the students in this activity?
What is a watershed? How does the water cycle work? What are different forms of pollution and how does it impact our river? Arroyos lead to the river and carries different types of pollution with it.

NM State Science Standards:

3rd Grade
Water cycles through the atmosphere, plants, soil, and bodies of water in various forms.
Describe pollution and identify different types (can be naturally occurring or human made materials). Pollutants can get into our water and harm living things.
Some animals can survive better in certain environments, some will not survive at all.
Describe how roots take up water and soil nutrients, and leaves make food from sunlight.

2. How can we tie this activity to our teaching goals:

Our Goals	Where we can relate our goals to this activity
How does the water cycle work?	Describe the processes of the water cycle: evaporation, condensation, precipitation, collection, run-off and infiltration.
What is a watershed?	A watershed is all the land that drains into a river or other body of water, from mountain forests to riparian zone.
What makes water dirty?	Pollution comes from all over the watershed, and erosion is one form of pollution.
Why are arroyos important?	Arroyos provide important drainage in a storm event and provide unique and critical habitat for wildlife and plants.
How does vegetation help our river?	Forests, wetlands and healthy arroyos help keep the river clean and prevent flash floods. Plants in these areas slow the runoff of water into the river, reducing erosion and flooding. They can also remove nasty chemicals from the water by taking them up through their roots.

3. What is effective in this activity? Kids enjoy playing with the model and discussing what they are observing.

4. What makes this activity difficult to teach? Kids want to touch everything on the model and play while you are talking.

Activity Materials and Preparation

- Enviroscape model + toy houses, cars, buildings
- chocolate sprinkles to represent dog poop

- bits of paper and/or rainbow sprinkles to represent trash
- black frosting to represent oil
- sugar sprinkles or food coloring (red or green) to represent pesticides, fertilizer and/or chemicals
- Set up model
- Draw sketch of the water cycle

I. Intro – 5-10 minutes

1. What is the water cycle and how does it work? Reference the water cycle sketch and/or sing the "Water Cycle" song.
2. What is a model and what is its purpose?
3. Introduce Enviroscape as a model of a watershed. What is a watershed?
   -Describe a watershed using the metaphor of a tree (branches as arroyos, trunk as river, leaves as land, roots as ocean)
   -Introduce students to different areas on the watershed.

II. Activity – 20-30 minutes

1. What is pollution? What kind of trash/pollution have you seen in your neighborhood, local arroyo or along the street? As students are identifying different forms of pollution, place the imitation pieces on the model, as you bring their attention to different areas on the model such as residential, roadways, parking lots, farm, etc.
2. Discuss how erosion can be a form of pollution, even though dirt is natural. ***Ask students - can there be too much dirt in the river?***
3. Describe how humans have made changes to the river over the past century, such as straightening the channel, removing wetlands, building houses near it, and creating lots of impermeable surfaces such as parking lots. Note that this means faster flow and more erosion, which can make it hard for native fish to survive. Silvery minnow needs slower flow and more shallow side channels to lay its eggs, sediment can clog up fishes' gills.
4. Talk about how forests play a role in the watershed and can affect the health of a river. **Use watering cans to sprinkle water over the forest and see how it sinks in, not causing much erosion.** ***Ask students why they think this happens.*** Discuss how forests slow the runoff when it rains, because the roots hold the soil in place and take up some of the water.
5. **Farm (sediment, run-off, fertilizer, livestock waste, turbidity as a sand storm, impact on fish)**
6. **Factory (chemicals, waste, management, proximity to arroyo)**
7. **Houses - (dog poop, grease, oil, trash)**
8. **Roads (oil, trash)**
9. Observe the water's path to the river (through arroyos), and erosion below rooflines and at parking lot edges. ***Ask students what they think might be in that runoff. How would you like to drink that if you were a fish?***
10. Notice what happens to water that falls on a hard surface like a street compared to when it falls on a grassy area. Discuss the importance of vegetation. Examine the wetland and discuss how riparian vegetation slows runoff into the river, preventing flooding. **Use the watering cans to sprinkle water directly above the wetland and observe how the wetland traps some of the sediment.**
11. **On the man-made side, use berms to retain hillsides and riverbanks, add buffer strips to parking lots, and construct another wetland.** Discuss with students ways in which they can

protect and support the health of arroyos and the river.

III. Discussion – 10 minutes

- Re-emphasize the concept of a watershed.
- What can we do? Why is it important? Clean up after your dog, utilize trash cans and dispose of waste properly.
- Re-emphasize how arroyos help carry stormwater away from the places where we live, work and play and that they are connected to the river.
- Talk about the importance of keeping our arroyos clean and how to be safe when playing in and around them.

Appendix B: Supplemental Materials

-SSCAFCA Activity Book and Educational Videos:

KNOW YOUR ARROYOS

ENJOY • RESPECT • PROTECT

-SSCAFCA handouts:

Did you know?

SSCAFCA protects our community from flooding and erosion caused by big rain storms, and works to keep stormwater clean. Stormwater flows down arroyos into the Rio Grande.

Bugs like to live in stagnant water that collects in ponds and low places in the arroyos. Insects like mosquitoes can carry diseases that make us sick.

Brought to you by:

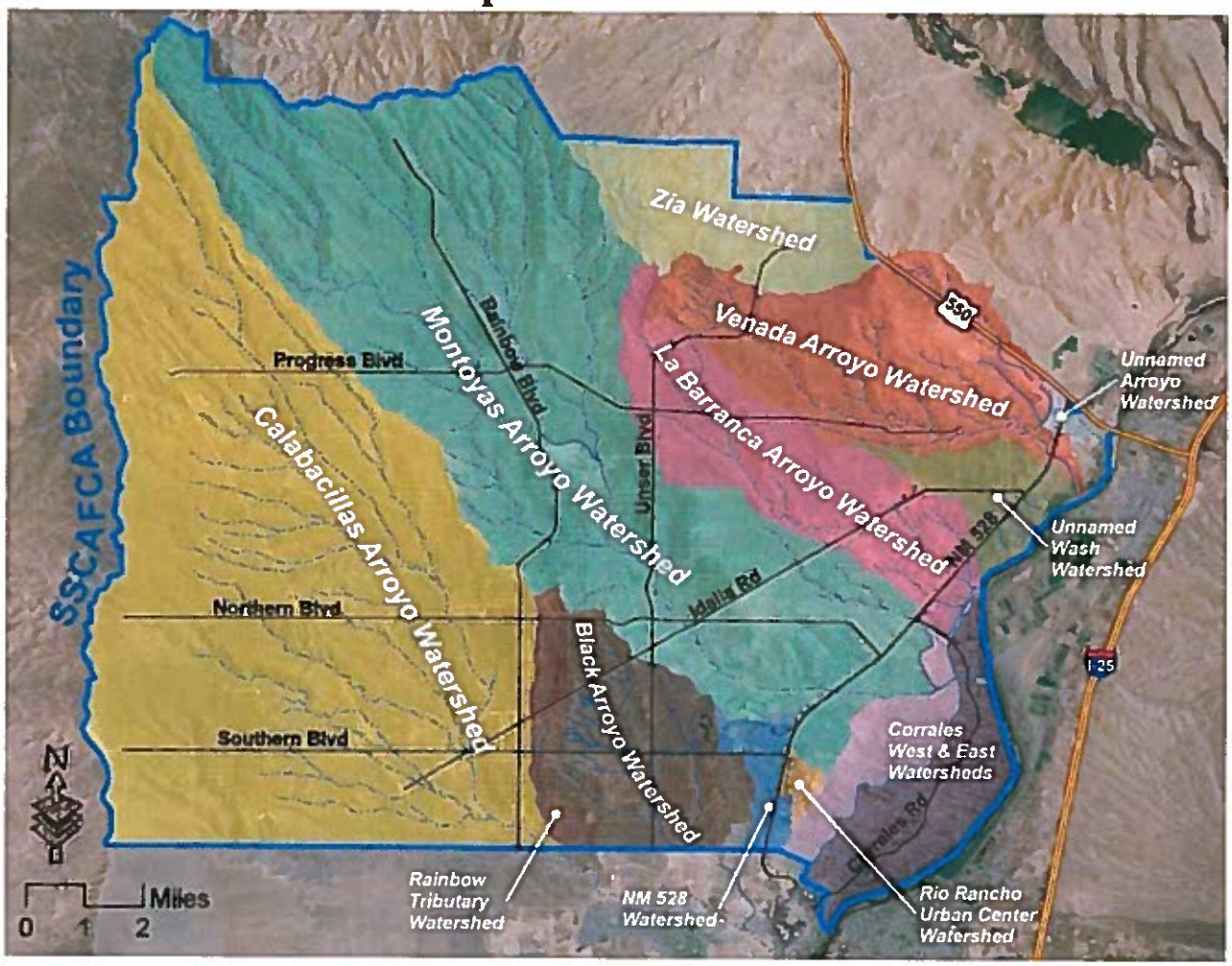
SSCAFCA

Almost all U.S. bats feed exclusively on bugs, and 1 bat can eat between 600 and 1,000 mosquitoes and other insect pests in just one hour. One bat can eat its own weight in insects in a single night!

SSCAFCA provides bat houses to encourage bats to make their homes near our arroyos, and especially near detention ponds where stormwater runoff is captured and allowed to slowly drain.

The more we help bats, the more pests they eat, so we don't have to spray pesticide that could wash down to the Rio Grande and pollute it.

SSCAFCA watershed map:



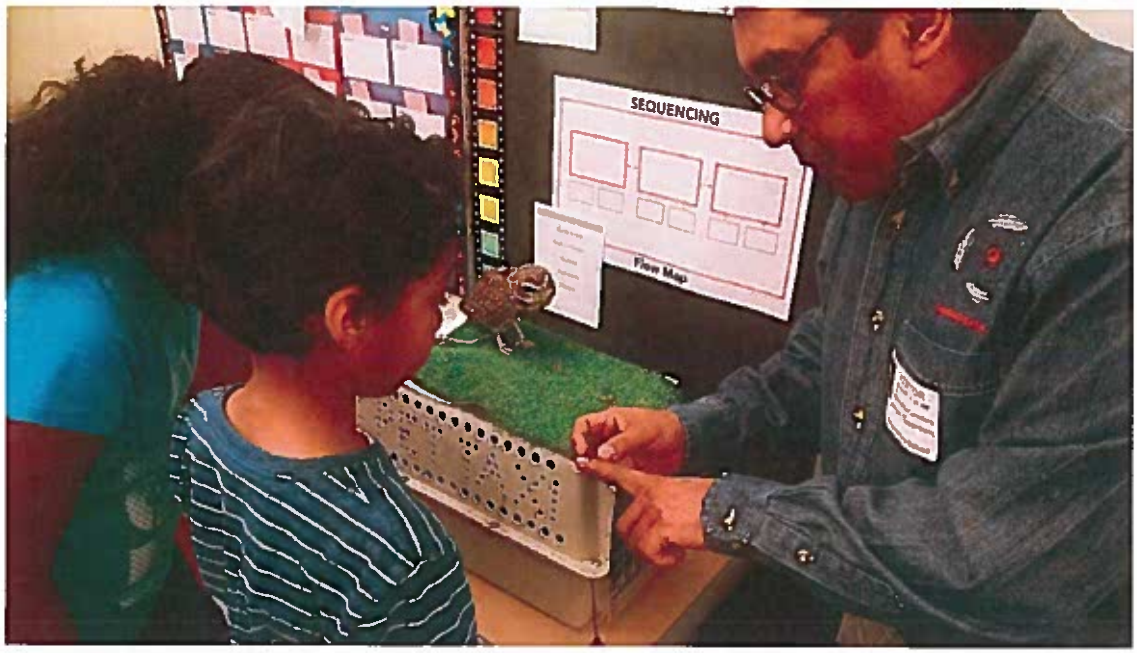
Appendix C: Program Photos

Justin Stevenson showing two microbats in rehabilitation to a class at Maggie Cordova Elementary.

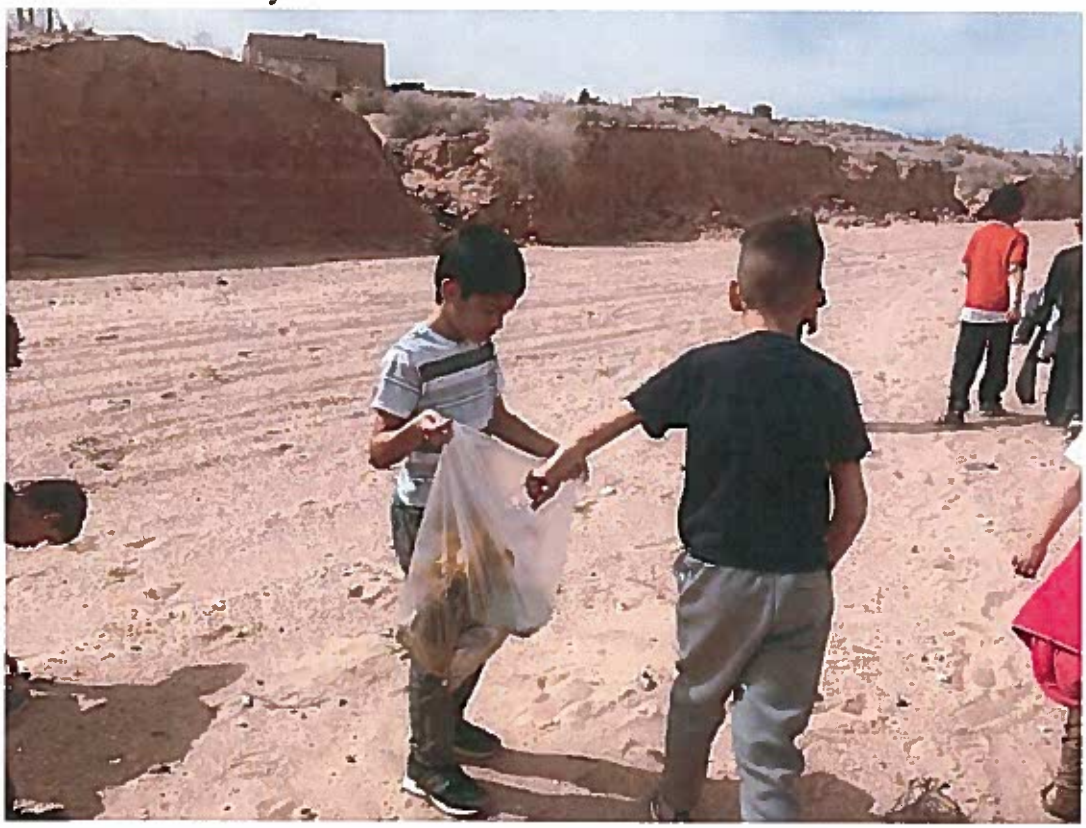
Justin discussing the importance of bats and sharing video footage of their resting behavior.

Teacher at Cielo Azul Elementary disposing of trash picked up in the arroyo on the Arroyo Clean Up Day, May 17th.

Wildlife Rescue, Inc.'s burrowing owl, unable to survive in the wild, now shared for educational purposes.



Octavio Cruz elaborating on unique biological adaptations and answering questions for students at Cielo Azul Elementary.



Students at Enchanted Hills elementary pick up trash on our way back to school from the arroyo walk.

Cielo Azul Arroyo Clean Up Event - May 17, 2018	
City of Rio Rancho - Utilities Dept - coloring books, $2/ea, 150 books	$300.00
City of Rio Rancho - Parks, Rec and Community Services Dept (PRCSD) - Waste Management 40 yd dumpster, including delivery	$275.50
City of RR PRCSD- trash bags, 150, .19/ea	$28.50
City of RR PRCSD- reusable gloves, $.81/pair, 150 pairs	$121.50
88 students, 2 hours of service at $24.14/hr	$4,245.12
13 adults, 2 hours of service at $24.14/hr	$627.64
TOTAL IN-KIND	$5,598.26

Exhibit 3
RiverXchange 2017-2018

RIVERXchange™

Innovative Outreach Program for Upper Elementary Students Integrating Water Resources Topics with Language Arts & Science

2018 Report

Presented by
Ciudad Soil & Water Conservation District

June 2018

EXECUTIVE SUMMARY

This year, funding enabled 39 NM classes (1,188 students and 42 teachers) to participate. The majority of participating schools were Title I schools. Each NM class was partnered with another NM class and one or more classes outside the state for a total of over 1,412 participants. All program costs and coordination are provided free of charge to NM teachers. Training, technical support, and curriculum materials are provided free of charge to partner teachers. The program required $51,639.06 in cash and generated total match valued at $93,152.09 in the form of in-kind contributions including workshop space, classroom resources, presenters' time in the classroom, field trip docents, donated trees and shrubs as well as the teachers' and students' time.

Ciudad SWCD faced some unexpected challenges during the 2017-2018 school year. The District Coordinator, a main support for our educational programs, resigned unexpectedly in September, leaving a major gap in personnel at the start of school year. We hired on a contractor, Jessica Garduño, in December to assist with programming as needed. This change impacted the RiverXchange process flow as training for Jessica had to occur mid-school year, but we successfully completed the program at participating schools with only three exceptions (see below).

Teachers also continued to face challenges this year with mandatory computer based testing such as the PARCC test, which made it more difficult to access computer labs. We're noticing a pattern of teachers being interested in the blogging concept but having difficulty incorporating it as part of their curriculum throughout the school year.

Despite these challenges, we continue to receive feedback from teachers that they love the presentations and students learn a lot from them. Teachers enjoyed the extension activities and critical question prompts delivered after each one, commenting that it helped them further explore content with their classes. We continued to encourage group participation this school year by setting up reflection groups in each participating class, and distributing critical thinking prompts and follow-up activities to each presentation.

Most of our presenters have worked with us for years and know the program thoroughly, strengthening the correlation between their educational objectives and the goals of the RiverXchange program. We had difficulty scheduling individual presentations for our single participating online classroom and referred them to video presentations as they were available.

Program presentations were completed as follows:

Stormwater: 38/38
Drinking Water: 37/38
Wastewater: 38/38
Agriculture: 37/38
Field Trips: 37/38

We were unable to reschedule one field trip, which was cancelled by a teacher, due to mandatory

testing and it being the end of the school year.

This school year, we helped fund an additional field trip for three participating classes in collaboration with US Fish & Wildlife Service. 3 RiverXchange classes also participated in USFWS Native Fish in the Classroom program and RiverXchange was able to fund the buses for their fish release. On these dates, students released approximately 130 native fish to the Middle Rio Grande, including flathead chub, longnose dace, and red shiners.

CONTENTS

PROGRAM DESCRIPTION

Mission

The mission of RiverXchange is to deepen students' and teachers' understanding and appreciation for their local river ecosystem, motivate participants to protect local water resources by conserving water and keeping their source water clean, and to provide a high quality, high impact outreach opportunity for funders and in-kind contributors.

The Big Water Questions

The optional curriculum frames program outcomes as "guiding questions," known as *Big Water Questions*. A long term goal of RiverXchange is that students understand these questions and can formulate logical, fact-based answers by the time they finish elementary school. We believe that students who can synthesize water facts to understand larger water issues will have the proper critical thinking skills and foundation for further discussion in middle and high school so that they will become informed citizens and voters on water issues.

Understanding a Watershed

- Is every place in the world part of a watershed?
- Where does your community's stormwater go?
- How can surface water become polluted?
- How does the water cycle relate to weather?
- How are groundwater and surface water connected?
- How can groundwater become polluted?
- What actions can all of us take to keep water clean?

Water in Our Society

- In what ways does our society use water?
- Where does your community's drinking water come from?
- Does everyone have the right to use as much water as they want?
- Where does your community's wastewater go?
- What actions can all of us take to conserve water?

River Ecosystem

- How does water affect living things in an ecosystem?
- What role do forests play in a watershed?
- What role do wetlands play in a watershed?
- What are some of the ways scientists can determine the health of a river, lake, bay or ocean?
- What actions can all of us take to improve the health of our ecosystem?

Background

As producers of children's water festivals and other grade K12 water resources outreach in NM since 2007, we observed early on that NM elementary teachers rarely incorporated water concepts in the classroom beyond what is required by the state (e.g., water cycle), and that most elementary teachers considered "water" strictly as a science topic. While teachers personally acknowledged the importance of conserving water and keeping source water clean, we continued to find that upper elementary students had little or no understanding of major water resources topics unless the teacher specifically integrates a wide range of water topics into the curriculum. For this reason, as well as our successful festival work with upper elementary students, this age level was selected as the focus for the RiverXchange program.

We created RiverXchange to provide a free program that is fun, interesting, and easy to integrate into the normal curriculum. Our hope was to motivate participants to explore water resources topics in depth. The program is carried out over eight months so that students spend more time developing a sense of pride and personal connection to their own river ecosystem, as well as a personal connection to a distant river ecosystem and the students who live near it.

RiverXchange began in 2007 as a pilot project of Experiential EE, LLC (under a services agreement with the New Mexico Water Conservation Alliance) and the National Great Rivers Research and Education Center, featuring partnerships between two fourth grade classes in Albuquerque, NM, and two fifth grade classes in Godfrey, IL. A curriculum was developed, a field trip to the river was coordinated, and partner classes "met" three times during the year via video tele-conferencing to present what they had learned. The upper elementary level was chosen because of our successful festival work with this age group.

After the pilot project, we transitioned to a web-based technology called a wiki. This enabled us to overcome limitations such as the high cost, availability, and time zone logistical issues associated with video teleconferencing – and easily involve more classes. The curriculum was updated to incorporate the writing component and we introduced classroom guest speakers to reduce teacher workload and bring up-to-date technical information into the classroom.

In 2012, ownership of RiverXchange transferred to Amy White of Orilla Consulting, LLC, who managed the program through July 2015. In August 2015, RiverXchange became part of the Ciudad Soil & Water Conservation District. Since 2007, we have served nearly 17,000 students!

This year, the program featured the following components:

- Optional standards-based curriculum including hands on science and social studies lessons, as well as writing assignments
- Coordination of class partnerships
- KidBlog online posting and communication
- Teacher training on curriculum implementation and use of KidBlog
- Ongoing technical and motivational support
- Online class postings
- End of year teacher survey
- Pre and post student surveys (NM only)
- Payment for teacher workshop substitute teachers (NM only)

- Coordination of at least four guest speakers into the classroom (NM only)
- Coordination of a field trip to the local river or important watershed feature (NM only)
- Field trip bus transportation payment (NM only)
- Field trip leadership and activity planning (NM only)

Program Management and Financial Support

The program timeframe was July 1, 2017 through June 30, 2018. All components including fundraising, design, planning, implementation, and analysis were carried out by employees and contractors of Ciudad Soil & Water Conservation District, including:

Jennifer Moss
Connie Crandall
Melissa McLamb
Jessica Garduño

Sponsors

- Southern Sandoval County Arroyo and Flood Control Authority
- Middle Rio Grande Stormwater Quality Team

Sponsors provided $51,639.06 in cash. Program expenses included:

- Substitute teachers for NM teacher workshops
- Teacher workshop space rental and meals
- Field trip bus transportation for NM classes
- Field trip portable toilet rentals for NM classes
- Technology services
- Office supplies
- Coordination services (planning, implementing and assessing all program components)

New Mexico In-Kind Partners

- Albuquerque Water Utility Authority
- Bernalillo County Cooperative Extension, 4H
- Bernalillo County - Master Naturalist Program
- Bernalillo County - Public Works Division
- Bosque Ecosystem Monitoring Program
- CDM Smith, Inc.
- City of Albuquerque – Open Space Division
- City of Rio Rancho – Environmental Programs Office
- City of Rio Rancho — Parks, Recreation and Community Services Department
- Daniel B. Stephens and Associates
- New Mexico Museum of Natural History and Science
- Sandoval County Cooperative Extension
- Southern Sandoval County Arroyo and Flood Control Authority

In-Kind contributions totaled $93,152.09. For NM classes, in-kind contributions included classroom guest speakers, field trip docents, planting materials, workshop space and computer lab use, classroom

resources, and teachers' and students' time attending the presentations and field trips. For partner classes, in-kind contributions were not calculated this year. Sponsors and in-kind partners were recognized on our website and in presentations.

Participant Selection

All 39 participating NM classes were fifth grade classes, distributed as follows:

Bernalillo County	**Sandoval County**
Bandelier Elementary (2 classes)	Colinas del Norte Elementary (5 classes) *
Cochiti Elementary (2 classes) *	Martin Luther King, Jr. Elementary (6 classes)*
Duranes Elementary *	Rio Rancho Elementary School (4 classes) *
Georgia O'Keeffe Elementary (3 classes)	Sandia Vista Elementary (1 class)
John Baker Elementary (4 classes)	Bernalillo Elementary (1 class) *
Monte Vista Elementary (3 classes)	Placitas Elementary (1 class)
Osuna Elementary (3 classes)	
Zia Elementary (1 classes) *	
NM Connections (Online statewide class)	
20 classes, 612 students	**19 classes, 576 students**
* Title 1 school	

All but one partner classes were located in the continental United States, the other was located in South Africa. Partner classes included approximately 308 students and 14 teachers. We have found that partner teachers are highly motivated and come to the program with a willingness to participate even though our NM based funding cannot be used to help coordinate their classroom guest speakers, arrange a field trip, or pay for any direct costs.

Teacher Professional Development Workshop

Although preparation began many months earlier, RiverXchange officially kicked off in October with two teacher workshops for NM teachers and online training sessions for partner teachers. Teachers learned how to implement the activities in the curriculum and how to operate and manage their class blog.

This year, educators from Bosque Ecosystem Monitoring Project gave a professional development talk to RiverXchange teachers, emphasizing ways to incorporate environmental education and citizen science projects into the classroom.

KidBlog Technology

One of the challenging aspects of program implementation continued to be the training of teachers on how to use the KidBlog and encouraging them to do so throughout the year. This was our second year using Reflection Groups for blogging and activities. These groups minimize teachers' time in monitoring posts. To strengthen learning outcomes in the future, educators intend to coordinate presentations over a shorter time frame (3-4 months) and assist classrooms with 1-2 posts throughout the program.

Online Partner Training

Many teachers contacted us if they had technical difficulties and we also checked in with many of them mid Fall to answer any questions and troubleshoot any issues.

Curriculum

A component of RiverXchange is the hands on optional curriculum, which is offered to all participating teachers. It was developed to help students reach for deeper meaning through hands-on learning and reinforce what they have learned through the process of writing to their pen pals. Organizers strive to incorporate emerging water resources issues into the curriculum, increase networking opportunities for teachers, reduce teacher workload, and align the curriculum with public school curriculum priorities.

Each class learns about its own local water resources issues through hands-on activities, classroom guest speakers, and a field trip. Students write about what they are learning via a private educational website that can be viewed by their partner classes. The computer technology and writing components provide a unique opportunity to reinforce what was learned, increase student motivation to learn, and collect valuable metrics about student performance.

Through RiverXchange, students take pride in sharing their knowledge of the local ecosystem and learning from their peers about another river ecosystem. Comparing the two geographical areas gives students a broader understanding of the importance of a river ecosystem to human and other life. Students gain the unique opportunity to share personal experiences and ask questions about a distant place. Teachers feel this kind of personal connection is a big deal for kids – many of whom have never traveled beyond their city limits.

All activities are correlated to NM state standards and benchmarks for Science and Social Studies. All activities (because they require that students communicate information on the KidBlog) address Common Core Language Arts standards for writing. Some activities also address Common Core Mathematics and Science standards. For a summary of the RiverXchange Curriculum, see Appendix 1.

Guest Speakers

We coordinated four guest presentations to visit each NM classroom. In all cases, guest speakers were water resources professionals from local agencies. Topics included:

- watershed/nonpoint source pollution

- drinking water
- wastewater
- water and agriculture

Field Trips

The program requires that all classes attend at least one field trip to their local river or important watershed feature, which should incorporate a service learning component if possible. We coordinated all NM field trips. Throughout the winter and spring, students planted over 500 native trees and shrubs and helped restore critical riparian habitat along the Rio Grande in Albuquerque. Several spring field trips included a water quality monitoring component.

New Mexico Field Trip Locations

Gabaldon Trailhead- Open Space

Managed by City of Albuquerque Open Space, this property is located on the east side of the Rio Grande, immediately north of I-40 and Rio Grande Blvd. While students planted native trees, they learned about the history of the Bosque, the significance of invasive species and conservation efforts, and observed porcupines, sandhill cranes, coyotes and other bosque animals.

Tingley Wetland

This 18 acre tract, adjacent to the Bosque in downtown Albuquerque, is owned by the City of Albuquerque, and features a restored constructed pond and peripheral wetlands including native and nonnative aquatic habitat. Students took a hike into the Bosque, observed macroinvertebrates and tested water quality.

Partner Field Trip Locations

Since program funding is NM based, we were not able to assist partner teachers with coordinating a field trip; however, we did provide partner teachers with names of agencies located in most parts of the U.S. that may be able to assist. We know that many of them implement water quality testing. Many also go on field trips to relevant places including water treatment plants, local reservoirs, dams and river/watershed museums.

Evaluation

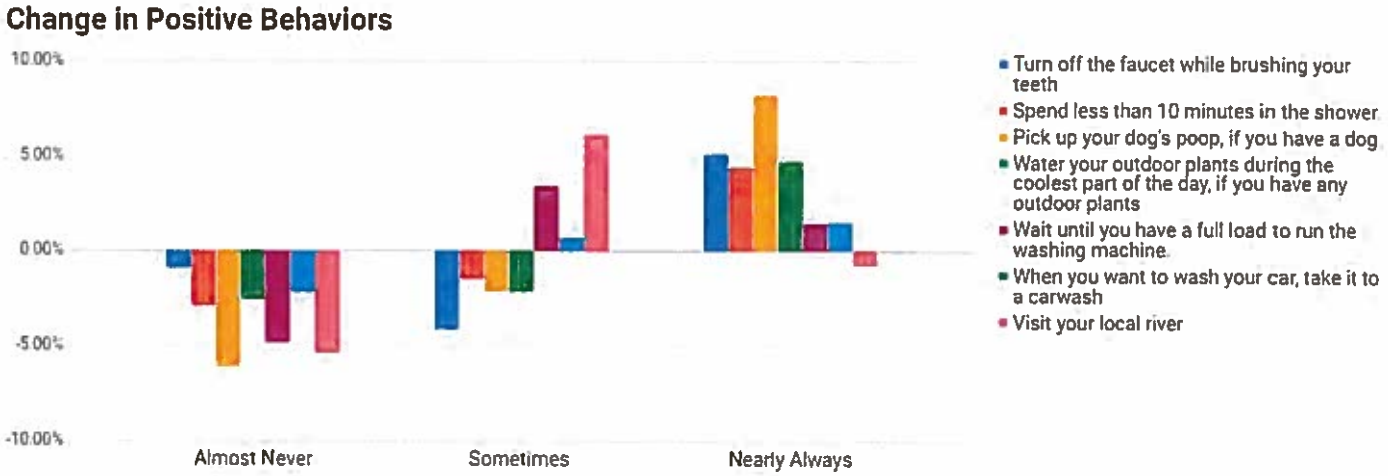
Student Surveys

A key component of RiverXchange is its measurable goals relating to student performance. We collected quantitative data on student performance by way of a pre and post survey and qualitative data by reading what students submitted on KidBlog. We also surveyed students about their actions before and after participating in RiverXchange.

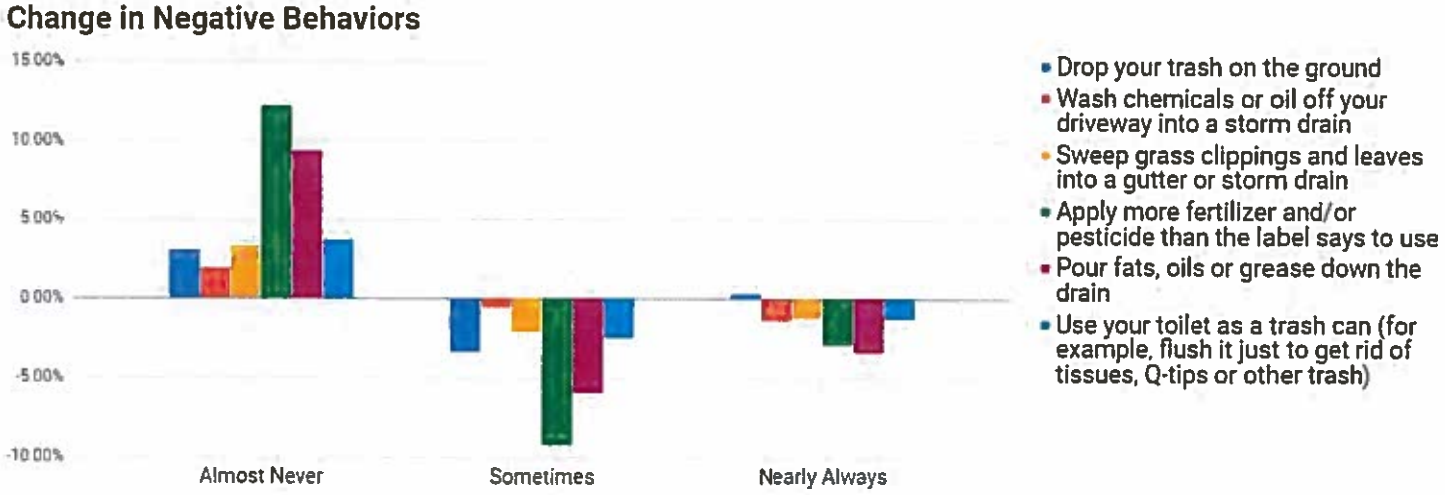
Pre/Post Behavior Survey

In order to quantify the learning outcomes achieved through RiverXchange, we ask our teachers to have their students fill out a survey prior to, and upon completion of the program. Below, you will find a series of graphs used to illustrate the change in responses between the pre and post surveys. This year, 812 students completed the pre-survey, while 623 completed the post-survey. In order to account for this

discrepancy in participation, the number of each given answer has been calculated as a percent of the total number of responses received for each given survey. We continue to refine the survey and our programming year after year based on teacher feedback and metrics gathered from these surveys.

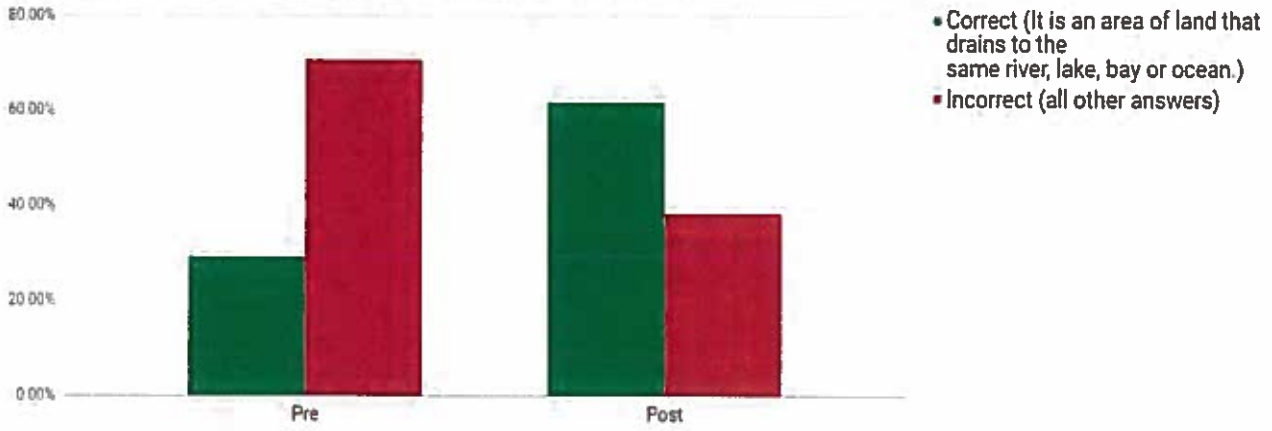


This graph illustrates a significant increase in all the above listed positive behaviors after having received the RiverXchange presentations. For example, the question "How often do you pick up your dog's poop?" saw a 6.1% decrease in the answer "almost never," and an 8.21% increase in the answer "nearly always."

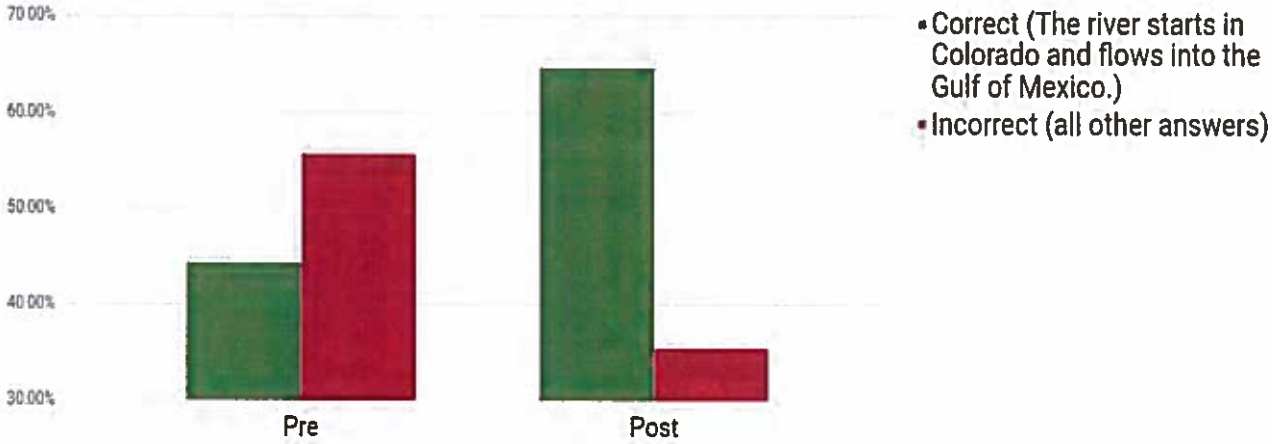


This graph illustrates a significant decrease in all the above listed negative behaviors after having received the RiverXchange presentations. For example, the question "How often do you apply more fertilizer and/or pesticide than the label says to use?" saw a 9.25% decrease in the answer "sometimes," and an 12.17% increase in the answer "almost never."

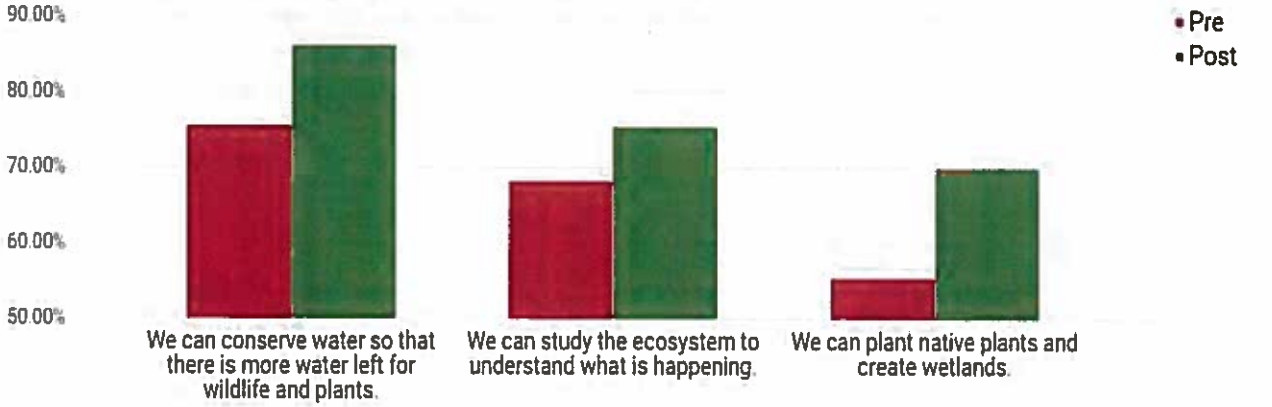
Change in Answer to the question "What is a Watershed?"



Change in Answer to the Question: "Where does the Rio Grande start and eventually end?"

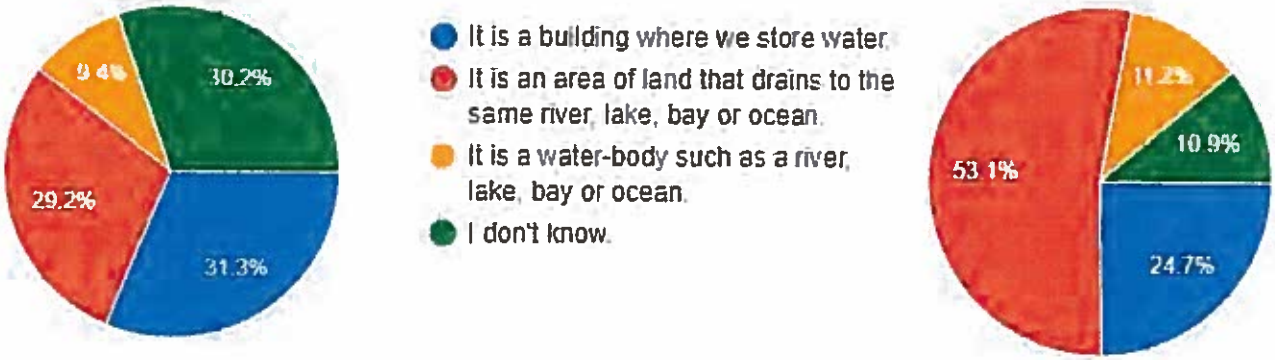


Change in Positive Responses to the Question "What actions can all of us take to improve the health of our ecosystem? Choose all answers that apply."



Change in Negative Responses to the Question "What actions can all of us take to improve the health of our ecosystem? Choose all answers that apply."

What is a watershed (also known as a catchment or drainage basin)?

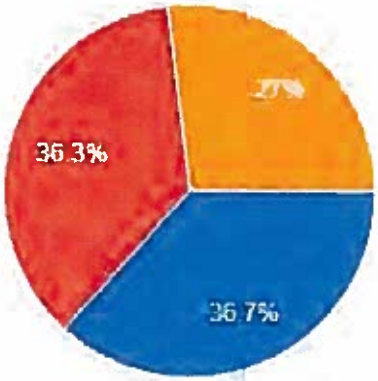


Pre **Post**

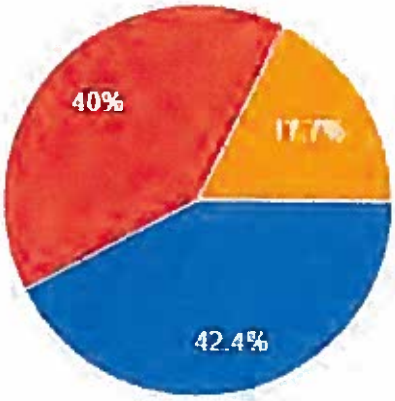
How much precipitation does your community receive each year?

Pre **Post**

When it rains, where does your community's stormwater go?

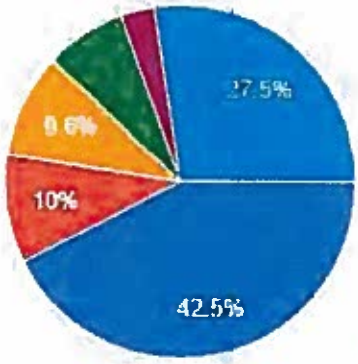


- It goes through storm drains or arroyos into a river, lake, bay or ocean without being cleaned.
- It goes through a sewer to a wastewater treatment plant to be cleaned.
- I don't know.

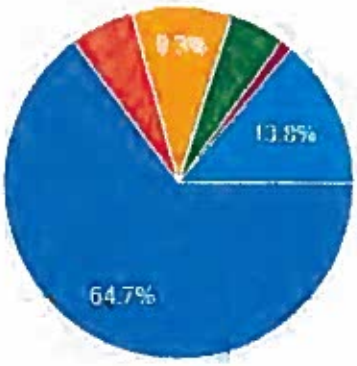


Pre **Post**

Where does your community's wastewater go?

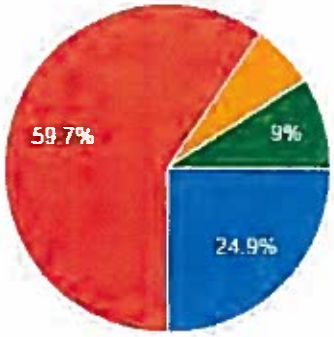


- It goes into a sewer system, which carries it through underground pipe...
- It goes into a storm drain system.
- It goes into a septic system, which treats it in an underground tank nea...
- It goes directly into the river, lake, bay or ocean.
- It goes directly into a drinking water system.
- I don't know.

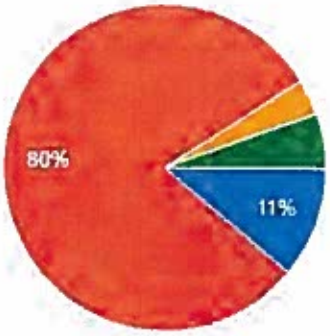


Pre **Post**

Does everyone have the right to use as much water as they want?

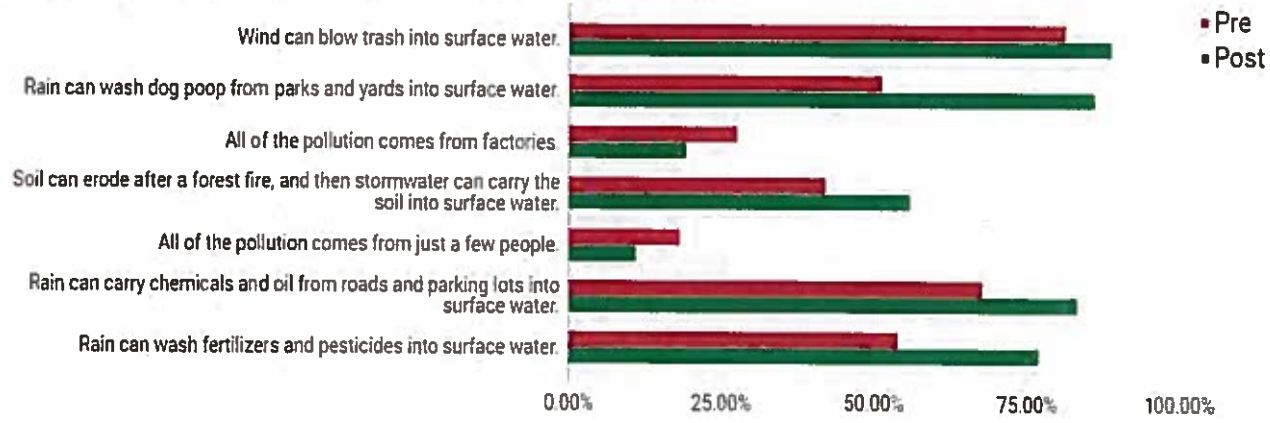


- Yes, we can use as much as we want as long as we can pay for it.
- No, we need to be careful not to use too much because it is a limited resource that must be shared
- Yes, we can use as much as we want because water is free and it's an abundant and renewable resource.
- I don't know.

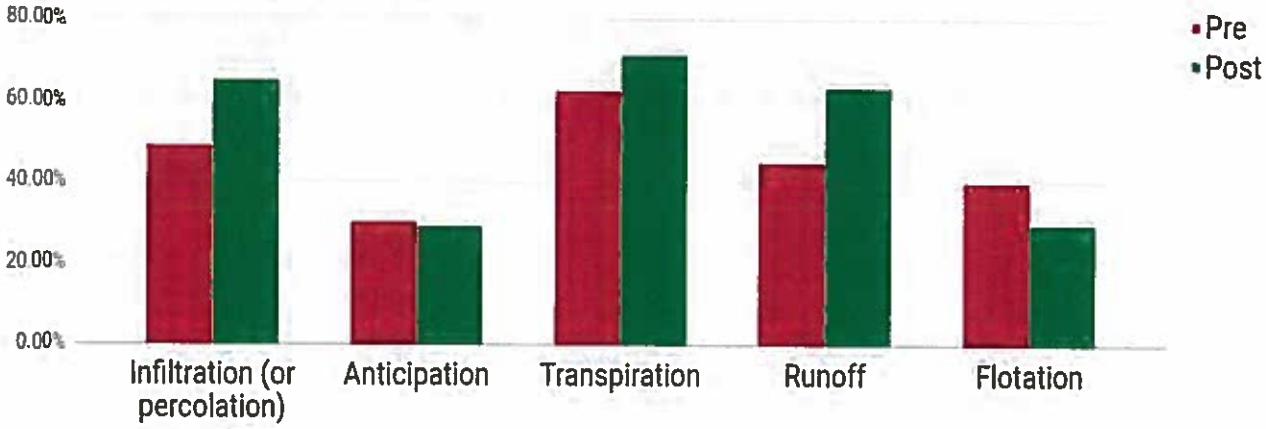


Pre **Post**

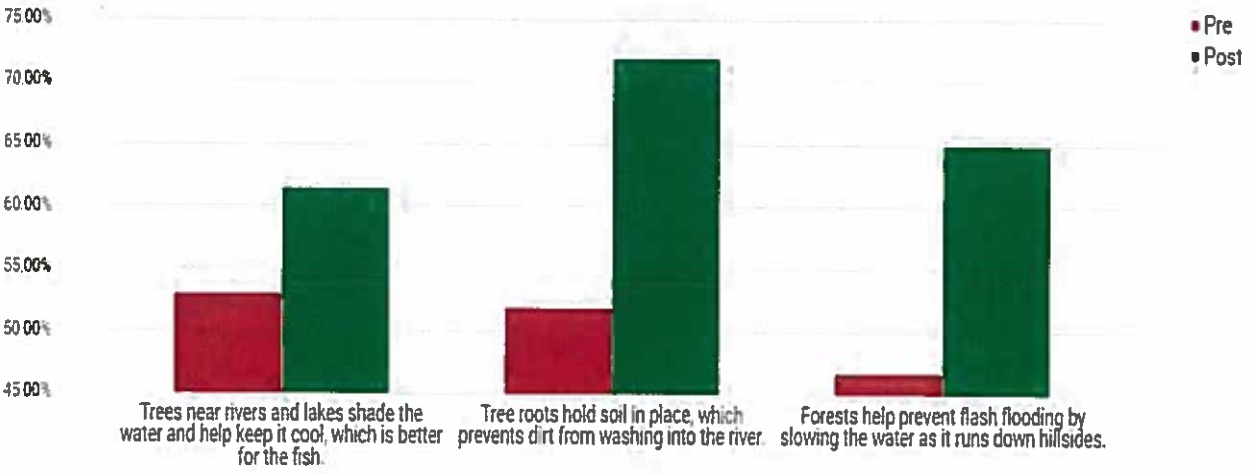
Responses to the Question: "How can surface water (like a river, lake, bay or ocean) become polluted? Choose all answers that apply."



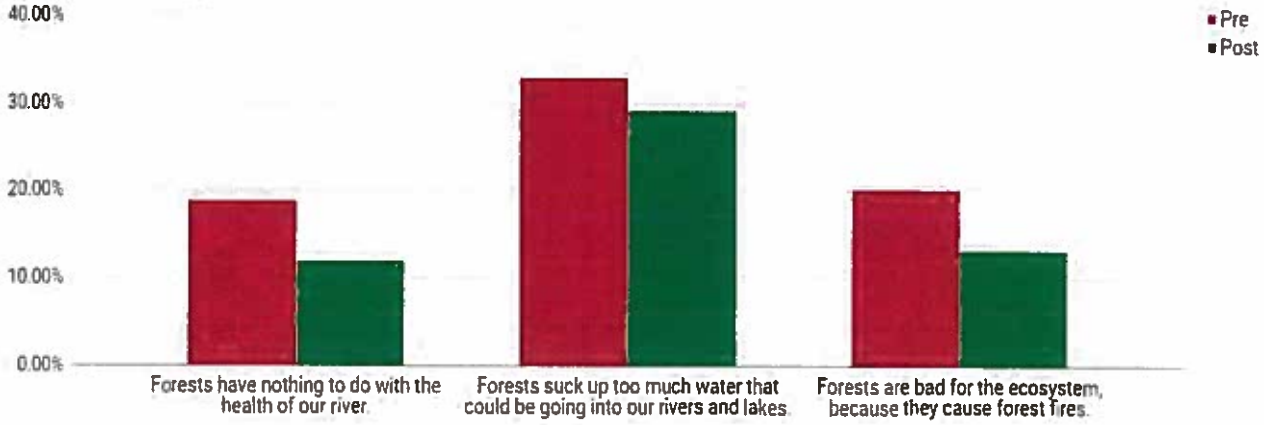
Responses to the Question: "Along with condensation, evaporation and precipitation, identify three other major components of the water cycle."



Change in Positive Responses to the Question: "How do forests affect our river ecosystem? Choose all answers that apply."

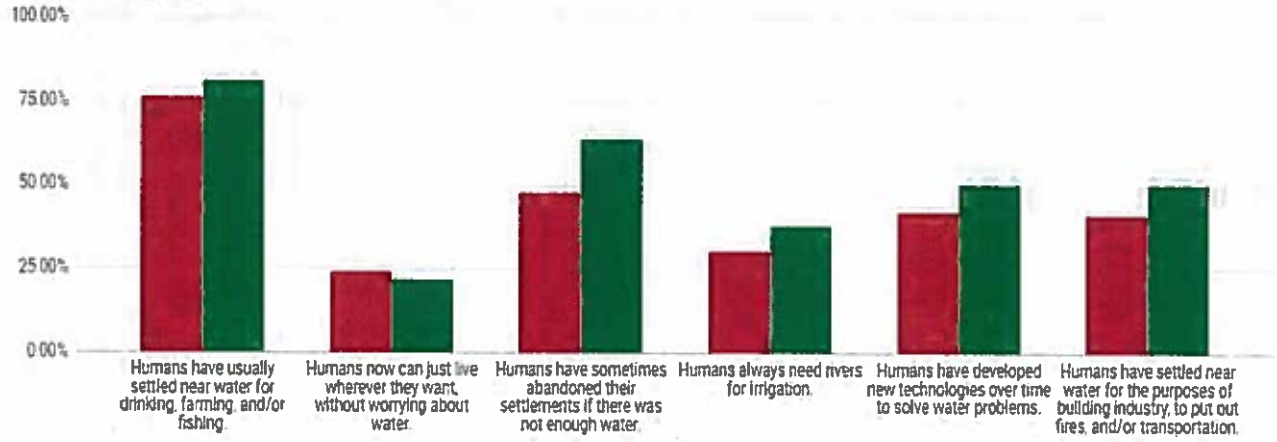


Change in Negative Responses to the Question: "How do forests affect our river ecosystem? Choose all answers that apply."

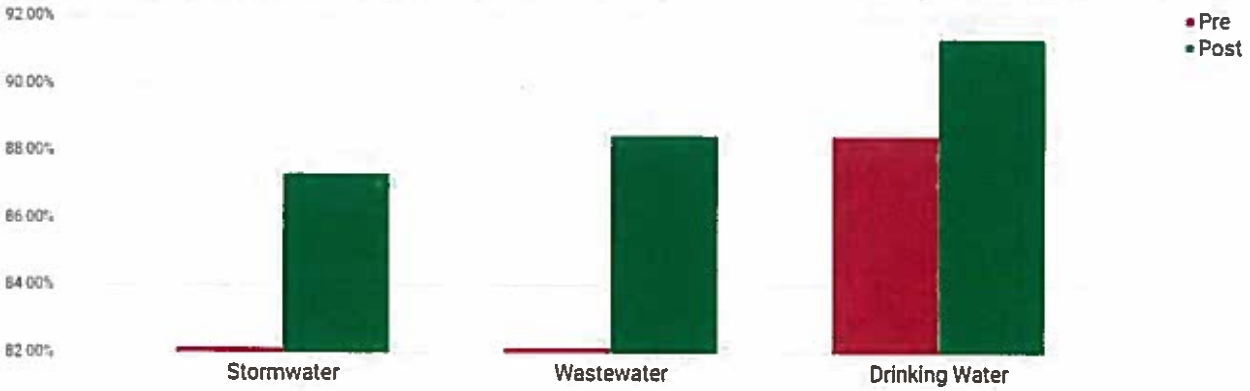


This decrease in negative responses indicates that our students have gained a better understanding of the effects of forests on our river ecosystem after participating in RiverXchange.

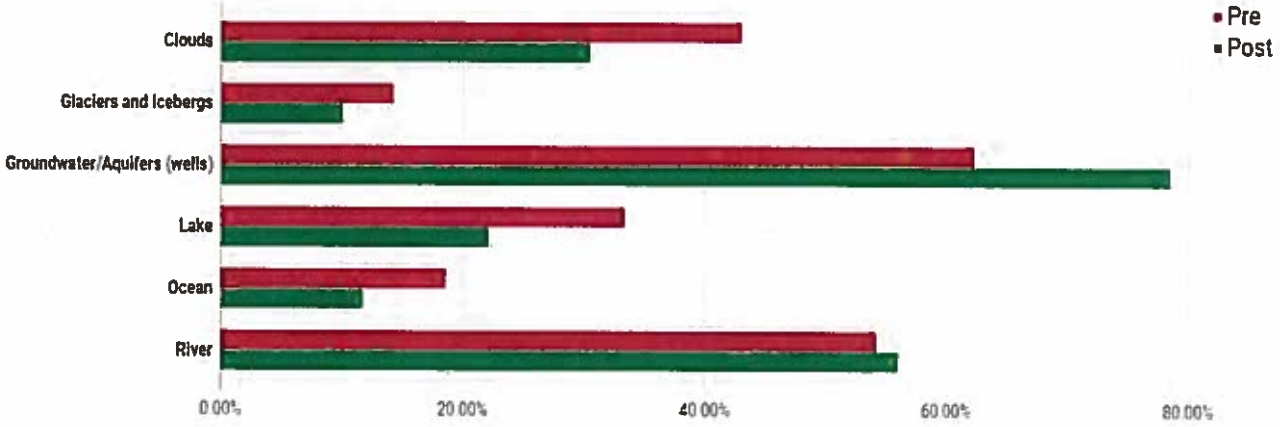
Responses to the Question: "How has water influenced human settlements and culture? Choose all answers that apply."



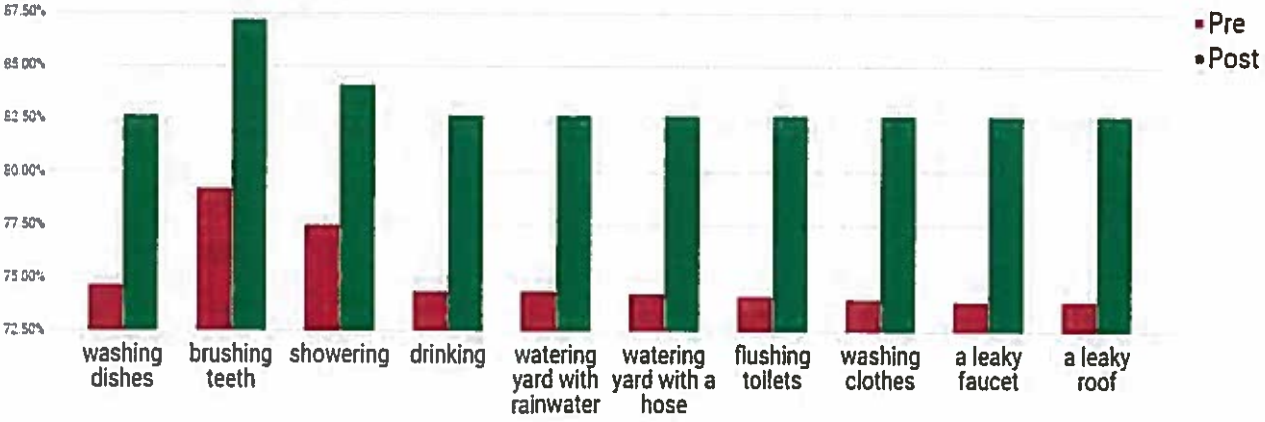
Change in Correct Responses to the Directions to "Match the definitions for drinking water, stormwater and wastewater."



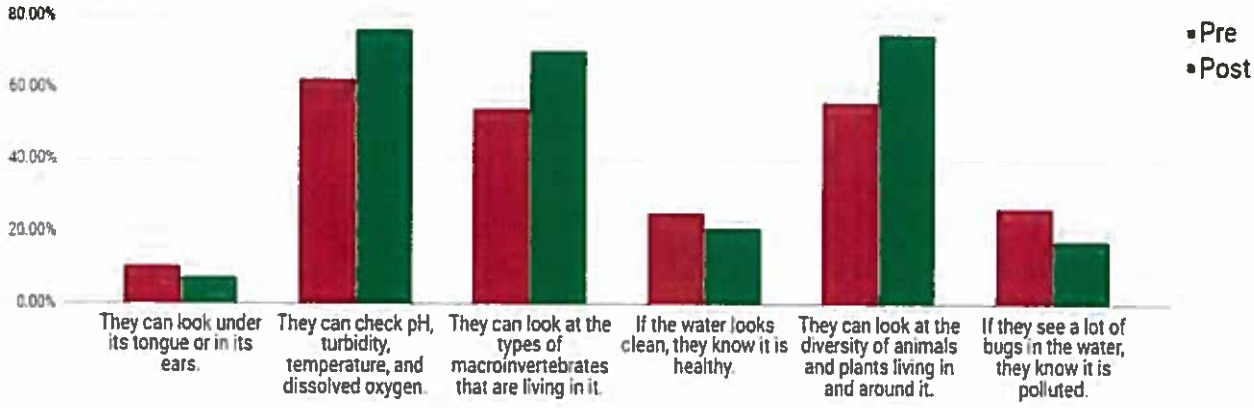
Change in Response to the Question: "From what local source does your community get its drinking water? Choose all answers that apply."



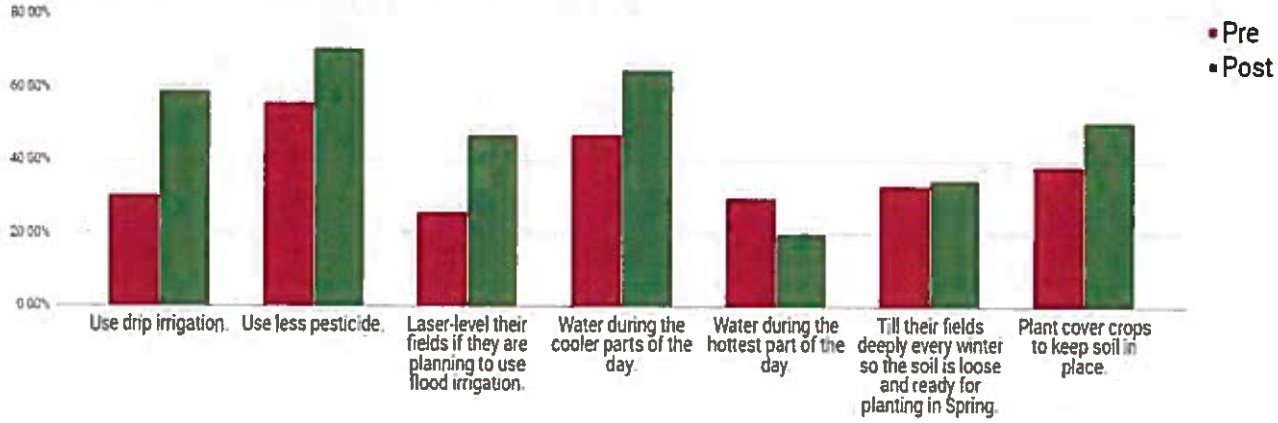
Change in Responses to the Question: "Which of these things use our precious, clean drinking water? Choose all answers that apply."



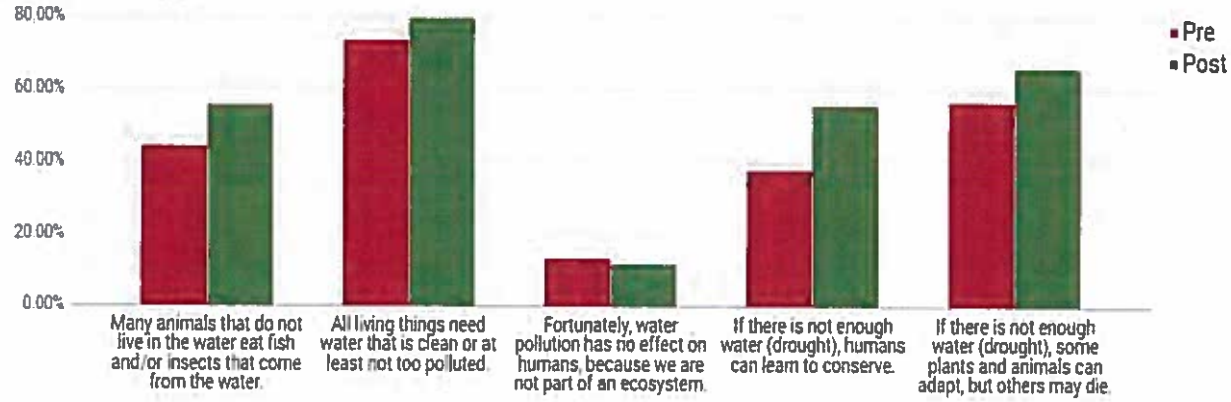
What are some of the ways scientists can determine the health of a river, lake, bay or ocean? Choose all answers that apply.



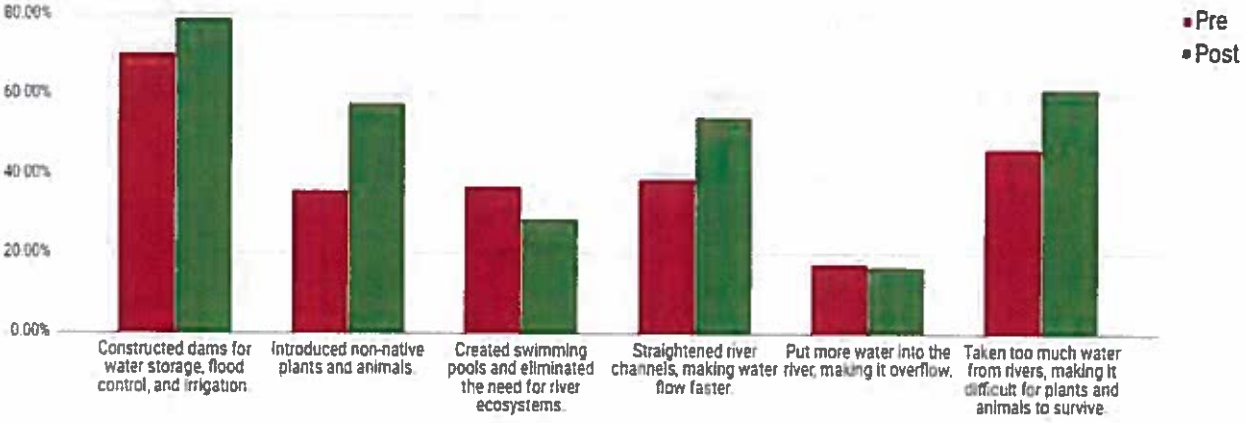
Change in Responses to the Question: "What can farmers do to conserve water or prevent pollution of our water resources? Choose all answers that apply."



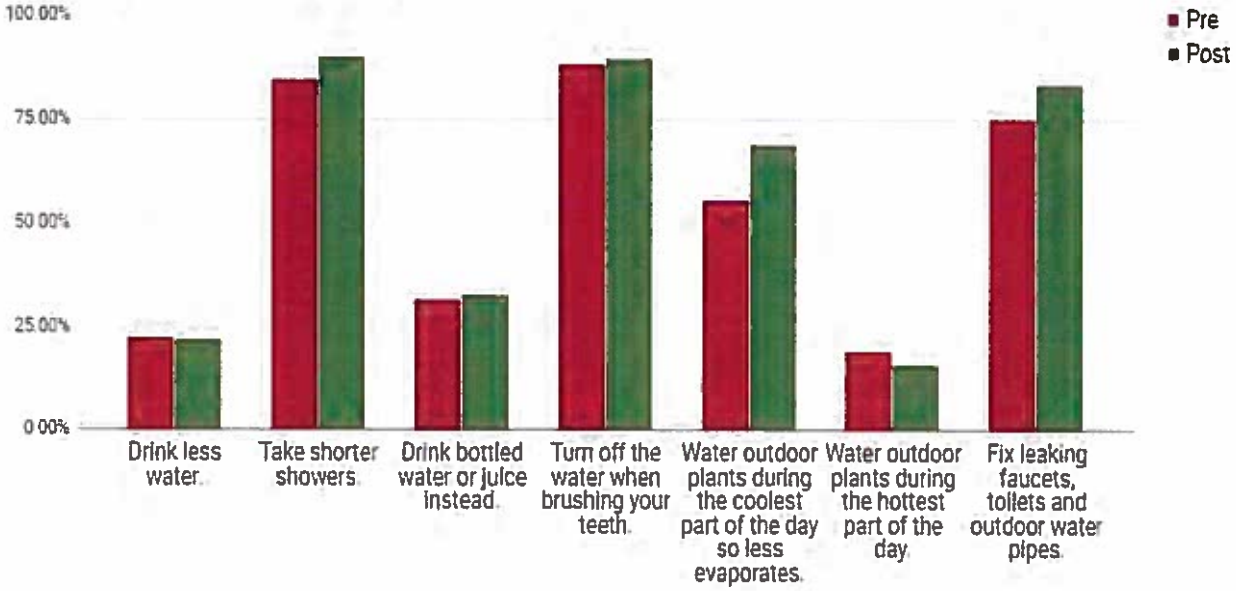
Change in Response to the Question: " How does water affect living things in an ecosystem? Choose all answers that apply."



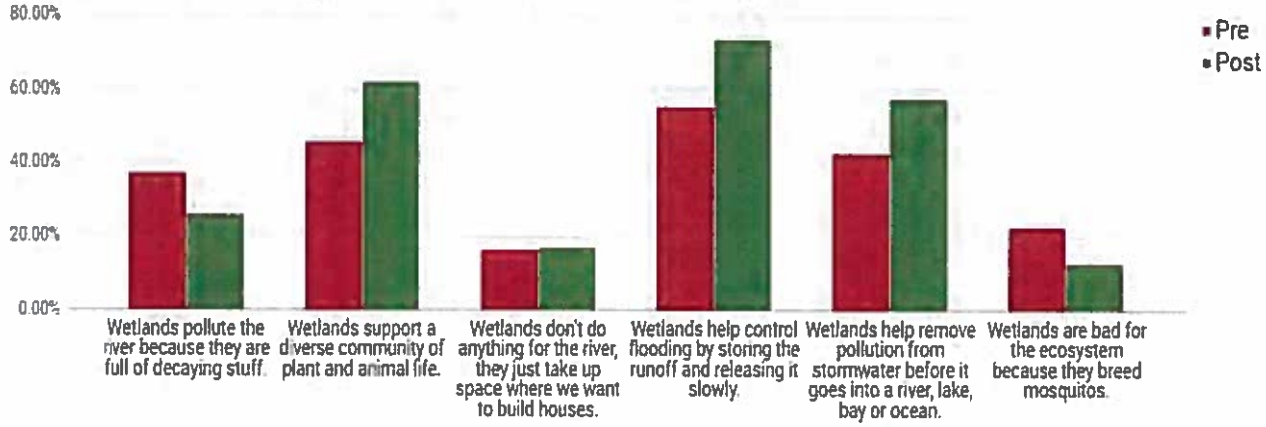
Change in Responses to the Question: "What are some of the ways that humans have changed river ecosystems? Choose all answers that apply."



Change in Responses to the Question: "What actions can all of us take to conserve water? Choose all answers that apply."



Change in Responses to the Question: "How do wetlands (low lying areas where the soil is soaked with water) affect our river ecosystem? Choose all answers that apply."



Student Writing

The writing component is one of the most valuable aspects of the program, yet it continues to be our biggest challenge. We are continually striving to improve participation in this area because it helps teachers integrate writing in the content areas and reinforces student understanding of key water resources concepts. Teachers continued to face major challenges this year in getting efficient internet access in the classroom and/or access to computer labs, which are tied up for much of the year for NM teachers with the PARCC and other computer based tests.

Many teachers joined the program this year planning to use RiverXchange as a major component of their writing program to meet Common Core Language Arts standards, which require teachers to focus more on writing within content areas. Each year, we strongly encourage teachers to have students write and edit paragraphs before going to the computer lab because this promotes higher quality thinking and writing. When students do go through this process, it shows. We also encouraged teachers to use various forms of communication in addition to writing, such as videos, PowerPoint presentations, or audio files.

We had a couple of partner classes from different regions of NM. This encouraged a greater understanding of different sections of the Rio Grande for students.Many partner teachers register for the program having already prioritized the need to organize classroom time to blog throughout the school year, so as to ensure they have a successful experience as participants. In contrast, many NM teachers register for the program to receive the beneficial learning experiences of the presentations and field trip; the blogging and partnership aspect is not as strong of an incentive for their participation as it is the main incentive for the partner teachers.

We know from discussions with teachers over the years that the absence of student writing does not mean they did not do the activities, or that no learning took place. Many teachers were dealing with issues unrelated to the program, such as new curriculum in other areas, school reorganization, construction which prevented access to the computer lab for a portion of the year, or personal life changes that conflicted with engaging more with the program. We did our best to foster successful online partnerships. Even though some blogs had minimal to no activity, NM students still benefited from the guest speakers and the field trip.

Appendix 1 includes the RiverXchange curriculum, Appendix 2 includes post presentation questions and follow up activities, Appendix 3 includes photos.

Appendix 1

Curriculum

RIVERXchange

Welcome to RiverXchange... exploring watersheds through global collaboration!

RiverXchange is about communication and developing 21st Century Skills while learning about our watersheds! Each class will be partnered with one or more classes in a different state. **The big idea is to communicate with your partners *at least twice each semester* by posting projects on your shared private educational blog and responding to what your partners have posted.**

The Big Water Questions

Understanding a Watershed

- What is a watershed?
- Where does your community's stormwater go?
- How can surface water become polluted?
- How does the water cycle relate to weather?
- What role do forests play in a watershed?
- What role do wetlands play in a watershed?
- What actions can all of us take to keep water clean?

Water in Our Society

- In what ways does our society use water?
- From what source does your community get its drinking water?
- Does everyone have the right to use as much water as they want?
- What actions can all of us take to conserve water?
- How are groundwater and surface water connected?
- How can groundwater become polluted?
- Where does your community's wastewater go?
- What is the difference between wastewater, stormwater, and drinking water?

River Ecosystem

- How does water affect living things in an ecosystem?
- What are some of the ways scientists can determine the health of a river, lake, bay or ocean?
- What are some of the ways humans have changed rivers or other aquatic ecosystems?
- What actions can all of us take to improve the health of our ecosystem?

Student Assignments:

All of the lessons in our curriculum include a "Student Assignment" which can be expressed through writing, photos, video, audio, powerpoint, or other projects. **The only requirement is that you post two projects each semester, and respond to what your partners have posted.** This new format supports the essence of our program - meaningful sharing between classes.

Suggestions include:

- Create a public service announcement
- Create a news cast with various reporters discussing different areas
- Create a short documentary
- Write a environmental journalistic piece based on water challenges in your community
- Create an animation (using a tool such as kid pix)
- Create a powerpoint presentation
- Write a poem
- Write a book report for one of the suggested books
- Create a poster and post a photo of it on the wiki

We know that with all the other pressures in schools today, it may be difficult to find time to share on the wiki. Here are some suggestions we have gathered over many years of working with teachers on this great program.

Strategies for making the most of limited computer time:

1. **Take videos on your smartphone, then post them yourself to group pages**
2. **Take pictures of posters or hand written assignments, then post to group pages.**
3. **Do a whole class project/posting using the Promethean or Smart Board.** For instance, write down all the things that can pollute our river, group them by source/non-source, identify which ones the kids can help prevent, save and post the final diagram in each of the groups on the wiki.
4. **Read postings from partners using Promethean or Smart Board, as a "Friday fun day" activity** on the weeks they have posted. This could be done as a reading aloud/public speaking exercise.
5. **Identify and train one student from each group to be the "tech leader."** Have just these students use the limited classroom computers to post the group projects.
6. **Encourage posting from home as homework.** Just be sure to monitor what was posted the next day. Even if not all students have computers at home, some will. Consider dividing students up so that at least one person in each group has computer access at home, and they could become the "tech leader."

Strategies for planning and integrating with other curriculum:

1. When looking at your plans for the year, for all subjects, keep RiverXchange in mind. Remember, if you want to post "out of order" that is fine!
2. Modify the style of writing to match what you are planning to cover at that point in the year.
3. Posting shortly after a guest speaker comes to your class is recommended, so you could also consider rearranging your language arts curriculum (and scheduling your computer lab time) to coordinate with times when presenters are scheduled.
4. Whatever subject you enjoy the most, see how you can use RiverXchange to enhance it.
    a. Social studies: history of why early settlers lived where they did, economic impact of rivers and water, use of water by industries
    b. Math: calculate water use, waste, length of rivers, etc
    c. Science: volume, density, states of matter
    d. Language arts: writing is obvious but also poetry, reading informational texts, public

speaking

e. Other specialized topics such as engineering, careers, art, music

New Mexico Curriculum Overview

Remember, partners in other states may be doing their own curriculum, but we hope you will be able to have good discussion on several of these topics over the course of the year. You may also want to combine some of the lessons so that students do a project that incorporates elements of multiple topics from the curriculum. For example, you could have students write about their river's geography while also talking about its watershed and ways to keep pollution out of it.

Unit 1: Understanding a Watershed

1. River Geography
2. Watershed Model
3. Infiltration and Runoff
4. Forests and Wetlands

Unit 2: Water in Our Society

5. Commercial Uses of Our Rivers
6. Drinking Water
7. Groundwater
8. Wastewater

Unit 3: River Ecosystems

9. Field Trip (with pre and post activities)

Unit 1: Understanding a Watershed

Project 1: River Geography

Student Assignment

Write a friendly letter to your partners or create another type of project, explaining:
a) what a watershed is
b) the name of your river - this is also the name of your watershed!
c) the journey of your river from its headwaters to the ocean
d) what the river is like in your area - big/small, clear/muddy, fast/slow?
e) how much precipitation your area receives each year, and what season gets the most precipitation

Informational Texts

- *Follow the Water from Brook to Ocean*, by Arthur Dorros or *Paddle-to-the-Sea*, by Holling C. Holling
- *KRQE* news. "Moisture Makes One-Third of New Mexico Drought-Free" http://krqe.com/2015/05/26/moisture-makes-one-third-of-new-mexico-drought-free/

Classroom Activity – Flexible! Just do as much as you want, and feel free to substitute other activities.

1. Read the book, *Follow the Water from Brook to Ocean,* by Arthur Dorros (about the Colorado River) OR *Paddle-to-the-Sea*, by Holling C. Holling (most U.S. School or public libraries have one or the other, or they can be purchased online). Explain how water flows from smaller bodies of water into a larger body.
2. Show the *All About Watersheds* poster (see link below.) Introduce the concept of a **watershed** as the land area that drains into a body of water, and explain that this is where **surface water** comes from.
3. Show students the *U.S. Watersheds Map* (see link below), pointing out your watershed and your partners' watershed. Talk about the significance of the *Continental Divide* (see link below) in North America, and show them where it is in New Mexico. Ask students "Is every place in the world part of a watershed?" Even if there are no hills or mountains, and there is no visible surface water, every place IS in a watershed because precipitation that falls on that land area eventually drains somewhere.
4. Have students identify your river or stream on a large classroom map, and show them where your school is located in relation to your river (north, south, east, west). Figure out where your river or stream starts (**headwaters**), what **tributaries** flow into it, and what ocean it flows into at its **delta** (many students may not know that the Gulf of Mexico is part of the Atlantic Ocean).
5. Point out what towns (if any) are upstream from you and discuss how they could affect your water (quantity and quality) either positively or negatively. Discuss what towns are downstream (if any) and how your town could affect their water, either positively or negatively. Trace your river's path to the ocean, recording each body of water it passes through.
6. Locate your school and your partners' school on the *Precipitation Map* (see link below). How many inches of precipitation does your area receive? Compare with your partner's ecosystem. You may want to read the Albuquerque Journal article (see link above) about the drought in New Mexico.
7. Discuss seasons, timing of your area's precipitation, the altitude of your area and how these affect weather. Explain how **precipitation** and **snowpack** affect the river.
8. Show students the *Major Cities and Rivers Map* (see link below), and ask them why they think so many big cities are located near major bodies of water.
9. ***Optional:*** If you have time, students (or groups of students) could research major flora and fauna in different regions along the length of your river or tributaries and create a picture postcard from that place. Or, they could write a story about a journey down the river.
10. ***Optional:*** New Mexico classes -- for more information about the Rio Grande watershed in New Mexico, show students the *Everything is Connected in a Watershed* poster (in teacher packet), then visit the *All About Watersheds* website (see link below) to explore the interactive version.

11. ***Optional:*** Learn about the Great Pacific Garbage Patch and ocean gyres, using the PBS lesson plan and video (see link below). You may also want to show photos taken by Chris Jordan on Midway Atoll demonstrating the effects of wildlife consuming plastic.

Materials

- *U.S. Watersheds* map: http://maps.howstuffworks.com/united-states-watersheds-map.htm
- *Basic information about the Continental Divide:* http://education.nationalgeographic.com/encyclopedia/continental-divide/
- *Precipitation Map:* http://www.wrcc.dri.edu/pcpn/us_precip.gif
- *Major Cities and Rivers Map:* http://cgee.hamline.edu/rivers/Resources/watershedmaps/quiz3.htm
- *Everything is Connected in a Watershed* poster and *All About Watersheds* website link: http://allaboutwatersheds.org/poster/poster_view
- ***Optional:*** Great Pacific Garbage Patch lesson plan http://www.pbs.org/kqed/oceanadventures/video/gyre and Laysan Albatross photos http://ocean.si.edu/slideshow/laysan-albatrosses%E2%80%99-plastic-problem **(Caution - these photos are pretty graphic, so be sure to preview before sharing with students.)**

Vocabulary

- **Watershed:** The land area from which snowmelt and rain drain into a river, lake or other body of water. Also known as a drainage basin or catchment.
- **Surface water:** Water collected on the ground or in a waterbody such as a stream, river, lake, wetland or ocean.
- **Continental Divide:** A drainage divide on a continent (in the U.S., the Rocky Mountains) such that the drainage basin on one side of the divide feeds into one ocean or sea, and the basin on the other side either feeds into a different ocean or sea.
- **Headwaters:** The source of a river (where it starts).
- **Tributary:** A creek, stream, or river which feeds a larger stream or river or a lake.
- **Delta:** The mouth of a river (so named because it is triangle-shaped like the Greek capital letter Delta).
- **Desert:** A region that receives less than 10" of precipitation per year.
- **Precipitation:** All the water that falls from the sky, in solid or liquid form, such as rain, snow or hail.
- **Snowpack:** The amount of snow that accumulates annually in a mountainous area.
- **Floodplain:** Land that may be submerged by flood waters, or a plain built up by materials deposited by a river.

Project 2: Watershed Model

For NM classes, this is presented by a guest speaker. For partner classes, we encourage you to see if you can find someone from a local agency who has a watershed model, such as the Enviroscape.

Student Assignment

Write a *persuasive* paragraph, or create another type of project, about why it is important to keep stormwater clean and what we should do.

Informational Texts

- *Science News for Kids* article. "Suffocating Waters" http://www.d123.org/olhms/dedie/documents/suffocatingwaters.pdf
- *CNN* article. "Garbage Man of the River" http://www.cnn.com/2013/04/18/us/cnnheroes-pregracke-rivers-garbage

Classroom Activity – Flexible! Just do as much as you want, and feel free to substitute other activities.

1. Watch *The Human Solution to Water Pollution* video (see link below).
2. Schedule a guest speaker to bring a model of a **watershed**, OR make your own using the activity on the back of the USGS poster – *Watersheds: Where We Live* (the poster can be shown on a smartboard – see link below, and a printable copy of the activity is on the RiverXchange Curriculum Page).
3. Discuss how the gutters in our streets lead to **storm drains**, which often lead directly to the nearest body of water. Discuss the difference between **stormwater** and **wastewater** (from household drains and toilets). Find out how your community handles stormwater – is it combined with a municipal wastewater (sewage) system?
4. Read news articles (see links above) about garbage in rivers and dead zones caused by nutrients in agricultural runoff. Review the *Top Ten Ways to Protect Our Precious Water* handout (in teacher packet), and brainstorm other ways to reduce **nonpoint-source pollution**.
5. ***Optional:*** For a great math-based extension activity, try *Don't Trash Our Rio* (in teacher packet) where students learn how much trash is pulled from Albuquerque's storm drain system yearly, and calculate how many trash bags or classrooms it would fill. Even though it is based on an Albuquerque news article, this activity is applicable to any area that has a storm drain system.
6. ***Optional:*** Watch *The Majestic Plastic Bag* video (see link below).
7. ***Optional: New Mexico classes,*** watch *Segment 3* of the Mid Rio Grande Stormwater Quality Team's educational video (link below) to learn about Albuquerque's and Rio Rancho's stormwater system.
8. ***Optional: Partner classes,*** Google "stormwater" in your area and see what information is there. Water districts, the Departments of Health and Environment etc. have many educational resources.

Materials

- *The Human Solution to Water Pollution* video (to right of screen): http://sscafca.org/teacher-resources/
- *Top Ten Ways to Protect Our Precious Water* handout (in teacher packet and on wiki Curriculum page)
- Watershed model such as Enviroscape, **OR** USGS poster – *Watersheds: Where We Live* (the poster is available at http://water.usgs.gov/outreach/Posters/watersheds/grade.html and a printable copy of the activity is on the RiverXchange Curriculum Page) and supplies:
    - Butcher paper (or newspaper) and plastic wrap
    - Several large baking pans or plastic containers (clear ones can be reused for Project 4: Groundwater)
    - Waterproof marker
    - Spray bottles filled with water
    - Small plastic houses, cows and cars (or little pieces of modeling clay to represent these)
    - Cocoa powder and colored drink powders
- ***Optional:*** *Don't Trash Our Rio* activity (in teacher packet)
- ***Optional:*** *The Majestic Plastic Bag* video: https://vimeo.com/14221747

- ***Optional:*** Watch *Segment 3* (16:05-end) of the Mid Rio Grande Stormwater Quality Team's educational video: http://www.keeptheriogrand.org/keeping-the-rio-grand/

Vocabulary

- **Watershed:** The land area from which snowmelt and rain drain into a river, lake or other body of water. Also known as a drainage basin or catchment.
- **Point-source pollution:** Water pollution coming from a single point, such as a sewage-outflow pipe or a factory.
- **Nonpoint-source pollution:** Water pollution coming from a wide land area, not from one specific location. Occurs when rainwater, snowmelt, or irrigation runs off plowed fields, city streets, or suburban backyards, picking up soil particles and pollutants, such as nutrients, pesticides, and other chemicals.
- **Storm drain:** A drain, often under sidewalks, designed to collect excess rain and ground water from impermeable surfaces such as streets, parking lots, sidewalks, and roofs. Also known as a storm sewer.
- **First flush:** The first surface runoff of a rainstorm. This is when we see the highest levels of pollution in water entering the storm drains.
- **Stormwater:** Runoff from a storm which either flows directly into a water body or is channeled into storm drains, which eventually discharge to surface waters.
- **Wastewater:** All the water that goes down a drain into a municipal sewer system or septic system. Also known as sewage.

Project 3: Infiltration and Runoff

Student Assignment

Where does rainwater go when it falls on your school grounds? Write a *RACE* paragraph, or create another type of project, using evidence from your mini-field trip around the school.

Informational Texts

- *USA Today* article. "La Niña Brings Flood Risks, Drought to the West" http://usatoday30.usatoday.com/weather/news/2011-05-12-west-floods-drought_n.htm
- *LA Times* article. "3 days after rain, beach water can still make swimmers ill, study says" http://www.latimes.com/science/sciencenow/la-sci-sn-beach-advisories-storm-runoff-20140303-story.html#axzz2v99eazt7.

Classroom Activity – Flexible! Just do as much as you want, and feel free to substitute other activities.

1. Listen to the *Water Cycle Song* (see link below). You may want to print out the lyrics for students (a printable copy is on the RiverXchange Curriculum Page). Review the six major components of the water cycle: **precipitation, runoff, infiltration, evaporation, transpiration,** and **condensation.**
2. Discuss how the sun's energy starts the whole process, and how the water cycle relates to weather, recalling the amount and timing of your area's precipitation.
3. Point out that when precipitation hits the ground, it can either run off, sink in (infiltration, also known as percolation) or evaporate back into the air. Explain how all plants move water from the ground to the air through the process of transpiration.
4. Read the *USA Today* article (see link above) and discuss how **La Niña** and **El Niño** bring dry weather or wet weather to your area. Discuss what happens in different areas of the school when you have too much rain – are there areas that flood?
5. Using *Investigating the School Grounds* (a printable copy is on the RiverXchange Curriculum Page) as a guide, take students on a "mini field trip" to investigate where rainwater goes on your school grounds to observe changes in land contours, and the location of downspouts and catchment areas. Discuss where runoff appears to be occurring, what affects infiltration, and the difference between **permeable** and **impermeable surfaces.**
6. Discuss how storm drains carry pollution from impermeable surfaces into the nearest body of water, whereas the process of infiltration into permeable surfaces helps filter out pollution. You may want to read the LA Times article (see link above) about pollution from stormwater.
7. Discuss how runoff can cause flash floods. In Albuquerque, concrete-lined arroyos are very dangerous because runoff comes from a larger area and the water moves very fast – people have drowned. In Rio Rancho, the arroyos in their natural state are generally safe unless rain clouds are visible.
8. ***Optional:*** For a math-based extension, test infiltration on various surfaces, using *Does it Soak Right In?* (a printable copy is on the RiverXchange Curriculum Page) as a guide. Graph the data as a class to build data analysis skills.

Materials

- *Investigating the School Grounds* activity (a printable copy is on the RiverXchange Curriculum Page)
- *Water Cycle Song:* http://www.abcwua.org/education/music/water%20cycle%20song.mp3
- *Water Cycle Song* lyrics (a printable copy is on the RiverXchange Curriculum Page)
- ***Optional:*** *Does It Soak Right In?* activity (a printable copy is on the RiverXchange Curriculum Page)
    - A soup can for each group, all the same size, with both ends cut off
    - Stopwatches
    - Rulers
    - Measuring cups

Vocabulary

- **Precipitation:** All the water that falls from the sky, in solid or liquid form, such as rain, snow or hail.
- **Runoff:** The rain or snow that does NOT sink into the ground, that runs off the land into a river, lake or other body of water (often carrying dirt and pollution with it).
- **Infiltration:** The process of water sinking down into the ground to refill the aquifer. Also called percolation.
- **Evaporation:** The process by which water changes from liquid to vapor (water in a puddle, river, lake, ocean, or other body of water evaporates into the air).
- **Transpiration:** The process by which water comes out of the leaves of plants, primarily through openings in the leaves, and goes into the air.
- **Condensation:** The process by which water changes from vapor to liquid (water in clouds condenses to form rain).
- **Impermeable surface:** A material that water can NOT soak into (or infiltrate); also called an impervious surface.
- **Permeable surface:** A material that water can soak (or infiltrate) into; also called a pervious surface.
- **Flash flood:** A rapid flooding (less than six hours) of low-lying areas (such as washes, rivers, dry lakes, basins), caused by heavy rain, snow or sudden ice melt in surrounding areas.
- **Arroyo:** A Spanish word for a drainage ditch, gully or ravine which was carved by water drainage.

Project 4: Forests and Wetlands

Student Assignment

Write a *persuasive* paragraph, or create another type of project, about why wetlands and forests are important in our watersheds.

Informational Texts

- *ABQ Journal* article. "River Diversions Halted Due to Burn Scar Runoff" http://www.abqjournal.com/45855/abqnewsseeker/river-diversions-halted-due-to-burn-scar-runoff.html
- American Forests. "Forests and Water" https://www.americanforests.org/conservation-programs/forests-and-water/
- *Rapid City Journal* article. "Federal Government Confirms Wetland Channels Are Keeping Rap id Creek Cleaner" http://rapidcityjournal.com/news/local/federal-government-confirms-wetland-channels-are-keeping-rapid-creek-cleaner/article_b2a2e469-5100-5a66-866d-0733f183b0ee.html

Classroom Activity – Flexible! Just do as much as you want, and feel free to substitute other activities.

1. Watch *The Adventures of Junior Raindrop* video (see link below) to learn about how vegetation helps prevent **erosion.**
2. Read the *ABQ Journal* article (see link above) about erosion from wildfires polluting the Rio Grande.
3. Do the *Wetland Model* activity from the back of the USGS poster – *Wetlands: Water, Wildlife, Plants* (the poster can be shown on a smartboard – see link below, and a printable copy of the activity is on the RiverXchange Curriculum Page) to examine the effects of a **wetland** in reducing erosion and controlling flooding.
    - To model forests in the watershed, stick cotton balls in the clay and repeat the experiment again to see that the muddy water gets even cleaner as it travels through the "forest."
4. Even in desert areas like New Mexico, there are wetlands, and **riparian areas.** Many are constructed (man-made) specifically for cleaning stormwater. Read the *Rapid City Journal* article (see link above) on how constructed wetlands help keep their creek clean. Discuss how these areas also support a diverse community of living things, and how many people used to think wetlands were not important. In fact, they would fill them in with soil and build right on top of them!
5. Find books from your library on different kinds of wetlands, and discuss the differences in wildlife and plant communities they support – *OR* watch the *NatureWorks* video (see link below).
6. ***Optional:*** Do the *Water Treatment Plants* activity (see link below) to see how celery sticks, like wetland plants, can help filter water by absorbing pollution. This activity is very quick to set up, then just wait one day to see what happens.
7. ***Optional: New Mexico classes,*** watch the section about Sanchez Farm in the Mid Rio Grande Stormwater Quality Team's educational video (link below) to learn how a constructed wetland helps clean stormwater.

Materials

- *The Adventures of Junior Raindrop* video: http://www.archive.org/details/Adventur1948
- USGS poster – *Wetlands: Water, Wildlife, Plants.* The poster is available at http://water.usgs.gov/outreach/Posters/wetlands/middle.html, and a printable copy of the activity is on the RiverXchange Curriculum Page.
- Supplies:
    - Small rectangular plastic storage containers, or baking pans or paint trays
    - Modeling clay
    - Small pieces of carpet
    - Cotton balls

- *NatureWorks* video http://video.nhptv.org/video/1491178229
- ***Optional:*** *Water Treatment Plants* activity (a printable copy is on the RiverXchange Curriculum Page)
    - Celery sticks
    - Cups of colored water
- ***Optional:*** *Keeping the Rio Grand* http://www.keeptheriogrand.org/keeping-the-rio-grand/, the Mid Rio Grande Stormwater Quality Team's educational video (the part about the constructed wetland is from 13:12 - 16:01)

Vocabulary

- **Erosion:** The process in which a material (such as a river bank) is worn away by water or air, often due to the presence of abrasive particles in the stream.
- **Wetland:** An area such as a marsh or swamp that is covered with shallow water or where the soil is naturally soaked with water.
- **Riparian area:** The area around the banks of a natural body of fresh water, where the vegetation and landscape is directly influenced by that water.

Unit 2: Water in Our Society

Project 5: Commercial Uses of Our Waterways

For NM classes, this is presented by a guest speaker from the county's Cooperative Extension. For partner classes, we encourage you to see if you can find someone from a local agency or business who can present on this topic.

Student Assignments

Write an *informational* paragraph or a *friendly letter* to your partners, or create another type of project, explaining:

a) How was the river (or other waterway) important when people first settled in your community?
b) How has your waterway been used by people for commerce (to make money) in your community's history?
c) Do some people still rely on the waterway for their jobs, such as farming, fishing, shipping, or recreation?
d) What technologies have people developed to solve water problems in your area (like drilling wells, building dams, locks, and fish ladders, different kinds of irrigation, or technologies to conserve water or prevent pollution?)

Informational Texts

- *ABQ Journal* article. "Deal Allows Farmers to Sell Irrigation Water" http://www.abqjournal.com/221194/news/deal-allows-farmers-to-sell-irrigation-water.html
- *National Geographic* article. "Parched: A New Dust Bowl Forms in the Heartland" http://news.nationalgeographic.com/news/2014/05/140516-dust-bowl-drought-oklahoma-panhandle-food/

Classroom Activity – Flexible! Just do as much as you want, and feel free to substitute other activities.

1. Research the major commercial use(s) of your river/waterway (such as agricultural **irrigation**, shipping/transportation, electricity, fisheries and/or recreation) and invite a guest speaker to present, or find an activity that relates. In New Mexico, the only major commercial use of the Rio Grande is agriculture – 80% of the water goes to irrigation!
2. Discuss how these commercial uses influenced the location/history of your community, and how these users can also help a community conserve water and keep water clean (such as conserving water when irrigating, controlling **erosion**, keeping boat engines in good repair).
3. Discuss how people have developed technological solutions to solve water problems. For example, many ancient settlements in the West were abandoned because of lack of water, but irrigation technology has made it easier to survive. Dams have made it easier to control the flow of rivers, reservoirs store water, and fish ladders are built so that dams don't prevent their migration. High-efficiency toilets and other appliances help conserve water.
4. In NM, discuss the **acequia** system which was put in place by the Pueblo people and early Spanish settlers. Watch one of the YouTube videos if possible (see links below) or read the *Albuquerque Journal* article about water rights (see link above).
5. Show students the USGS poster - *Navigation: Traveling the Water Highways* (the poster can be shown on a smartboard - see link below, and a printable copy of the activity is on the RiverXchange Curriculum Page). Discuss how some communities use their river for transportation, while New Mexico rivers are used mainly for agricultural irrigation. New Mexico students may not be familiar with **dams, locks** and boats traveling on the river. If your river is used for transportation, you may want to do the *River Profile* activity on the back of the poster.
6. ***Optional: Water Ripples games*** (see link below). Review ways our society uses water, particularly in agriculture.
7. ***Optional: Water Rights.*** Using the *Pass the Jug* activity guide (see link below), act out the two different methods of assigning water rights to all the water users. Discuss the difference between the Riparian Rights and Prior Appropriation doctrines. Research the history of water rights in your community and compare the

differences in water rights issues with your partners' area. Prior Appropriation is used in the western states, which receive far less precipitation. Revisit the *Precipitation Map* and discuss why this makes a difference. Read about farmers being allowed to sell their water rights to allow more water for the ecosystem.

Materials

- USGS poster - *Navigation: Traveling the Water Highways.* The poster is available at http://water.usgs.gov/outreach/Posters/navigation/grade.html, and a printable copy of the activity is on the RiverXchange Curriculum Page.
- ***Optional: Water Ripples games.***
  http://aces.nmsu.edu/ces/watertaskforce/water%20ripples%20gameshow%20quiz/index.html
- ***Optional: Water Rights***
  - Prior Appropriation Game
    http://www.troutintheclassroom.org/sites/www.troutintheclassroom.org/files/documents/PriorAppropriationGame.doc
  - *Precipitation Map*: http://www.wrcc.dri.edu/pcpn/us_precip.gif
  - *Ancient Irrigation* video: http://www.youtube.com/watch?v=RUv2Tz1ayTc
  - *Ditch Cleaning at Arroyo Hondo* video: http://www.youtube.com/watch?v=YvqxdbsEObU

Vocabulary

- **Irrigation:** Watering crops. When natural precipitation is not enough for crops, farmers use flood irrigation (common in New Mexico), drip irrigation and/or overhead sprinklers.
- **Acequia:** An irrigation ditch used to distribute water from rivers to farms. Most are simple ditches with dirt banks, but they can be lined with concrete. An important form of irrigation in the development of agriculture in the American Southwest.
- **Erosion:** The process in which a material (such as a river bank) is worn away by water or air, often due to the presence of abrasive particles in the stream.
- **Dam:** A barrier built across a river to hold water back; sometimes used to generate electricity.
- **Lock:** A chamber with gates that close off for raising and lowering boats on a river or canal.

Project 6: Drinking Water

For NM classes, this is presented by a guest speaker from the water utility. For partner classes, we encourage you to see if your local utility can send someone to present.

Student Assignments

Write a *persuasive* paragraph (or create another type of project) explaining why it is important to conserve water, and what we should do.

Informational Texts

- Santa Fe drinking water article (a printable copy is on the RiverXchange Curriculum Page)
- Albuquerque drinking water article (a printable copy is on the RiverXchange Curriculum Page)
- *LA Times* article. "Americans use twice as much water as they think they do, study says" http://www.latimes.com/science/sciencenow/la-americans-underestimate-personal-water-usage-study-says-20140227-story.html#axzz2v99eazt7
- *A Long Walk to Water*, by Linda Sue Park (2010: Clarion Books, 128 pages)
- "How Does Water Use in the United States Compare to That in Africa?" https://www.awf.org/blog/how-does-water-use-united-states-compare-africa

Classroom Activity – Flexible! Just do as much as you want, and feel free to substitute other activities.

1. Discuss the *Indoor Water Use* graph (see link below), emphasizing that all of these activities use clean **drinking water.** Explain that in homes and other buildings there is one set of pipes that bring clean drinking water into the home and a different set of pipes that takes the dirty water away. Be sure to mention that in many parts of the country (like in NM) people use almost as much for watering plants outdoors as all their indoor water use combined. Discuss how **xeriscape** and watering during the coolest part of the day can help.
2. Schedule a guest speaker to present on where your drinking water comes from, how it is treated to make it safe for drinking, and/or ways to conserve water. **OR** research where your drinking water comes from, and do *The Value of Water* activity from the back of the USGS poster - *Water: The Resource That Gets Used & Used & Used For Everything* (the poster can be shown on a smartboard - see link below, and a printable copy of the activity is on the RiverXchange Curriculum Page). Students will examine their water use by using play money to record their daily usage, then brainstorm how to **conserve**. For a math-based extension activity, you can graph the data as a class to build data analysis skills.
3. Discuss how flooding or drought can affect your community's drinking water. Look for articles in your local paper, or read one of the suggested articles (see links above).
4. ***Optional: Water Footprint.*** Calculate your impact using an online tool (see link below).
5. ***Optional: Water Use in Other Countries.*** To learn more about water use in other countries, read the article about water use in Africa (see link above), invite a guest speaker from Water for People (see link below) and/or watch the *Water for Life* video, and/or read the book *A Long Walk to Water*, by Linda Sue Park. Compare average indoor water use in the U.S. to that in other nations.
6. ***Optional: The Water-Energy Connection.*** Show students the *Power Couple* video and/or water-energy posters to learn about the connection between electricity and water use, then do the activity (see links below.).

Materials

- *Indoor Water Use Graph* http://www.epa.gov/WaterSense/pubs/indoor.html
- USGS Poster – *Water: The Resource That Gets Used & Used & Used For Everything.* The poster is available at http://water.usgs.gov/outreach/Posters/water_use/grade.html, printable copy of the activity is on the RiverXchange Curriculum Page.
- ***Optional: Water Footprint Calculator***
  - http://environment.nationalgeographic.com/environment/freshwater/change-the-course/water-footprint-calculator/

- ***Optional: Water Use in Other Countries***
    - Find a guest speaker from your local Water for People Committee: http://www.waterforpeople.org/take-action/volunteer
    - OR *Water for Life* video: http://www.archive.org/details/Unworks-MTV-WFL
- ***Optional: The Water-Energy Connection***
    - *Power Couple: The Shocking True Story of Water and Electricity* video, with viewers' guide and posters. http://www.abcwua.org/education/Energy_Water_Nexus.html
    - *Understanding the Energy Demand of Bottled Water.* http://www.earthday.org/sites/default/files/3.%20Understanding%20the%20Energy%20Demand%20of%20Bottled%20Water_5-8%20Lesson%20Plan.pdf

Vocabulary

- **Drinking water:** Water that has been purified to standards set for human consumption.
- **Xeriscape:** The use of low water use plants in landscape (*not* "zeroscape".) *Xeros* is Greek for "dry."
- **Conserve:** To use something wisely; not wasting.
- **La Niña:** An irregularly occurring movement of deep cold water to the ocean surface along the western coast of South America that brings less precipitation to the southern U.S. and more to the northern U.S.
- **El Niño:** An irregularly occurring flow of unusually warm surface water along the western coast of South America that brings more precipitation to the southern U.S. and less to the northern U.S.

Project 7: Groundwater

Student Assignment

How are groundwater and surface water connected? Write a *RACE* paragraph, or create another type of project, using what you learned from the aquifer model.

Informational Texts

- *ABQ Journal* article. "State: Kirtland Jet Fuel Leak Massive" http://www.abqjournal.com/upfront/042254588838upfront05-04-10.htm
- *ABQ Journal* article. "KAFB Ramps Up Fuel Spill Cleanup" http://www.abqjournal.com/161358/news/kafb-ramps-up-fuel-spill-cleanup.html
- *LA Times* article. "Groundwater contamination a growing problem in L.A. County wells" *http://www.latimes.com/visuals/graphics/la-me-g-drought-wells-20150520-htmlstory.html*

Classroom Activity – Flexible! Just do as much as you want, and feel free to substitute other activities.

1. Watch *The Story of Groundwater* video (see link below) to learn the difference between **groundwater** and **surface water.**
2. Show students the *Major U.S. Aquifers* map (see link below) and locate your **aquifer.**
3. Do the activity *Recharge-Discharge* from the back of the USGS poster – *Groundwater: The Hidden Resource* (the poster can be shown on a smartboard – see link below, and a printable copy of the activity is on the RiverXchange Curriculum Page). Students build a simple aquifer model to learn about the **water table**, how a **well** works, and how groundwater and surface water are connected. Discuss how if we pump too much of surface water it can deplete groundwater, and vice versa. Also, if one person pumps too much groundwater from their well, it can affect their neighbors' wells.
4. Leaking underground tanks (such as septic tanks or gas tanks beneath gas stations) are a major source of groundwater pollution. This can be demonstrated using small plastic cups with holes poked in the bottom. Sink a cup into the gravel of the model and fill it with colored water to see how pollution spreads through groundwater. Note that contaminated groundwater can pollute surface water and vice versa.
5. Read articles from the Albuquerque Journal about a jet fuel leak from Kirtland Air Force Base (see links above) or find articles about similar issues in your area. Discuss what types of pollution can get into groundwater and what can't. Solids such as trash and dog poop on the earth's surface cannot travel down to the aquifer. Dissolved chemicals, heavy metals, and very large amounts of farm animal waste can, however.
6. Read the resources about groundwater from the Groundwater Foundation (see links below). Review the *Top Ten Ways to Protect Our Precious Water* handout (in teacher packet). Brainstorm other ways to prevent groundwater pollution.

Materials

- *The Story of Groundwater* video. https://archive.org/details/Groundwater_Animation
- *Major U.S. Aquifers* map: http://pubs.usgs.gov/ha/ha730/ch_a/gif/A004_us.gif
- *Top Ten Ways to Protect Our Precious Water* handout (in teacher packet)
- USGS poster – *Groundwater: The Hidden Resource.* The poster is available at http://water.usgs.gov/outreach/Posters/groundwater/grade.html and a printable copy of the activity is on the RiverXchange Curriculum Page.
- Supplies:
    - Several clear baking pans or plastic containers
    - Gravel to fill containers 2/3 full
    - Several pump tops from soft-soap or hand-lotion containers
    - Paper cups with holes punched in the bottom to sprinkle water
    - Colored drink powder

- *The Groundwater Foundation* - Uses of groundwater including chart http://www.groundwater.org/get-informed/basics/groundwater.html
- *The Groundwater Foundation* - Contamination http://www.groundwater.org/get-informed/groundwater/contamination.html

Vocabulary

- **Aquifer:** A wet underground layer of water-bearing rock or materials (gravel, sand, silt or clay) from which groundwater can be extracted using a well.
- **Groundwater:** Water located beneath the earth's surface in cracks between soil particles and fractures in rock formations. A large and usable quantity of groundwater is called an aquifer.
- **Surface water:** Water collected on the ground or in a waterbody such as a stream, river, lake, wetland or ocean.
- **Water table:** The top surface of an aquifer (how far you have to dig down to find water).
- **Well:** A man-made hole with a pipe that goes down to the water table. A pump helps bring the groundwater up.

Project 8: Wastewater

For NM classes, this is presented by a guest speaker from the water utility. For partner classes, we encourage you to see if your local utility can send someone to present.

Student Assignment

Write a *narrative* or *creative* paragraph, or create another type of project, explaining the journey of your community's wastewater.

Informational Texts

- *KOAT* news. "Aging Pipes Mean Higher Water Bills" http://www.koat.com/news/aging-pipes-could-mean-water-bill-hike/34284754
- Combined sewer overflows article, by Anne Jefferson, a geology professor from Kent State. http://all-geo.org/highlyallochthonous/2013/03/combined-sewer-overflows-solving-a-19th-century-problem-in-the-21st-century/

Classroom Activity – Flexible! Just do as much as you want, and feel free to substitute other activities.

1. Invite a guest speaker to learn about where your community's **wastewater** goes, *OR* if your community has a municipal sewer system, do the activity *Where Does Your Used Water Go?* on the back of the USGS poster - *How Do We Treat Our Wastewater?* (the poster can be shown on a smartboard – see link below; printable copy is on the RiverXchange Curriculum Page).
2. Read the article about Albuquerque's crumbling sewer infrastructure, and/or the article about combined sewer overflows (see links above), or find news articles about issues in your area. If possible, you may want to watch the YouTube video, *A Drop's Life*, about combined sewer overflows in the Washington, DC water system.
3. Show students the *Septic System* poster (the poster can be shown on a smartboard, and a printable copy is on the RiverXchange Curriculum Page) and explain the difference between a **sewer system** and a **septic system** – they both treat wastewater essentially the same way, but a septic tank is right by the house and uses a drainfield in rural areas. If desired, watch the *Dirty Jobs* video (see link below). If your community has mostly septic systems, discuss how important it is to have the tanks pumped out regularly to avoid groundwater pollution.
4. Discuss what kinds of things NOT to put down the drain or toilet – for example, fats, oils, and grease can solidify in pipes and cause a backup. Discuss how treated wastewater is recycled in many communities (such as watering golf courses), and how a community's treated wastewater will be used by downstream communities.
5. Review the differences between **stormwater, drinking water,** and **wastewater,** emphasizing how different sets of pipes are involved, and that the "quality" of the water being transported is very different.

Materials

- USGS poster - *How Do We Treat Our Wastewater?* The poster is available at http://water.usgs.gov/outreach/Posters/wastewater/grade.html, and a printable copy of the activity is on the RiverXchange Curriculum Page.
- Supplies:
  - 14 feet of yarn, string or rope
  - Shredded paper or packing peanuts and a cardboard box
- *Septic System* poster (on the RiverXchange Curriculum Page).
- Combined Sewer Overflow video: *A Drop's Life.* Applies to certain cities only, mostly in the eastern US, find out if your city has this type of system. https://www.youtube.com/watch?v=5Ug1hravb9Q
- *Dirty Jobs: Septic Tank Technician* video **(Caution – this video has one bad word at 1:16)** http://home.howstuffworks.com/home-improvement/plumbing/sewer2.htm

Vocabulary

- **Wastewater:** All the water that goes down a drain into a municipal sewer system or septic system. Also known as sewage.
- **Sewer system:** A system of underground pipes used to transport human waste. In some communities, the sewer system is combined with the storm system (known as a combined sewer).
- **Septic system:** A small-scale sewage treatment system common in areas with no connection to a municipal wastewater system. A septic tank is a key component of a septic system.
- **Stormwater:** Runoff from a storm which either flows directly into a water body or is channeled into storm drains, which eventually discharge to surface waters.
- **Drinking water:** Water that has been purified to standards set for human consumption.

Unit 3: River Ecosystem Field Trip

Project 9: Field Trip

Student Assignment

Write a *narrative* paragraph or a *friendly letter* to your partners, or create another type of project, about your field trip:

a) If you tested the water, explain why we collect water quality data and what it means.

b) If you planted trees or did another service learning project, explain how your project will help the river ecosystem.

Informational Texts

- *A Waterproof Case* (in teacher packet)
- *The Water Down Under* booklet (in teacher packet)
- Local ecosystem articles (These are for NM - teachers in other areas should search local newspapers for articles about their own ecosystem).
    - *ABQ Journal* article. "Battle with Beavers" http://www.abqjournal.com/45685/north/battle-with-beavers.html
    - *Santa Fe New Mexican* article. "Crews complete restoration project at Buckman recreation area" http://www.santafenewmexican.com/news/local_news/crews-complete-restoration-project-at-buckman-recreation-area/article_284dd705-05e8-59bb-8585-f00934e93516.html
    - *The Washington Times* article. "NM water release aims to help silvery minnow" http://www.washingtontimes.com/news/2014/may/6/water-release-aims-to-help-silvery-minnow/?page=all

Pre-Field Trip Activities

1. Define an **ecosystem** (the physical environment together with all the species that live there). Discuss how living things depend on the nonliving things, such as water, air, soil/rocks, and the sun.
2. Read *The Water Down Under* booklet to learn more about macroinvertebrates and water quality. Discuss the role of **aquatic macroinvertebrates** in the **food web** and what they can tell us about the health of our ecosystem. Many animals depend on them for food. Some aquatic macroinvertebrates are sensitive to pollution, so one way scientists can tell how healthy a river ecosystem is by looking at which types of macroinvertebrates are living in the water. Many spend only part of their lives in the water, so if the water is polluted, it has far-reaching effects on the ecosystem. Discuss **producers, consumers** and **decomposers**, and where aquatic macroinvertebrates fit (some are consumers, some are decomposers).
3. Talk about the field trip and location, and what students can expect.
4. ***Optional: Frogline News***. Watch a newscast by frogs (see link below) to revisit how pollution gets into surface water. Discuss the significance of frogs (i.e., the frog is a biological **indicator species** because it is very sensitive to water pollution). Remind students of the watershed model and how they can prevent nonpoint-source pollution.
5. ***Optional: Acid Rain***. Watch the video *How Acid Rain Works* (see link below).

Field Trip

1. **For New Mexico Classes:** Field trips may include a service learning project, such as tree planting or an agricultural activity. Otherwise, they will incorporate hands-on lessons about **riparian areas**, wetlands, macroinvertebrates and water quality, and students will use a field journal. On the field trip, students will gather data about pH, temperature, turbidity and dissolved oxygen.
2. **For Partner Classes:** We strongly encourage you to take any water-related field trip available in your area, and we can help if you have trouble finding one.

Post-Field Trip Activity

1. Review how land use affects water quality and what the water quality data tells us about the ecosystem.
   - Increased river temperature can be caused by many things including low river flow, large areas of impermeable surfaces, lack of vegetation, and stormwater that is warm from flowing over roads.
   - High temperature and/or fertilizers (including pet waste) can cause algae bloom, which reduces dissolved oxygen.
   - Erosion or algae bloom can cause turbidity, leading to higher temperature.
   - Acid rain, mine drainage or algae bloom can cause low pH (normally pH is determined by the types of rocks or trees present in the watershed).
2. Read news articles about issues in your local ecosystem. A few articles for NM are provided (see links above).
3. ***Optional: River Food Web.*** Make a food web for your local ecosystem, identifying producers, consumers and decomposers, **native species** and **invasive species,** as well as local **endangered species**. Discuss how wildlife are "water users" too. Like humans, wildlife needs clean water to live, so as a community we must consider their needs when making choices about water. **NM Classes:** use Bosque plant and animal cards to do *The Web* activity (a printable copy is on the RiverXchange Curriculum Page), discussing how all living things depend on each other. **For Partner Classes**: *The Web* activity can be applied to any ecosystem and is a fun way to get kids thinking "on their feet".

Materials

Pre-Field Trip Activities:

- *Frogline News* video: http://www.dailymotion.com/video/x2qhkrw
- ***Optional: Acid Rain.*** *How Acid Rain Works* video, http://science.howstuffworks.com/nature/climate-weather/atmospheric/acid-rain.htm

Field Trip:

- *Macroinvertebrate Data Sheets* (if desired, printable copies are on the RiverXchange Curriculum Page).

Post-Field Trip Activities:

- *World Water Monitoring Challenge* website http://worldwatermonitoringchallenge.com/
- ***Optional: The Web*** food web activity (a printable copy is on the RiverXchange Curriculum Page).

Vocabulary

- **Ecosystem:** All the living and nonliving things that interact in a particular place.
- **Bosque:** A Spanish word for woodlands, it refers to the riparian areas of stream and river banks in the southwestern US.
- **pH:** A measure of the acidity or alkalinity of water (or a solution) on a scale that ranges from 0 (extremely acidic) to 14 (extremely alkaline). Pure water has a pH of 7 (neutral).
- **Turbidity:** A measure of water clarity based on the amount of particles suspended in it.
- **Dissolved oxygen:** The concentration of oxygen dissolved in water, expressed in milligrams per liter or as a percent saturation.
- **Riparian area:** The area around the banks of a natural body of fresh water, where the vegetation and landscape is directly influenced by that water.
- **Aquatic macroinvertebrates:** Animals that have no backbone, are visible with the naked eye, and spend all or part of their life in water. This diverse group includes worms, mollusks, arachnids, crustaceans, and insects.
- **Food web:** A representation of the predator-prey relationships between species within an ecosystem.
- **Producers:** Organisms, generally plants, that make their own food (using only the sun's energy, water, and inorganic compounds), and are the foundation of the food chain.
- **Consumers:** Organisms that obtain nutrients by eating other organisms (such as plants or other animals).
- **Decomposers:** Organisms (such as bacteria, fungi, other plants and animals) that break down the remains of dead organisms, releasing the substances that can be used by other members of the ecosystem.
- **Native species:** A species that naturally occurs in a particular ecosystem.

- **Invasive species:** A plant or animal introduced from a different area that competes with native species that is taking over an area.
- **Endangered species:** A plant or animal species existing in such small numbers that it is in danger of becoming extinct (dying out completely).

Appendix 2

Extension Questions and Activities

Field Trip:

Extension Activities:

- Write a *narrative* paragraph or a *friendly letter* to your partners, or create another type of project, about your field trip: Explain how your project will help the river ecosystem and what you learned. Describe what was difficult for you on the field trip and what was enjoyable.

- Make a food web for your local ecosystem, identifying producers, consumers and decomposers, native species and invasive species, as well as local endangered species . Discuss how wildlife are "water users" too. Like humans, wildlife needs clean water to live, so as a community we must consider their needs when making choices about water. Use Bosque plant and animal cards to do *The Web* activity (a printable copy is on the RiverXchange Curriculum Page), discussing how all living things depend on each other.

- Learn about The STRAW Project. An ongoing watershed restoration project first inspired by 4th graders in 1992, based in Marin Co. California! Add it to your school's library and show the documentary in class. http://www.pointblue.org/our-science-and-services/conservation-science/conservation-training/straw-program or read about the project in this article and discuss: http://www.marinij.com/article/NO/20150325/NEWS/150329872

Reflection Questions:

- What did you learn about the history of the Rio Grande River and the floodplain we planted in? How does this history impact the future of cottonwoods in the area?
- Identify some common invasive species. Where did they come from and how are they impacting the Bosque?
- What is the process of planting cottonwoods and willows and why do we do it in the wintertime?
- After this field trip, how may you see and understand the Bosque differently?
- What did you most enjoy being down in the Bosque?
- How can you apply what you learned or enjoyed on your field trip in your everyday life?

Stormwater:

Extension Activities:

For a math extension activity try the "Does it Soak Right In?" lesson

"Don't Trash Our Rio!" is another great extension activity for this presentation. That activity sheet can be found in your RX welcome folder.

You can also review the "Top Ten Ways To Protect Our Precious Water" handout in your teacher packet or within the Project 2 section on the curriculum webpage.

Here you can zoom in and explore your watershed and the watershed that family and friends live in, perhaps even your RiverXchange partners who live outside of New Mexico!:

Interactive Topographical Watershed Map of Earth

Reflection Questions:

- What is stormwater and where does your community's stormwater go?
- What did you learn about stormwater that was surprising to you?
- How does what happens in your yard or your neighbor's yard impact the watershed?
- What have you noticed about stormwater in your own neighborhood? What are things you can do to clean up stormwater?
- How can surface water become polluted?
- What's happens when rain falls on a pervious surface compared to an impervious surface? Give examples of impervious surfaces.
- How are groundwater and surface water connected?
- What are ways you can minimize stormwater pollution?
- What role do forests and wetlands play in a watershed?

Wastewater:

Extension Activities:

Through the ABQ Water Utility Authority's website you can navigate virtually through Albuquerque's wastewater system: http://www.abcwua.org/Education/SWRP_home.html or the overall water system:http://www.abcwua.org/education/el_WSD_2.html
Want to add a project-based learning component to this exercise? Use these questions and activities to go along with your tour:
http://www.abcwua.org/education/educators_WSDcur2_quest.html
Maybe even create a PSA with your class inspired by all you've learned!

Discuss what kinds of things NOT to put down the drain or toilet – for example, fats, oils, and grease can solidify in pipes and cause a backup. Discuss how treated wastewater is recycled in many communities (such as watering golf courses), and how a community's treated wastewater will be used by downstream communities.

Watch one of these videos in class to review the process of wastewater and what students can do to take care of wastewater:
-https://www.youtube.com/watch?v=Ldz29NqwK78 (An animation narrated by a young student)
-https://www.youtube.com/watch?v=tuYB8nMFxQA (A video on the water treatment process created by New Jersey American Water)

Reflection Questions:

- What is wastewater and how does it impact your community?
- What is the difference between wastewater, stormwater and drinking water?
- How can you use what you've learned to make a difference at home and at school?
- What is the process of treating wastewater in your community?
- What surprised you about the process of treating wastewater from the presentation?
- Since our wastewater gets cleaned and recycled at the wastewater treatment plant, why is it important to do what we can to keep it clean before it arrives there?

Drinking Water:

Extension Activities:

-Create a filter in class to clean contaminated water and investigate your findings with this lesson. This can be done over the course of a few days in class or you can demonstrate how a filter works with our class in a shorter lesson.: http://seplessons.ucsf.edu/node/1754

-A short article and video comparing the average consumption of water per day per person in Africa compared to in the U.S.
https://www.awf.org/blog/how-does-water-use-united-states-compare-africa

-A great lesson, learning about the issue of water scarcity and importance of conservation. Students log their personal use of and observation of water use over two days. Students can discuss their findings and talk about what would happen if water scarcity were an issue. There is also a TRUE/FALSE game to learn about water and how it impacts the human body and communities. https://thewaterproject.org/resources/WaterLogs_5to8.pdf

Reflection Questions:

- Where does your drinking water come from and what communities rely on it?
- Drinking water is used for much more than bathing, flushing toilets and drinking. What are other ways you and your community use drinking water? Did you learn anything surprising about how we use drinking water, if so - what?
- What percentage of the Earth is covered in water? Out of that amount, how much is accessible fresh water? How much is available as drinking water and why is it important to conserve it?
- One-third of the world's population does not have access to clean drinking water. How would your life be different if you had to walk miles to bring back water to your family?

Agriculture:

Extension Activities:

To explore more about the Dust Bowl with your students:
http://www.pbs.org/kenburns/dustbowl/educators/overview/

Out of the Dust- Karen Hesse (This book is in the voice of 14 year old Billie Jo. She narrates her struggle to help her family in the years of the Depression from the Dust Bowl. Takes place in Oklahoma, written as a poem. This book helped me fall in love with reading when I was in 5th grade!)

Extension activity: Interview a grandparent or an adult friend who knows about the Depression through personal experience or through stories told by their parents and relatives. Share with class members.

Soil is Not Trivial lesson plan

Reflection Questions:

- What was the Dust Bowl and how did it impact people?
- What do you think are the major agricultural lessons for us from the Dust Bowl?
- How may we be able to prevent a dust bowl from occurring?
- What is important for farmers to consider when planning how to irrigate their farm and why?
- How does agriculture relate to water and to our daily lives?
- What did you discover in your planting activity about the different types of irrigation?

Appendix 3

Photos

Exhibit 4
B.E.M.P. 2017-2018

The University of New Mexico
Department of Biology
MSC03 2020
Albuquerque, NM 87131
505.277.0758

BEMP
Bosque Ecosystem Monitoring Program

BOSQUE SCHOOL
scholarship • community • integrity
BEMP Education Office
4000 Bosque School Road NW
Albuquerque, NM 87120
505.898.6388

Bosque Ecosystem Monitoring Program (BEMP)
2017-2018 Stormwater Science Education Overview

The main objective of the *Stormwater Science* outreach education program is to teach students that the health of the Rio Grande is directly correlated to the health of the surrounding watershed. BEMP educators have developed a *Stormwater Science* program that includes a 90-minute classroom activity, a four- to five-hour study trip to the Rio Grande, and an optional water chemistry lab during which students gain an understanding of the complex system. **During the 2017-2018 school-year 2247 students participated in *Stormwater Science*** activities in their classrooms, in the field or both. The classroom program was delivered to **1517 students** in **30 classrooms** at **19 different schools** in **Rio Rancho, Albuquerque, and Belen.**

The *Stormwater Science* program targets middle school and high school students using two main formats: an indoor classroom lesson and an outdoor field experience or "study trip."
The principal objective for the classroom portion of the program is to demonstrate how some of our daily (individual) actions impact the health of the Rio Grande. To reach that goal, students construct a model of the Rio Grande Watershed (see Page 6) under different scenarios. The model watershed has five different communities along the river: a cattle ranch, up-and-downstream eco-friendly towns, an urban city, and agricultural fields. Students add different „runoff cards" to the river downstream of the community where the runoff constituents originate. Some of the runoff is naturally occurring (e.g. turbidity) while other is human caused (e.g. pesticides or oil). The model runs through two different scenarios: (1) a *before-the-storm* and (2) an *after-the-storm*. These two versions of a watershed demonstrate the harmful effects storm water contamination can have on aquatic organisms and downstream communities.
At a broader scale, the classroom program encourages students to be reflective about their daily behaviors and to think about ways they can help keep their watershed clean. Students are asked to brainstorm ways they can help improve watershed health before educators lead a discussion on watershed stewardship that aligns with the MRGSQT educational messaging. Further, in order to reach students that identify Spanish as their first language and better capture New Mexico"s students diversity, the handout for this activity is available to students in both English and Spanish (classroom handout is included on page 4of this document).

The main goal for the study trip is to build upon the themes of the classroom presentation and to provide a hands-on experience in water quality testing at the river. This section consists in a four to five hour trip to the Rio Grande during which students investigate how stormwater moves through the city and what it carries with it. Further, students get to collect and interpret water quality data to better understand the subject. The program starts with an arroyo survey which examines and categorizes the amount of visible pollutants (e.g. plastics, paper, dog poop, animal

scat, etc.) in the San Antonio arroyo in Albuquerque, which drains to bosque. In the arroyo, students survey for several types of litter and test water quality using a LaMotte water quality monitoring kit (see Page 6). When the students arrive at the bank of the Rio Grande, they do additional water quality testing and search for macro-invertebrates. Students then collectively share their results, compare them to results they gathered in the arroyo, and discuss what the data could mean in terms of river health. This section of the curriculum allows students to have a more hands-on learning experience.

One of the challenges for middle and high school participation in programs like Stormwater Science is that teachers are only able to bring a subset of students into the field, while the rest remain at school with a substitute teacher. In order to reach more middle and high school students and provide another educational opportunity outside of the classroom, BEMP has offered a water chemistry lab during the 2016-2017 and 2017-2018 school-years. As an alternative to the conventional study trip, BEMP hoped the lab would accommodate some of the teachers" restrictions and provide an opportunity for hands on water testing. Very few teachers chose the lab option and generally expressed more interest in the study trip. In the future, BEMP does not plan to offer at water chemistry lab option to teachers except by special request.

During the 2017 fall semester, BEMP developed a new *Watershed Ecology* activity to use at events like our end of year Student Congress. This new activity follows the teaching objectives of *Stormwater Science*, but students collect data in a made up watershed to discover how runoff affects life in the river. Educators piloted the activity at the 2017 Rio Rancho Children"s Water Festival and plan to use it at similar events in the future.

Hundreds of students also took part in *Stormwater Science* related field activities at three BEMP events this year. The BEMP Student Congresses (approximately 250 students and 45 teachers and chaperones), where BEMP students had the chance to share their research and experiences in the bosque, including watershed health observations; BEMP"s Otter Day (approximately 200 students and 75 teachers and chaperones), an event for first graders, hosted by high school students to teach about endangered animals in New Mexico (see Page 7); BEMP also co-hosts the annual Sevilleta-Luquillo Virtual Symposium with Luquillo Long Term Ecological Research Site in Puerto Rico, where approximately 50 students from both sites present their research in Spanish. This year many of our Albuquerque students chose to present on the topic of watershed health. During June and July BEMP partners with Horizons Albuquerque, students learn about the many different ways in which scientists collect data about the environment, including water chemistry techniques in the Rio Grande and how their results are connected to storm events.

English Classroom Handout – Mid/High School

Hydrologist: _____ Date: _____

Stormwater Science

What 2 sources can New Mexicans get their drinking water from?

1. _____
2. _____

Where does water go after we use it?

_____

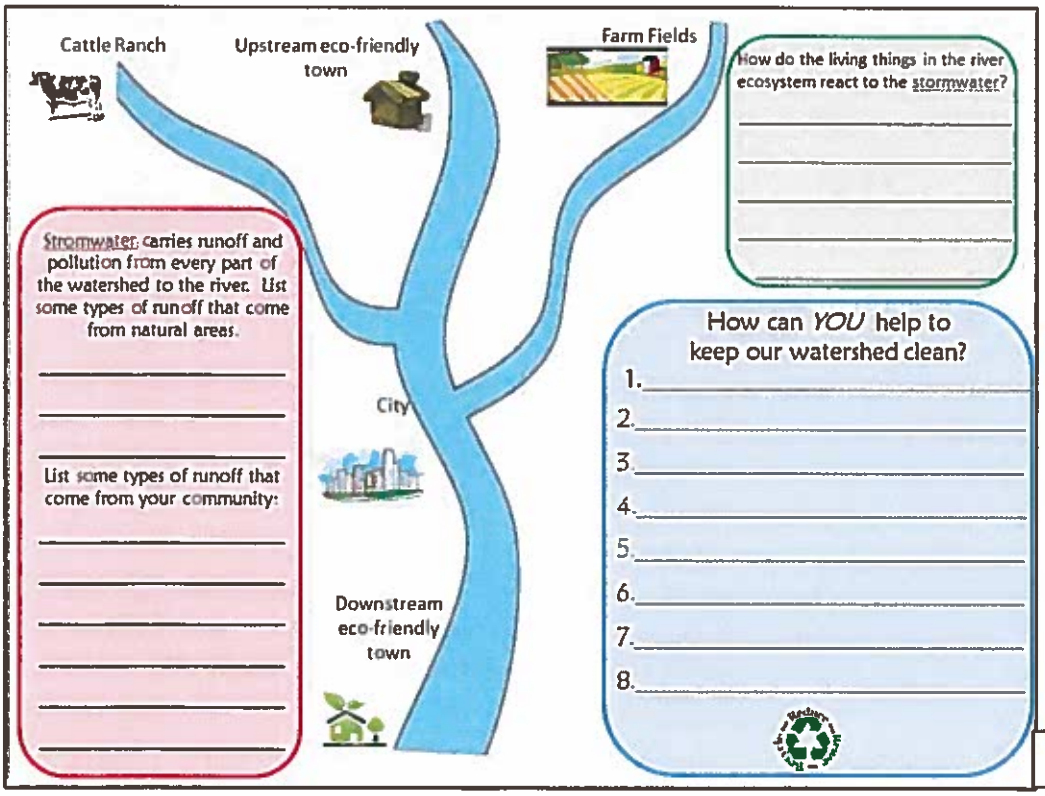
A ***watershed*** is an area of land where all of the water that falls on it, or that is under it, drains to the lowest point.

WHAT IS A WATERSHED?

Draw a line from the word to its definition

Turbidity	• A stream or arroyo that brings water to the main channel of the river
Nonpoint source pollution	• Types of nutrients found in fertilizers that can lead to excess algae growth
E. coli	• A single location where pollution is being leaked into the environment
Point source pollution	• A type of *bacteria* found in warm blooded animal's intestines that can make people sick
Nitrates and phosphates	• Tiny 'water bugs' whose species are an indication of water quality
Tributary	• *Any* type of pollution that comes from *many different* sources
Macro-invertebrates	• A measure of water clarity based on the amount of suspended solids

Page 1



Page 2

Spanish Classroom Handout – Mid/High School

Hidrólogo/a: _____ Fecha: _____

Ciencia detras una tormenta

Cuales son las dos fuentes de agua de donde los Nuevo Mexicanos sacan el agua para beber?

1. _____

2. _____

A donde va el agua despues de usarla?

_____

Una cuenca hidrografica es el territorio drenado por un unico rio, delimitado por montanas

Conecta las palabras con su definicion

Turbidez	♦ Corriente de agua que desemboca en un rio mayor o directamente al mar.
Contaminacion difusa	♦ Tipologia de nutrientes que se encuentran en los fertilizantes y que pueden causar crecimiento algal excesivo
E.coli	♦ Contaminacion de un solo origen
Contaminacion focal	♦ Tipologia de bacteria que se encuentra en el aparato digestivo de animales de sangre caliente. Cuando se ingiere, puede causar/traer enfermedad.
Nitratos y fosfatos	♦ Pequenos insectos aquaticos que pueden ser usados como indicadores de la calidad del agua.
Tributario o afluente	♦ Contaminacion de origen diverso
Macro-invertebrados	♦ Medida del grado de transparencia del agua que depende de la cantidad de particulas en suspension.

Page 1

Rancho ganadero

Comunidad ecológica río arriba

Campos agrícolas

Como reaccionan los elementos vivos del ecosistema de rivera a la escorrentía?

_____
_____
_____
_____
_____

La escorrentia de las aguas de tormenta contribuye a la acumulacion de contaminantes en el rio procedentes de diferentes partes de la cuenca hidrografica. Haz una lista de las difererentes variedades de escorrentia procedentes de areas naturales:

_____
_____
_____

Haz una lista de las difererentes variedades de escorrentia procedentes de tu comunidad:

_____
_____
_____

Ciudad

Comunidad ecológica río abajo

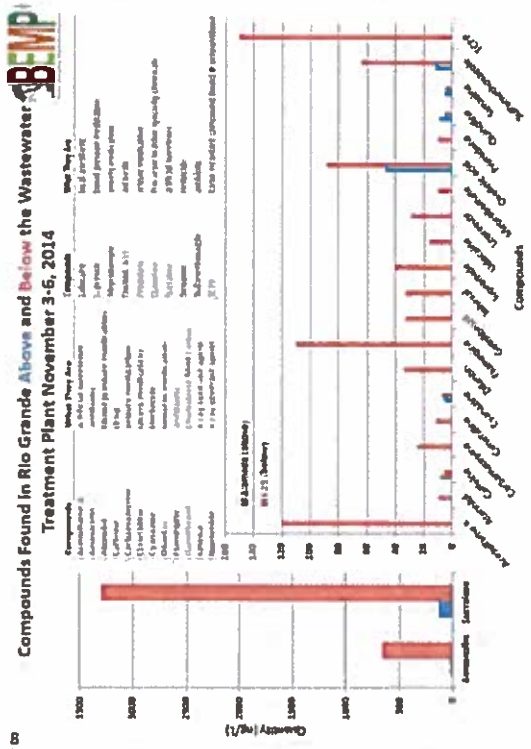
Cómo TU puedes ayudar a mantener la cuenca limpia?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

Page 2

Field Journal for outdoor study trips

Do you use any of these compounds?



Name:_____

Date:_____

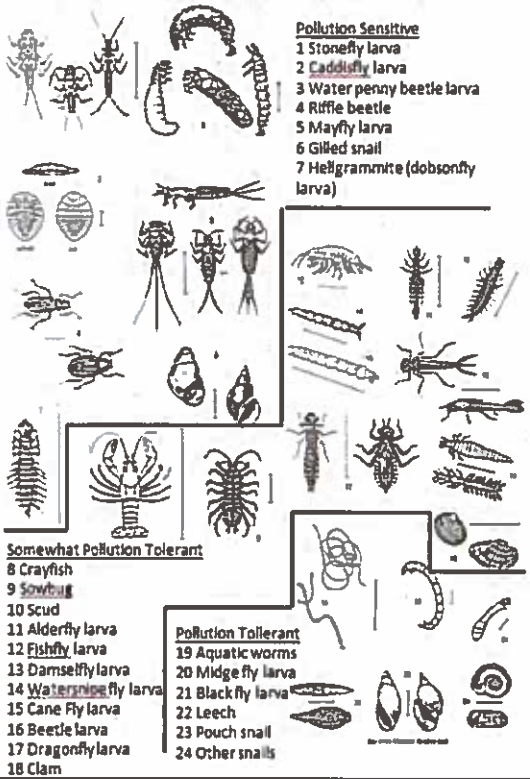
Stormwater Science

Field Journal

Bosque Ecosystem Monitoring Program

BEMP www.bemp.org

Macro-invertebrates: Ecosystem Indicators



Pollution Sensitive
1 Stonefly larva
2 Caddisfly larva
3 Water penny beetle larva
4 Riffle beetle
5 Mayfly larva
6 Gilled snail
7 Heligrammite (dobsonfly larva)

Somewhat Pollution Tolerant
8 Crayfish
9 Sowbug
10 Scud
11 Alderfly larva
12 Fishfly larva
13 Damselfly larva
14 Watersnipe fly larva
15 Cane Fly larva
16 Beetle larva
17 Dragonfly larva
18 Clam

Pollution Tolerant
19 Aquatic worms
20 Midge fly larva
21 Black fly larva
22 Leech
23 Pouch snail
24 Other snails

Litter Survey

The San Antonio Arroyo collects runoff from all over the west side of Albuquerque, anything on the streets can end up in the arroyo. Record the litter you find throughout the day here.

Litter type	Arroyo	Bosque
Plastic		
Paper		
Glass		
Metal		
Cigarette butts		
Dog poop		
Animal scat		
Evidence of chemicals		
Other trash		

Who is responsible?

Point source pollution- comes from a specific place

Non-point source pollution- comes from many places and people

3

2

Water Chemistry

	Arroyo	River
Temperature	°F / °C	°F / °C
Turbidity	JTU	JTU
Nitrate	ppm	ppm
Phosphate	ppm	ppm
pH		
Dissolved oxygen	ppm %	ppm %
E. coli	Present / Absent	Present / Absent

Temperature
8-12 °C- good
13-15 °C- fair
>15 °C- poor

Turbidity
Sources: erosion, fire
1-39 JTU- good
40-100 JTU- fair
>100 JTU- poor

Nitrates
Sources: plants, soil, fertilizer
1-4 ppm- good
5-20 ppm- fair
>20 ppm- poor

Phosphates
Sources: plants, fertilizer, plastic
1 ppm- good
2 ppm- fair
4ppm- poor

pH
1-strong acid- poor
6-weak acid- fair
7-neutral- good
8-weak base-fair
14-strong base-poor

Dissolved Oxygen
1 ppm or 80-100%- good
4 ppm or 40-60%- fair
8 ppm or 0-40%- poor

E. coli
Sources: animal waste
E.coli will always be present in small amounts. Large amounts are harmful to humans and animals

Overall river health: (circle one)

Good Fair Poor

7

How long will it take?

Every piece of trash has a face... where and WHO did it come from? It takes just a moment for an item to be carelessly discarded where it can be washed into a river or blown in by wind, but it can take many, many years for it to completely decompose. Test your knowledge about decomposition times below by drawing a line from the item to its decomposition time.

Banana peel	1 million years
Cigarette butt	600 years
Fishing line	450 years
Styrofoam cup	200 years
Milk carton	50 years
Plastic bottle	20 years
Aluminum can	5 years
Glass bottle	3 months
Plastic bag	4 weeks

Which of these things can be reused or recycled?

_____

_____

_____

4

Weather Report

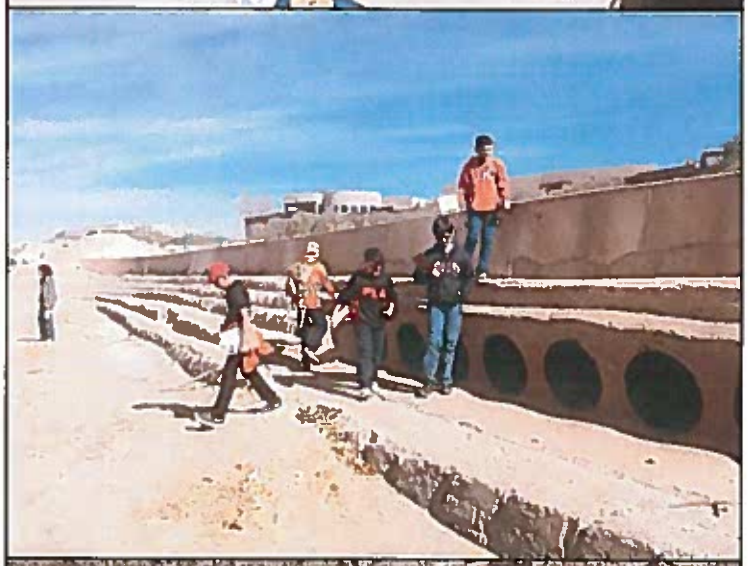
1. Time: _____ am or pm
2. Today's Weather:
3. Cloud Cover: _____%
4. Wind: Speed _____ Direction
   km/hr OR mph
5. Humidity: _____%
6. Temp: It feels like _____°F It actually is... _____°F

N W E S

Journal Space

5

Middle school students at Cien Aguas International School (top right). In the field middle school students look for evidence of pollution in San Antonio Arroyo (center right) and study water quality through macro-invertebrates (bottom right). 1st grade students complete a puzzle to find the "secret messages" about protecting river habitats at Otter Day (below)



2017-2018 Stormwater Science Education Outreach Numbers

Date	Teacher	School	City	# students in classroom	# students in Field or Lab	# adults	Grade	Activity	# Presen-tations	Hours	School Level
8/16/2017		Amy Biehl HS	Albuquerque		18	2	9th	Study trip	1	1	HS
9/13/2017		Amy Biehl HS	Albuquerque		24	2	9th	Study trip	1	1	HS
10/6/2017	Sondra Lawson	Garfield STEM Middle School	Albuquerque		25	2	6th	Study trip	1	4	MS
10/23/2017		Rio Rancho Water Festival	Rio Rancho	149		28	4th	Event	6	3	ES
10/24/2017		Rio Rancho Water Festival	Rio Rancho	130		25	4th	Event	6	3	ES
11/1/2017		Amy Biehl HS	Albuquerque		24	2	9th	Study trip	1	1	HS
11/6/2017	Velia Raff	Cien Aguas International School	Albuquerque	60		2	6th	Classroom	2	2	MS
11/17/2017	Sondra Lawson	Garfield STEM Middle School	Albuquerque	85		1	6th + 7th	Classroom	3	3	MS
11/29/2017		Amy Biehl HS	Albuquerque		20	2	9th	Study trip	1	1	HS
12/4/2017	Selena Shepherd	Monte Vista Elementary	Albuquerque	25		1	5th	Classroom	1	1.5	ES
12/4/2017	Lisa Vargas	Monte Vista Elementary	Albuquerque	30		2	5th	Classroom	1	1.5	ES
12/4/2017	J. Romero, B. Delanoy	San Felipe de Neri	Albuquerque	24		1	5th	Classroom	1	1.5	ES
12/7/2017	J. Romero, B. Delanoy	San Felipe de Neri	Albuquerque		24	5	5th	Study trip	1	4	ES
12/8/2017	Selena Shepherd	Monte Vista Elementary	Albuquerque		25	2	5th	Lab	1	1.5	ES
12/8/2017	Lisa Vargas	Monte Vista Elementary	Albuquerque		30	2	5th	Lab	1	1.5	ES
12/8/2017	Larissa	Monte Vista Elementary	Albuquerque	30		2	5th	Classroom	1	1.5	ES
12/6-14/2017	Kari Daniels	Bosque School	Albuquerque	85		1	8th	Classroom	4	6	MS
1/10/2018	Alicia Ruch-Flynn	Albuquerque Institute of Math and Science	Albuquerque	50		1	7th	Classroom	2	3	MS
1/10/2018	Beverly Miller	Albuquerque Institute of Math and Science	Albuquerque	25		1	7th	Classroom	1	1.5	MS
1/31/2018	Jennifer Moss	Tony Hillerman Middle School	Albuquerque	20		1	7th/8th	Classroom	1	1.5	MS
2/6/2018	Suzy Dunnam	Jefferson Middle School	Albuquerque	75		1	7th	Classroom	5	5	MS
2/6/2018	Kathleen Nubar	The international School at Mesa del Sol	Albuquerque	25		1	8th/9th	Classroom	2	2	MS
2/8/2018	Kathleen Nubar	The international School at Mesa del Sol	Albuquerque		20	2	8th/9th	Study Trip	1	4	MS
2/12/2018	Elizabeth Landsford	Bandelier Elementary	Albuquerque	25		1	3rd	Classroom	1	1	ES
2/12/2018	Susan Fuller	Bandelier Elementary	Albuquerque	25		1	3rd	Classroom	1	1	ES

2/12/2018	Sarah Campbell	Bandelier Elementary	Albuquerque	26		2	3rd	Classroom	1	1	ES
2/12/2018	Lea Lahasa	Bandelier Elementary	Albuquerque	26		2	3rd	Classroom	1	1	ES
2/13/2018	Mary Erwin	Wilson Middle School	Albuquerque	145		1	6th	Classroom	5	5	MS
3/6/2018	Katelin Fischer	Ace Leadership High School	Albuquerque	15		1	10th	Classroom	1	1.5	HS
3/15/2018	Katelin Fischer	Ace Leadership High School	Albuquerque		15	2	10th	Study trip	1	4	HS
4/2/2018	Ashley Webb	Dolores Gonzales Elementary	Albuquerque	25		1	4th	Classroom	1	1	ES
4/2/2018	Carmen Lopez-Gaston	Dolores Gonzales Elementary	Albuquerque	18		1	4th	Classroom	1	1	ES
4/2/2018	Hilda Alvarez	Dolores Gonzales Elementary	Albuquerque	18		1	4th	Classroom	1	1	ES
4/3/2018	David Tichnell	Holy Ghost Catholic School	Albuquerque	26		1	6th	Classroom	1	1	MS
4/5/2018	David Tichnell	Holy Ghost Catholic School	Albuquerque		26	2	6th	Study trip	1	4	MS
4/9/2018	Rona Gomez	Georgia O'Keeffe Elementary	Albuquerque	27		1	5th	Classroom	1	1	ES
4/10/2018	Rona Gomez	Georgia O'Keeffe Elementary	Albuquerque	108		4	5th	Classroom	4	4	ES
4/23/2018	Holly Riviera	Holy Ghost Catholic School	Albuquerque	25		1	5th	Classroom	1	1	ES
5/9/2018	Carol Blackshear	Del Rio Academy	Belen	15		5	4th-6th	Classroom	1	1	MS
5/9/2018	Eric	Del Rio Academy	Belen	15		5	6-8th	Classroom	1	1	MS
5/10/2018	Robert Jones	Harrison Middle School	Albuquerque	165		5	6th	Classroom	5	5	MS
1/11/2018	BEMP	Otter Day	Albuquerque		103	33	Kinder/1st	Event	6	2.5	ES
4/16/2018	BEMP	Otter Day	Albuquerque		104	41	1st	Event	6	2.5	ES
4/25/2018	BEMP	BEMP Congress	Bernalillo		150	30	7th-12th	Event	38	4	MS + HS
4/27/2018	BEMP	BEMP Congress	Albuquerque		100	15	4th-6th	Event	25	4	MS
5/25/2018	BEMP	LTER Virtual Symposium	Albuquerque		34	12	6th-12th	Event	10	2.5	MS + HS
6/11/2018	BEMP	Horizons Albuquerque	Albuquerque		15	3	8th	Study trip	1	2	MS
6/26/2018	BEMP	Horizons Albuquerque	Albuquerque		15	3	6th	Study trip	1	1	MS
Total #'s				1517	730	259			159	107	

Exhibit 5
Nature Conservancy 2017-2018

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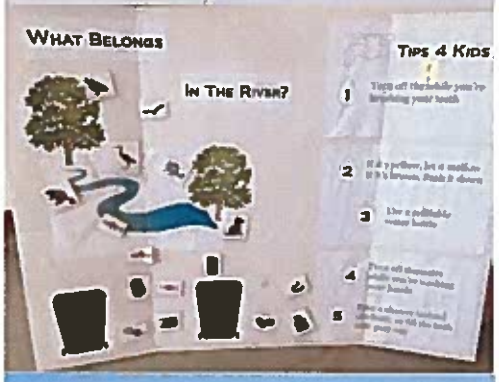
Protecting nature. Preserving life.

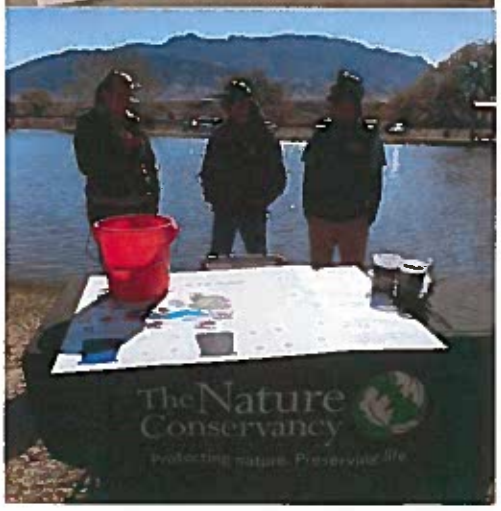
New Mexico
212 East Marcy, Suite 200
Santa Fe, New Mexico 87501

Tel (505) 988-3867 nature.org/new
Fax (505) 988-4095 mexico

The Nature Conservancy in New Mexico
Urban Conservation Educational Programs
Final Report to the City of Albuquerque: June 2018

In 2018, The Nature Conservancy engaged some specific communities, including an under-resourced area, with education/awareness programs focused on stormwater pollution emphasizing nature-based solutions. Our education program reached both adults and youth with hands-on, outdoor learning activities about stormwater impacts on the Rio Grande, how Albuquerque residents can reduce stormwater pollution, and the role of infiltration and the use of trees and other vegetation to clean our air and water. We reached approximately 100 adults and 250 children with our water messages and an additional number of people with earned media from articles featured in the Albuquerque Journal and Alibi.





Youth Education Programs:
In April, we conducted two Earth Day events connecting with students from all over Albuquerque. One event at a local Title I school, in the Barelas neighborhood included children from kindergarten through 5th grade. Activities ranged from planting a school garden, making native plant seed balls (seed bombs), soil filter experiment, stormwater bingo and learning about rainwater catchments. Other activities included a hands-on game board called "What Belongs in the River?" which was a fun way to engage younger students in understanding stormwater pollution sources. We also piloted the "Conservation Classroom" by providing curriculum on water conservation to over 100 elementary students.

A second event was hosted at Sandia Lakes for about 150 special-needs students and their families (75 adults). Students were primarily from Albuquerque Sign Language Academy, plus special-education students from various schools throughout Albuquerque Public Schools (APS) system. Participants, both youth and adults, participated in similar hands-on activities and watershed based educational curriculum. Topics included stormwater management, water quality, watershed connections, the importance of forests and mountains as water towers, drinking water sources, impacts of drought, and ecological consequences of river management.

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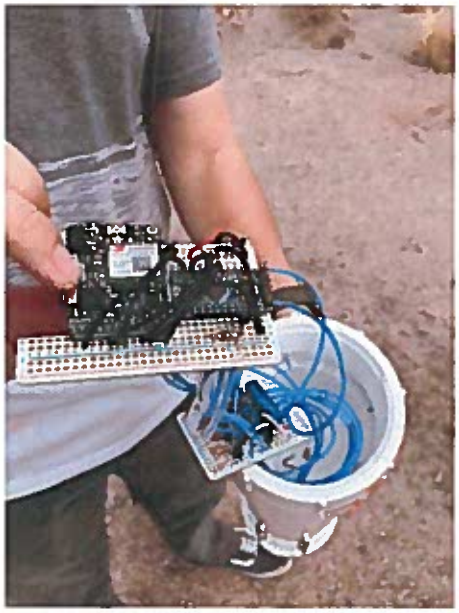
We have also engaged eight Rocky Mountain Youth Corp members, ages 17-25, in activities to learn about trees and how stormwater could serve as an asset to building a more robust tree canopy in Albuquerque. Crew members assisted with taking an inventory of and assessing the health of trees in city parks and street trees to help us understand where the gaps in tree canopy are, which trees do the best in our urban setting and identifying locations where stormwater could benefit street trees.

Finally, we participated in an afterschool program at NexGen Academy focused on technology, where students learned about stormwater management and produced a device to measure soil moisture. Using an Arduino, a small programable computer chip, the students developed a field unit that could be placed along an arroyo, acequia or small canal to measure soil moisture to inform the appropriate biofiltration plants that area could support. The unit is water tight, to be able to handle natural weather and transmits the data to a google spreadsheet in real time. It also has four sets of sensors to measure soil moisture at various depths. We worked with the students to help them understand rainfall totals, stormwater management including the types of arroyos and other channels that are used to carry stormwater, the concept of biofiltration and how it works, as well as the reasons behind why this type of data is important and how it could be used. The students diligently worked on their prototype and won first place in the State MESA competition and are competing this week in the National finals.



Adult Education Programs:
In March, we hosted a volunteer day to install 2,500 gallons of rainwater storage capacity at Dolores Gonzales Elementary School in Barelas. This installation brought in additional support from General Mills and their employees, who volunteered to install the barrels at the school. It was a great day and they made short work of the installation. We also had a volunteer who created a video of the day, which can be found here: https://vimeo.com/260859979.

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As well, we engaged three neighborhood associations near Tijeras Arroyo through a watershed health forum to discuss stormwater management, sources of pollution and how residents can reduce their contributions. We will continue to work with these neighborhoods to help them address their local issues. Related to this, the Arid LID Coalition has doubled in the number of active members participating in our bi-monthly meetings. The group has targets for stormwater education and outreach as a primary goal for this year and we are in the process of developing a short (1-2 min) video about green stormwater infrastructure and the role it plays in arid environments. We expect the video to be released during the EPA Region 6 Stormwater conference in August. Additionally, we have engaged a small group of residential and commercial developers to understand how we might overcome barriers to the adoption of green stormwater infrastructure techniques.

Tijeras Creek is an important tributary of the Rio Grande and with its recent TMDL limits, it is an area of active restoration. The Conservancy has continued to participate in this Watershed Collaborative, which is addressing all parts of the watershed from high in the Sandias to the River. Projects such as the Cedro Restoration Project at the Cedro Creek headwaters and the Rocky Mountain Youth Corp project, funded by the Rio Grande Water Fund, which is restoring 3-4 miles of Cedro Creek, will improve conditions to reduce erosion, improve water infiltration and potentially reduce the flow of contaminants into the City's jurisdiction.

Finally, we have engaged with two local experts to develop a plant list of trees and shrubs that are suitable for five elevational transects crossing the city. These selected species account for drought tolerance, water requirements, temperature limits, invasiveness, wildlife habitat and other attributes that make them good selections for our arid City.

Marketing and Communications:
During the time of the Conservancy's contract with the city, we disseminated a media advisory about urban conservation outreach activities, which was pitched to regional media outlets (see attached). Two local newspaper outlets, The Albuquerque Journal and the Alibi produced stories about stormwater management and our education efforts. In total, between February and June, 14 stories appeared about urban conservation initiatives reaching 4.68M online and 206,000 via broadcast. These stories have a total publicity value of $16,000.

Additionally, a volunteer produced a video about the rainwater catchment project, which was disseminated through social media tools and received wide distribution through one of our partners, General Mills (see link on page 2). As well, all media coverage and releases are highlighted on the Conservancy's website and Facebook page. These educational programs were also featured in the Conservancy's spring State Director's Letter, which included a quote from Kevin Daggett, reaching more than 8,000 households in New Mexico and was distributed to 3,000 individuals through our Great Places e-newsletter.

Highlighted stories include:
June 14
http://www.koat.com/article/nature-conservancy-trains-kids-how-to-prevent-tree-loss/21351290

June 13
http://www.krqe.com/news/albuquerque-metro/students-take-part-in-annual-tree-trimming/1234185842

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April 19
https://alibi.com/feature/55803/Healthy-Plants-Healthy-Kids.html

April 19 - ABQ Journal Home Style section
http://www.pressreader.com/usa/albuquerque-journal/20180420/282948155827883

April 5
https://www.bizjournals.com/albuquerque/news/2018/04/04/nature-conservancy-opens-albuquerque-office.html?anae_ae_set1&sarticle_du&ed2018-04-04&uBTJH4DWHKt2BFfqH0OBRBLQ000b4250&t1522881870&j80857241

Exhibit 6
EarthForce 2017-2018

TO: Kathy Verhage, City of Albuquerque
FROM: Vince Meldrum
DATE: Wednesday, October 3, 2018
RE: Earth Force Progress Report/Invoice

Thank you again for your ongoing support of Earth Force. We are happy to report that we are making substantial progress toward the goals outlined in our contract with the City of Albuquerque.

Our contract outlines benchmarks in three areas: Educator Training; Volunteer Engagement/Training; and, World Water Monitoring Day. As of the end of September we have made substantial progress in each category. Please accept the following as an interim report on our progress.

Goal 1: Train 10 Educators
To date we have identified 12 educators who will be working with Earth Force this year. Of that number six received training in September two received training in the Spring of 2017, and four will be working under the umbrella of an experienced educator at Truman Middle School (will not require training). The following is a list of educators working with Earth Force during the 2017/2018:

Isleta Middle School:
* Loretta Ortiz - 6th Grade Teacher
* Christine Nieto - 6th Grade Teacher
* Janelle Armijo - 5th Grade Teacher
* Rebecca Vesely - Principal

Truman Middle School:
** Lynn Schuler - MS Teacher/MESA Leader
Michael Pedersen - MS Teacher
Jesse Winter - MS Teacher
Cilian Perez - MS Teacher
Nicholas Kadlec - MS Teacher

Native American Community Academy (NACA):
** Charlene Lucero - 6th and 7th Grade Science Teacher
* Tylar Rodriguez - HS Chemistry and Physics
* Rob Salazar - 7th and 6th Grade Science Teacher

** Trained in September 2017*
*** Trained Prior to September 2017*

Goal 2: Engage 7 Volunteers

Earth Force engages volunteers who support students and educators as they progress through the Earth Force process. So far, this year Earth Force has identified and has begun the process of preparing volunteers from the following organizations:

- Bureau of Indian Affairs (BIA)
- U.S. Fish and Wildlife Service,
- Sandia Pueblo Environment Department
- Isleta Pueblo Environment Department
- Bosque Ecosystem Monitoring Program (BEMP)
- Intel

Goal 3: Prepare for World Water Monitoring Day

As of the end of September we had planned two events to commemorate World Water Monitoring Day. First, we planned to host students from Truman Middle School at the Valle de Oro Urban Refuge on September 20, 2017 (that event has subsequently taken place). Second, we began working with NACA to host students for a water monitoring event at Valle de Oro (we are still finalizing a date for that event).

Keep Fats, Oils & Grease Out of Drainage Pipes and Sewers

FATS, OILS AND GREASE (FOG) can:

- **Congeal in underground pipes**, **cause blockages**, and possibly damage pipes and cause sewage and contaminants **to back up** into your home or overflow into parks, yards and streets, where it can end up in storm drains and enter the Rio Grande.
- Result in contact with **disease-causing organisms.**
- **Increase calls for a plumber** to unclog pipes.
- Result in **unpleasant and expensive cleanups** at your expense.

Mid Rio Grande
Stormwater Quality Team
www.keeptheriogrand.org

Dispose of Fats, Oils & Grease (FOG) Properly

Fats, oils and grease include:

- Vegetable-based cooking oils, and
- Animal-derived fats (milk, butter, lard, meat drippings, pet food and fast-food products).

- **Pour or place FOG in disposable containers,** cover and throw them out in the trash.
- **DO NOT put food scraps in the garbage disposal –** this shreds solids into smaller pieces but doesn't prevent grease from doing down the drain. Instead, use a strainer in the sink to catch food scraps and discard them in the trash.

Mid Rio Grande Stormwater Quality Team
www.keeptheriogrand.org

KEEP THE RIO GRAND!

Congratulations

on your NEW Dog or Cat!

Don't Poo-Poo The Rio!

A recent study found that one-fourth of river contamination comes from domestic dog waste.

Pet waste left on the ground can wash into streets, storm inlets, pipes, arroyos and storm drains and end up, **untreated,** in the Rio Grande. The biggest threat to our river water quality is bacterial contamination, including *e-coli.*

Whether you're:

- Walking in town
- At a dog park
- Hiking in open space or wilderness
- Cleaning out the litter box
- Or even just maintaining your own back yard...

Please clean up your pet's waste and dispose of it properly!

Mid Rio Grande Stormwater Quality Team
www.keeptheriogrand.org

KEEP THE RIO GRAND!

Once in the river, pet waste uses up oxygen when it begins to decay, harming fish and aquatic life and making our river water unsafe. It can also contribute large amounts of *e-coli* bacteria to the river.

Dog Waste

Please pick up after your dog whenever you walk along a street, visit a dog park, take a walk in a public park or walk in an open space area.

- Bring paper or plastic bags with you
- Place the waste in the bag
- Tie it shut
- Dispose of the bag in a trash (NOT recycling) container
- Pick up the pet waste in your yard regularly

Cat Waste

Even "flushable" cat litter can clog sewers and septic tanks – do not throw ANY cat litter down the drain or in the toilet! Instead, follow these steps to dispose of litter:

- **Scoop out the litter box regularly**
- **Place the contents in a paper or plastic bag**
- **Tie the bag securely**
- **Dispose of the bag in a trash (NOT recycling) container**

STORMWATER QUALITY TEAM
www.keeptheriogrand.org

SCOOP YOUR POOP

GRAB IT
BAG IT
TOSS IT

There IS NO Poop Fairy!

Thousands of pets create tons of pet waste each day! If not disposed of properly, that waste can:

- **Make the water in the Rio Grande unsafe**
- **Infect children and adults with disease-causing bacteria and parasites**
- **Spread disease between pets**

Pet Waste Can Affect Our River, People and Pets.
Pet waste left on the ground can wash into storm drains and end up in the Rio Grande, contributing large amounts of *e-coli* bacteria to the river.

Improper disposal of pet waste can put our health at risk, too. Pets and children who play in yards or parks where pet waste is not picked up are at risk for infection from disease-causing bacteria and parasites, such as:

Campylobacteriosis – causes diarrhea in humans.

Salmonellosis – causes fever, muscle aches, headaches, vomiting and diarrhea.

Toxocariasis – can potentially cause vision loss, a rash, fever, or a cough.

Toxoplasmosis – can cause birth defects if a woman becomes infected during pregnancy and can also be a problem for people with depressed immune systems.

Mid Rio Grande Stormwater Quality Team
www.keeptheriogrand.org

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STORMWATER QUALITY TEAM
www.keeptheriogrand.org

Reduce Stormwater Pollution at Home

Pet waste, grass clippings and yard waste, fertilizers, weed killers, and vehicle fluids including antifreeze and motor oil are just some of the things around your home that can pollute the Rio Grande. Left on the ground, they can wash into streets, storm inlets, pipes, arroyos and storm drains, which ALL lead directly to the river, untreated.

Lawn & Garden

- **Discard grass clippings** and other yard waste in bags and throw in the trash receptacle.
- **Keep yard waste from the street** where it can enter storm drains.
- **Don't wash fertilizers, weed killers, pesticides or other chemicals into the street** where they can enter storm drains.

KEEP THE RIO GRAND!

Vehicles

- **Use commercial car washes whenever possible –** they are equipped to collect and recycle wash water. If you choose to wash the vehicle yourself, put the vehicle on the grass if possible.
- **Use a minimum of soap,** and always use a hose with a trigger spray so you can turn the water off and keep it from running down the driveway into the street and storm drains.

- **Dispose of used motor oil and hydraulic fluids at a local automotive part store or a certified hazardous waste facility. NEVER** put motor oil, antifreeze or any other vehicle fluid down a storm drain, sink or toilet, and **NEVER** pour these fluids on the ground.
- If any fluids leak onto your driveway, clean them up. **DO NOT wash them into the street.**

Pet Waste

- **Pick up after your dog** regularly. Dispose of the bag in a trash (NOT recycling) container
- **NEVER throw** cat litter down the drain or in the toilet.

Mio Rio Grande Stormwater Quality Team
www.keeptheriogrand.org

KEEP THE RIO GRAND!

NEW Outdoor Rebate

THE CITY OF RIO RANCHO is proud to unveil the new rebates for irrigation and landscaping. This program is sponsored in part through a grant received from the US Bureau of Reclamation. The grant is for $30,000 and it is required to be matched with City funds. "Receiving money through this grant program allows the City to leverage funds, stretching our dollars," said Jim Chiasson, Utilities Director.

The rebate includes high-efficiency spray nozzles, smart irrigation controllers and turf conversion. Go online at **www.riorebate.org** or call **(505) 896-8715** for more information about the outdoor component of our rebate program.

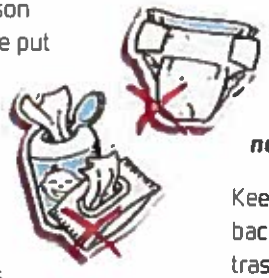
Utilities Assistance Fund

City Councilors Jim Owen (District 1) and Cheryl Everett (District 3) sponsored an ordinance to institute a utilities assistance program for residents in Rio Rancho that are in need.

The program was developed so that customers who are at 133% of the federal poverty level or lower, may qualify for assistance with their City utilities bills. The customer must currently live in the residence and not be past due on their utilities bill. Proof of monthly income must be provided. Assistance is 30% of the total utilities bill, up to $35 per month, for a length of three months per year. A customer may reapply for further assistance in future years. Go to the City website, **www.rrnm.gov/UAF** for a complete list of qualifications and the application form or call **(505) 896-8715.**

Beware the Holiday FOG!

FATS, OILS, AND GREASE (FOG) are a costly sewer problem for municipalities, and the FOG problem is much worse during the holiday season. Grease and fats that are put down drains or in the toilet solidify and can create "fatbergs." They can clog customer sewer lines causing raw sewage to back up into the homes and these fatbergs can also clog the large sewer mains causing overflows of raw sewage.



A recent article in the New York Times tells about a fatberg in London. The London fatberg is 1/6 of a mile long and weighs more than 140 tons. To see a photo and read the article about the fatberger visit **https://nyti.ms/2eVZyk6**

Disposable wipes, baby diapers, and feminine hygiene products make the fatbergs more solid, like a rock in some cases. ***All of these products, including flushable wipes, should be put in the trash, not down the toilet.***

Keep your holidays clean from backups: dispose of FOG in the trash. ***Cool It. Can It. Trash It.***

Get Your **FREE** **"Cease the Grease"** Spatula*

Stop by the Utilities Department Environmental Programs
(City Hall Room 250)

***While supplies last**

Your Help is Needed

The Utilities Assistance Fund is accepting donations to help with offsetting utilities bills for customers who qualify. There are several ways you can donate.

- In-person with cashiers at city hall with cash, credit card, or check.
- Mail a check payable to City of Rio Rancho at 3200 Civic Center, Rio Rancho, NM 87144 and specify payment is for Utilities Assistance Fund.
- Request a recurring donation to be added to your bill by calling Customer Service at **(505) 896-8715.**

City of Rio Rancho
Utilities Division
3200 Civic Center Circle NE
Rio Rancho, New Mexico 87144

Watch for the 2018 Calendar Available in November

******** ECRWSS ********
Postal Customer
Rio Rancho, New Mexico

RioRancho City of Vision

City of Rio Rancho Environmental Programs

City of Rio Rancho Water Conservation Office
Conserve Today. Preserve Tomorrow.

UTILITIES PHONE NUMBERS

Administration 505-896-8715

Utilities Billing..... 505-891-5020

Report Leaks
NEW .....waterleaks@rrnm.gov
.....505-891-5019

Emergency/
Leaks After Hours..... 505-975-1581

Line Spots, NM811.....811

Water Conservation....505-896-8715

Engineering 505-891-5016

Environmental
Programs 505-896-8737

Water Waste Hotline.. 505-896-8299

Timer Tips

The Smart Way To Water Outdoors:

- **ONCE A WEEK IN NOVEMBER**
- **TURN IT OFF FOR THE WINTER**

It's as easy as 1-2-3-2-1!

If you need help setting your timer, call

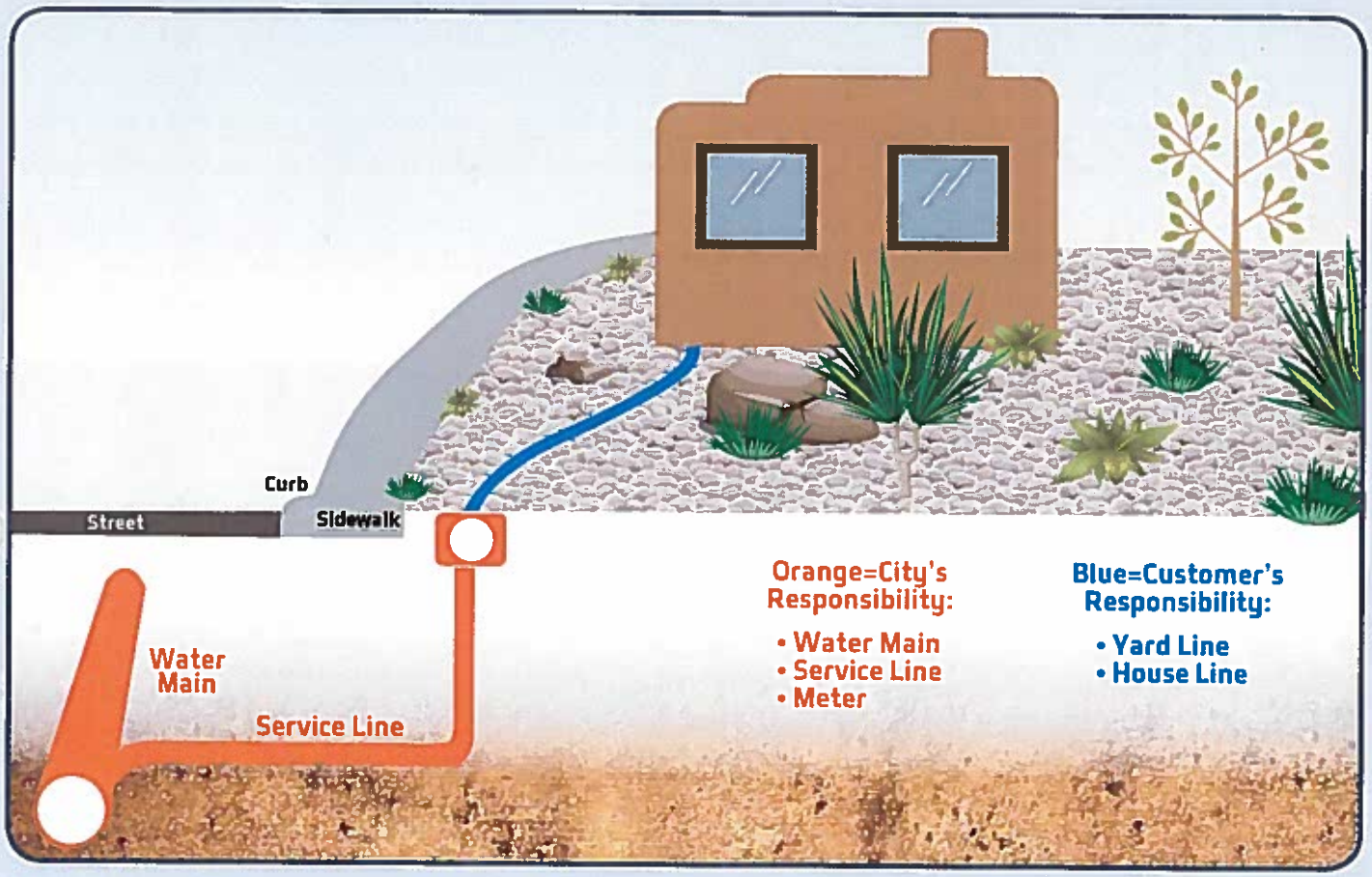
896-8715

We're happy to help.

Rio Rancho
City of Vision

Utilities Department · City of Rio Rancho

FALL 2017



Who Owns the Water Pipes?

THE CITY OWNS AND TAKES CARE OF the large water main lines in the street as well as the service lines coming off the main to the water meter. The City also owns and takes care of the customer water meters. Water customers own the water pipes coming from the meter to the home (yard line) or business and all the water pipes in the home.

If there is a water leak in the home, the homeowner's insurance normally takes care of the pipe repair/replacement and any water damage. Most homeowner's insurance policies do not cover any leaks on the yard line, so the homeowner has to pay for repair or replacement of the yard line.

Periodically, customers call the City's Water and Wastewater Utilities because they have received information in the mail about "pipe insurance" that can be purchased. Beware that this insurance is only for the yard line. It is recommended that customers investigate the company via the Better Business Bureau® or with a search on the Internet before investing in this insurance. This will ensure satisfaction with their performance and service should you have a service line or yard leak in the future.

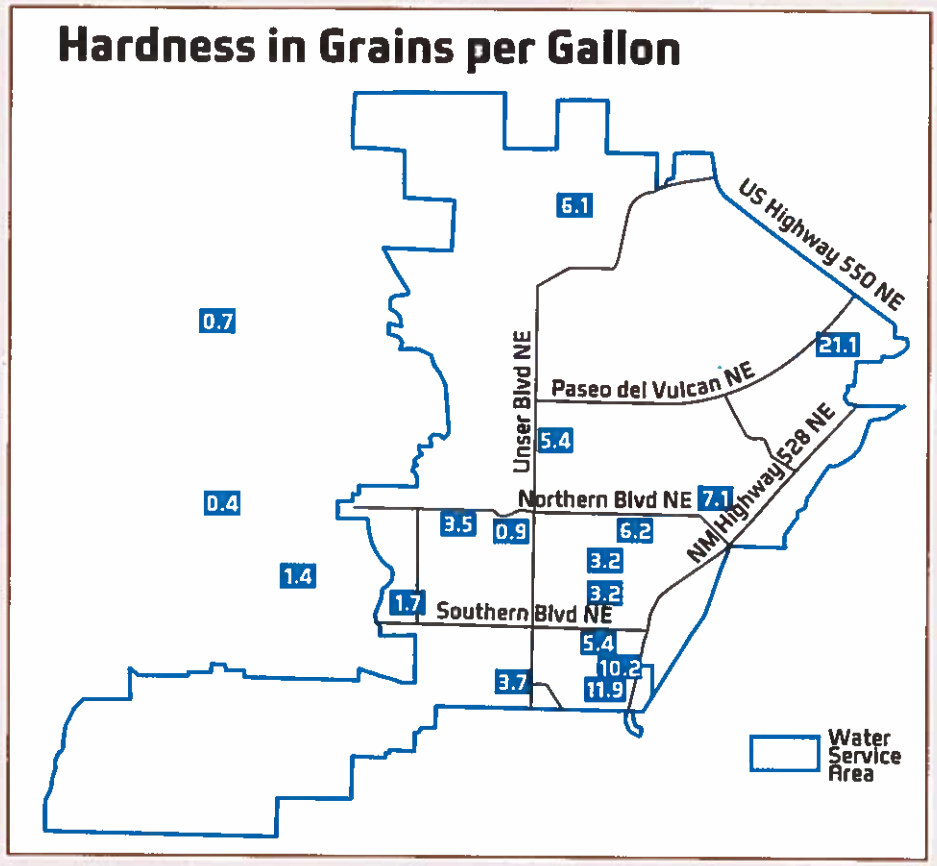
If you have a problem with your water service, whenever possible, call the City's Utilities at **(505) 891-5020** during business hours or **(505) 975-1581** after hours. If you need to call a licensed plumber before the City, make sure the plumber documents any issues via photographs. The City will not pay for claims that are not documented.

Water Hardness

MANY INDUSTRIAL AND DOMESTIC WATER USERS are concerned about the hardness of their water. Hard water requires more soap and synthetic detergents for home laundry and washing, and contributes to scaling in boilers and industrial equipment.

Water hardness is caused by compounds of calcium and magnesium and by a variety of other metals. An excellent solvent, water readily dissolves minerals it comes in contact with. As water moves through soil and rock, it dissolves very small amounts of minerals and holds them in solution. Calcium and magnesium dissolved in water are the two most common minerals that make water "hard." The hardness of water is referred to by three types of measurements: grains per gallon, milligrams per liter (mg/L), or parts per million (ppm). The table shown on this page is provided as a reference.

Often, when you purchase a new dishwasher or washing machine, the manufacturer has recommended settings that depend on the hardness of the water. The drinking water in the City of Rio Rancho is groundwater that comes from the aquifer. The amount of calcium and magnesium differs greatly depending on where the production well is in the City. Even though the drinking water is blended from several wells before it reaches a home or business, the water hardness varies in different areas of the City. The US Environmental Protection Agency (EPA) establishes standards for drinking water which fall into two categories – Primary Standards and Secondary Standards. Primary Standards are based on health considerations and Secondary Standards are based on aesthetics such as taste, odor, color, or corrosivity. There is no Primary or Secondary standard for water hardness.



ABOVE: This map of the City shows the various levels of water hardness you may be getting from your tap.

Water Hardness Scale		
Grains Per Gallon	**Milligrams Per Liter (mg/L) or Parts Per Million (ppm)**	**Classification**
less than 1.0	less than 17.1	Soft
1.0 - 3.5	17.1 - 60	Slightly Hard
3.5 - 7.0	60 - 120	Moderately Hard
7.0 - 10.5	120 - 180	Hard
over 10.5	over 180	Very Hard

What is that Smell?

CUSTOMERS OCCASIONALLY EXPERIENCE a "rotten egg" odor when using their water generally in the back bathroom. This odor is not coming from the water source but from the trap under the sink where bacteria are living. When the water from the faucet lands on the stagnant water in the trap, it stirs it up, releasing the sulfur smell. If this aroma happens at your home, just carefully pour about a quarter of a cup of household bleach down the drain. If the bacteria are very stubborn, you may have to administer a second dose of household bleach.

Section 5:

Public Review and Comment

http://www.rrobserver.com/news/article_07b78eb4-e769-11e7-b0af-abd9e5a79ff5.html

Rise in trash fee upsets residents

By Argen Duncan
Editor Jan 2, 2018

Courtesy Photo

An increase of about $3 a month, or almost 20 percent, in trash-collection bills has caused angst among Rio Ranchoans.

At its November and December meetings, the Rio Rancho Governing Body approved the exclusive solid-waste removal franchise agreement with Waste Management of New Mexico. Because it is an ordinance, the governing body was required to listen to any public comment and vote on the agreement at two meetings.

City Councilor Marlene Feuer recused herself from the votes, saying she has worked in the solid-waste field for 35 years and wanted to avoid any conflict of interest.

Enchanted Hills resident Rick Lomando, who's lived in Rio Rancho since 2009, said he hadn't known about the existing franchise agreement and the worst part of the increase was the surprise of it.

"They should do a better job of communicating," he said.

Lomando said he never received a flier with his bill or any other notification that rates could change. He also said he didn't understand why the city couldn't have put the service out for competitive bids.

City spokeswoman Annemarie Garcia said the new fee includes more services citizens requested and the governing body supported.

"The last time there was a large increase was 10 years ago when the contract was negotiated and passed by the governing body," Garcia said. "This 10-year agreement allowed for an occasional 1-2 percent annual increase, but did not include a large increase."

She said the increase covers costs Waste Management has incurred over the past 10 years and general increases in the cost of doing business.

"There are similar terms in this agreement; therefore, citizens may see a 1-2 percent increase annually under this contract but no further large increase again until the contract has expired well into the future," she said.

The Observer obtained a residential bill for Jan. 1 through March 31, 2018, from a Waste Management customer in Cabezon. Customers are billed for service in advance.

The bill listed costs as $47.73 for service to the 96-gallon trash container, no charge for the 96-gallon recycling container, $2.39 for the franchise fee and $3.73 in gross receipts tax, for a total of $53.85 for three months of service.

So, the yearly cost would be $215.40, compared to the $179.64 annual charge the customer reported from 2017. For that customer, the price of trash service rose to $17.95 per month in 2018, up from $14.97 per month in 2017, an increase of $2.98 per month or $35.76 per year.

That's an increase of 19.9 percent.

Some services, such as extra trash containers or pickup of bulky items, come at additional cost.

Waste Management could stop trash service to a customer if the customer hadn't paid the bill within 90 days of the invoice date.

For comparison of monthly base rates for residential trash collection, the City of Albuquerque charges $15 per month, the City of Las Cruces charges $13.25 and the City of Hobbs charges $18.06, according to City of Rio Rancho documents.

"Waste Management is proud to continue delivering safe, efficient services to our Rio Rancho neighbors," said Jennifer Rivera, Waste Management Four Corners communications director.

She said the higher fee covers new services and disposal options.

New services

According to city documents, the fees include these new services from Waste Management:

- One day per month when residents can drop off up to one pickup-truck load of trash at the landfill for free, up from one day every six months.
- Pickup of household hazardous waste such as pesticides, antifreeze, electronics and batteries from customers' homes.
- Billing four times a year instead of two, intended to allow smaller payments per billing cycle and reduce delinquency.
- Provision of $15,000 per year to a city-designated non-profit to help pay trash pickup bills for indigent residents.

- Provision of $50,000 per year to the city to maintain residential streets.

- Drop-off for glass recycling at the landfill.

Waste Management will continue to pay the city a franchise fee of 5 percent of its gross income per month, according to city documents. Companies typically pass the cost of franchise fees on to customers.

Commercial rates

New commercial base rates range from $42.44 per month for once-weekly service of a 1-yard trash container to $841.28 per month for service of an 8-yard container six times a week, according to city information. The corresponding 2017 monthly commercial rates were $41.20 for once-weekly service of a 1-yard trash container and $816.78 for service of an 8-yard container six times a week.

The changes equate to increases of about 3 percent in both cases. Listed costs don't include franchise fees or gross receipts tax.

For comparison, service for a 3-yard commercial container once a week, including franchise fee, costs $78.67 in Rio Rancho, $70.64 in Albuquerque, $85 in Las Cruces and $104.14 in Hobbs, according to city documents.

City facilities receive free disposal services for trash generated by routine activities.

Agreement details

The new 10-year agreement takes effect Jan. 1. After 10 years, the agreement could be extended for five more years.

Under the agreement, the services fees can be adjusted in the future to become 85 percent of the annual consumer price index for utilities, but cannot increase more than 2.5 percent per year.

According to a city memo, the city's procurement code allows it to exempt utility services including trash disposal from the competitive bidding process.

"Staff evaluated the feasibility of competitively bidding the contract for the service; however, it was determined that such a process would likely result in either reduced services to the customer or bid specifications perceived as being skewed to the current vendor," according to city information.

Governing body members agreed to negotiate with the company instead of requesting proposals.

Section 6:

Signature on Certification of Annual Report

RioRancho
City of Vision

City of Rio Rancho

3200 Civic Center Circle NE
Rio Rancho, New Mexico 87144
(505) 981-5005 • FAX (505) 981-0986

"Director"
US EPA Region 6
1445 Ross Ave., Suite 1200 (6EN-WT)
Dallas, TX 75202-2733

NPDES Permit No. NMR04A000
Delegating an "Authorized Representative" for the City of Rio Rancho

Dear Director:

This letter serves to designate either a person or specifically described position as an authorized person for signing reports, storm water pollution prevention plans, certifications or other information requested by the Director of required by the permit. This authorization cannot be used for signing an NPDES permit application (e.g. Notice of Intent (NOI)) in accordance with 40 CFR 122.22. The following person or position is herby authorized to sign reports, storm water pollution prevention plans or certifications other than the NOI application:

Name: David Serrano, P.E. Position: Engineering Division Manager

By signing this authorization, I confirm that I meet the following requirements to make such a designation as set forth in Part IV.H.1-4 of the Municipal Separate Storm Sewer System Permit [79 Fed Reg 76328].

> *For a municipality, State, Federal or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (1) the chief executive officer of the agency, or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g. Regional Administrators of EPA).*

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

Keith Riesberg	City Manager	6/18/15
	Title	Date