
**FY 2017 MS4 Annual Report
in Compliance with
Watershed Based Permit NMR04A000**



County of Bernalillo
State of New Mexico
Natural Resource Services

December 1, 2017



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List of Attachments

- 1 Discharge Monitoring Reports (DMRs) for Middle Rio Grande Urban Area
- 2 Bernalillo County Stormwater Facilities Map
- 3 2018 Project Schedule – Planned Water Quality Facilities Report

Annual Report Format



National Pollutant Discharge Elimination System Stormwater Program MS4 Annual Report Format



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

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

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

1. MS4(s) Information

Bernalillo County

Name of MS4

Kali Bronson Stormwater Prog. Compl. Manager

Name of Contact Person (First) (Last) (Title)

(505) 848-1544 kbronson@bernco.gov

Telephone (including area code) E-mail

2400 Broadway Blvd. SE, Building N

Mailing Address

Albuquerque NM 87102

City State ZIP code

What size population does your MS4(s) serve? 111,000 NPDES number NMR04A000

What is the reporting period for this report? (mm/dd/yyyy) From Jul 1, 2016 to Jun 30, 2017

2. Water Quality Priorities

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

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

Impaired Water	Impairment	Approved TMDL		TMDL assigns WLA to MS4	
		Yes	No	Yes	No
Rio Grande NM-2105_50 (Isle)	E. coli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rio Grande NM-2105_50 & N	Dissolved Oxygen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rio Grande NM-2105_50 & N	PCBs in Fish Tissue	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rio Grande NM-2105_51 (Tije)	Temperature, water	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. B. Continued

Impaired Water	Impairment	Approved TMDL		TMDL assigns WLA to MS4	
Tijeras Arroyo NM-9000.A_004	Nutrient/Eutrophication	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No

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

Pet waste (E. coli); septic waste (E. coli); household waste (nutrients & potential PCBs); and fats, oils, and grease (FOG) (dissolved oxygen, nutrients & E. coli).

D. Do you discharge to any high-quality waters (e.g., Tier 2, Tier 3, outstanding natural resource waters, or other state or federal designation)? Yes No

E. Are you implementing additional specific provisions to ensure their continued integrity? Yes No

3. Public Education and Public Participation

A. Is your public education program targeting specific pollutants and sources of those pollutants? Yes No

B. If yes, what are the specific sources and/or pollutants addressed by your public education program?

Pet waste, trash & debris, household hazardous waste, and septic system waste.

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.

Please refer to the attached Annotations document for public education program and outcome information

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

4. Construction

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

Erosion and sediment control requirements? Yes No

Other construction waste control requirements? Yes No

Requirement to submit construction plans for review? Yes No

MS4 enforcement authority? Yes No

B. Do you have written procedures for:

Reviewing construction plans? Yes No

Performing inspections? Yes No

Responding to violations? Yes No

C. Identify the number of active construction sites \geq 1 acre in operation in your jurisdiction at any time during the reporting period.

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

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

On average, three site inspections are conducted for each project. A minimum of one inspection occurs with as many as five inspections, depending on the duration and complexity to the construction project.

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

If Yes, based on what criteria?

All construction sites are inspected. If there are prior or current complaints or construction delays, the County may conduct additional inspections.

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:

- | | | | | |
|---|-----------------------|--------------------------------|--------------|-------------------------------------|
| <input checked="" type="checkbox"/> Yes | Notice of violation | <input type="text" value="1"/> | No Authority | <input type="checkbox"/> |
| <input type="checkbox"/> Yes | Administrative fines | <input type="text"/> | No Authority | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> Yes | Stop Work Orders | <input type="text" value="0"/> | No Authority | <input type="checkbox"/> |
| <input type="checkbox"/> Yes | Civil penalties | <input type="text"/> | No Authority | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> Yes | Criminal actions | <input type="text" value="0"/> | No Authority | <input type="checkbox"/> |
| <input type="checkbox"/> Yes | Administrative orders | <input type="text" value="0"/> | No Authority | <input type="checkbox"/> |
| <input type="checkbox"/> Yes | Other | <input type="text"/> | | |

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?

Absence of or improperly placed rain gages; SWPPP book not onsite/not immediately available; mud/dirt tracking issues

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

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.

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?

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?

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

Maintenance crew screens all outfalls on a regular basis. At a minimum, the screening occurs at least quarterly.

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

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

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

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

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

6. Stormwater Management for Municipal Operations

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

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

Other

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

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

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

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?

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?

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

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

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

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

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.)?

- 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://www.bernco.gov/public-works/post-construction-storm-water-management-new-re-development.aspx>

- G. How many development and redevelopment project plans were reviewed during the reporting period to assess impacts to water quality and receiving stream protection?
- H. How many of the plans identified in 7.G were approved?
- I. How many privately owned permanent stormwater management practices/facilities were inspected during the reporting period?
- J. How many of the practices/facilities identified in I were found to have inadequate maintenance?
- K. How long do you give operators to remedy any operation and maintenance deficiencies identified during inspections?
- L. Do you have authority to take enforcement action for failure to properly operate and maintain stormwater practices/facilities? Yes No
- M. How many formal enforcement actions (i.e., more than a verbal or written warning) were taken for failure to adequately operate and/or maintain stormwater management practices?
- N. Do you use an electronic tool (e.g., GIS, database, spreadsheet) to track post-construction BMPs, inspections and maintenance? Yes No
- O. Do all municipal departments and/or staff (as relevant) have access to this tracking system? Yes No
- P. How often do municipal employees receive training on the post-construction program?

8. Program Resources

- A. What was the annual expenditure to implement MS4 permit requirements this reporting period?
- B. What is next year's budget for implementing the requirements of your MS4 NPDES permit?
- C. This year what is/are your source(s) of funding for the stormwater program, and annual revenue (amount or percentage) derived from each?
- | | | | | | |
|---------|---|-----------|--|------|----------------------|
| Source: | <input type="text" value="1/8th Environmental Gross Receipts Tax"/> | Amount \$ | <input type="text" value="222,000"/> | OR % | <input type="text"/> |
| Source: | <input type="text" value="General Fund Revenues"/> | Amount \$ | <input type="text" value="1,195,000"/> | OR % | <input type="text"/> |
| Source: | <input type="text" value="Opens Space Mill Levy"/> | Amount \$ | <input type="text" value="146,000"/> | OR % | <input type="text"/> |
- D. How many FTEs does your municipality devote to the stormwater program (specifically for implementing the stormwater program; not municipal employees with other primary responsibilities)?

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

Entity	Activity/Task/Responsibility	Your Oversight/Accountability Mechanism
	Please refer to the attached	
	Annotations document for	
	information	

9. **Evaluating/Measuring Progress**

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

Indicator	Began Tracking (year)	Frequency	Number of Locations
<i>Example: E. coli</i>	2003	Weekly April–September	20
Please refer to the attached Annotations document for 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 the data (1-year, 4 samples) collected from the Compliance Monitoring Cooperative (CMC), observable trends have not yet been identified. See the attached Annotations document for additional information.

10. **Additional Information**

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

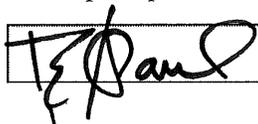
Certification Statement and Signature

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

Yes No

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

Signature



ROGER PAUL, DCM for PW
Name of Certifying Official, Title

11/21/17
Date (mm/dd/yyyy)



Annual Report Annotations

1. MS4 Information

Page 1: What size does your MS4 serve? Bernalillo County is 1,160 square miles and is New Mexico's most populous county with more than 674,000 residents. Bernalillo County government provides a wide range of public services to residents who live in Albuquerque, Los Ranchos de Albuquerque, Tijeras, and the **111,000 residents** who live outside the village and city limits in the unincorporated areas of the County. This population number includes residents who live both within and outside of the urbanized area.

2. Water Quality Priorities

Page 1-2: Impaired waters. Text box in the Environmental Protection Agency (EPA) Annual Report pdf form truncates text. For clarity during public review, impaired waters include:

Impaired Water*	Impairment
Rio Grande NM-2105_50 (Isleta Pueblo bnd to Tijeras Arroyo)	E. coli**
Rio Grande NM-2105_50 (Isleta Pueblo bnd to Tijeras Arroyo) & Rio Grande NM-2105_51 (Tijeras Arroyo to Alameda Bridge)	Dissolved Oxygen
Rio Grande NM-2105_50 (Isleta Pueblo bnd to Tijeras Arroyo) & Rio Grande NM-2105_51 (Tijeras Arroyo to Alameda Bridge)	PCBs in Fish Tissue
Rio Grande NM-2105_51 (Tijeras Arroyo to Alameda Bridge)	Temperature, water
Tijeras Arroyo NM-9000.A_001 (Four Hills Bridge to headwaters)	Nutrient/Eutrophication

*Impaired water designation from New Mexico Environment Department (NMED) Surface Water Quality Bureau 2016-2018 State of New Mexico CWA §303(d)/§305(b) Integrated List & Report.

**Though most of the Rio Grande through Albuquerque is not impaired for E. coli, there is a TMDL for E. coli from Isleta Pueblo Boundary to Angostura Diversion. Bernalillo County's northern boundary is at Alameda Bridge.

3. Public Education and Public Participation

Page 2: Item 3C. 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. The table below summarizes the Bernalillo County Public Outreach program during this reporting period. Additional information on the outreach programs is available upon request.

Throughout the reporting period, July 1, 2016, through June 30, 2017, the Bernalillo County Public Outreach programs were able to connect and educate thousands of Bernalillo County Residents. Overall, these educational programs and outreach activities conducted by Bernalillo County during this reporting period connected an estimated 465,000 times with County residents through their outreach programs. This outreach is estimated from Bernalillo County website, monthly newsletters, mailing inserts, and various public events results.



Public Education Outreach	Date	Successful Outcome
Bernalillo County website pages related to MS4 program & stormwater	July 1, 2016 to June 30, 2017	Analytics show webpages had 647 page views and 524 unique page views.
Bernalillo County Septic Systems Permits and "Unpermitted Campaign" Outreach Program	July 1, 2016 to June 30, 2017	Bernalillo County had 98 new wastewater permits, 17 new wastewater system operator permits, 8 septic tank abandonments, and sent approximately 280 letters through the "unpermitted campaign," which resulted in an estimated 233 properties permitted for septic systems.
Bernalillo County / City of Albuquerque (COA) Cooperative Household Hazardous Waste Collection	July 1, 2016 to June 30, 2017	1,980 County residents participated and 10,808 COA residents participated in cooperative Household Hazardous Waste collection. In addition, the County held 10 additional Household Hazardous Waste collections and an additional estimated 210 County residents participated.
BernCo at A Glance Monthly Newsletters	July 1, 2016 to June 30, 2017	500 hardcopies of each newsletter are printed and distributed via County offices and also provided at neighborhood association meetings by the neighborhood coordinator. The neighborhood coordinator also sends the monthly electronic newsletter to all County and City neighborhood associations. It is estimated that these monthly newsletters reach 1,000 people per month and 12,000 people annually.
Bernalillo County Support of Earth Force – Keep it Clean – Neighborhood Environmental Trios	July 1, 2016 to June 30, 2017	Earth Force – Keep It Clean reached 422 students and teachers in FY 2017. Classrooms collected water quality data, assessed the data and learned about our community's stormwater management. Then, they worked to develop projects that improve stormwater management.
Bosque Environmental Monitoring Program (BEMP) Monitoring and Educational Outreach Programs	July 1, 2016 to June 30, 2017	<ul style="list-style-type: none"> - Reached approximately 6,300 people (with repeats) in Bernalillo County through their outreach activities. - 22 Bernalillo County classrooms participated in monthly monitoring programs. - Monthly classroom visits for 3rd through 7th grade students. - Annual BEMP Conference for students (4th through 12th graders).



Public Education Outreach	Date	Successful Outcome
		-Several additional outreach programs including Rio Grande Confluence Meeting, STEMinar at CNM, Horizon's Program Super Saturdays and summer programs.
Master Naturalist Arboretum	September 11, 2016	BernCo Open Space hosted a Master Naturalists walk in the North Star Arboretum to learn about the history of the area and discuss management efforts underway to further develop the landscape. This outreach activity addressed xeric landscaping and stormwater management.
RiverXchange Watershed Presentations to Schools	August 2016 – June 2017	RiverXchange presentations to classes at 5 Bernalillo Public elementary schools and 42 total classrooms in the MRG watershed. This program includes pre- and post-surveys for the students to assess what students have learned about stormwater from the program.
KOB TV Health & Wellness Fair	January 23-24, 2017	8,000 people attended this annual event. Bernalillo County teamed with the Mid Rio Grande Stormwater Quality Team at this outreach event and 290 stormwater quality surveys were administered.
2017 Arid LID Land and Water Summit & Pre-Conference Field Trip	February 22-24, 2017	Approximately 150 people attended this event, including engineering professionals, developers, and landscapers. Approximately 30 people attended the pre-conference field trip on February 22, 2017. Bernalillo County was a financial sponsor for this conference.
First Choice South Valley Clinic Charrette	February 25, 2017	BernCo hosted the South Valley Community Farm/McEwen Pond Green Infrastructure Design Charrette.
Bernalillo County Internal Pollution Prevention/Good Housekeeping Trainings	March 2017 and May 2017	Kali Bronson, Stormwater Program Compliance Manager, conducted Pollution Prevention/Good Housekeeping Trainings for BernCo staff in 8 departments, approximately 52 employees attended these trainings.
Bernalillo County Landscape for Life: Spring Series (GI/LID seminar for residents)	March 4, March 18, April 1, April 22, and May 20, 2017	Educated approximately 200 residents about GI/LID landscaping practices.
Bernalillo County Naturalist Series	March 9, March 23, April 20, April 23, April 30, May	Series of presentations focused on engaging topics on New Mexico's environment (including storm water quality



Public Education Outreach	Date	Successful Outcome
	14, June 11, and June 14, 2017	topics such as “Rainwater Harvesting in a Changing Environment”).
ABCWUA mailing insert – Flood Alert & Household Hazardous Waste Education/Disposal	April 2017	ABCWUA mailing insert reached approximately 200,000 households.
Talking Talons Youth Leadership Activities	April-June 2017	An estimated 80 students participated through the Bernalillo County Open Space programs, known as Talking Talons. Through field trips to Carlito Springs Open Space and special outreach events, students focused on watershed education and awareness.
Valle de Oro – Abrazos: A community Celebration of Environmental Justice	April 22, 2017	Approximately 450 people attended and participated in this event. Bernalillo County and AMAFCA cooperated and sponsored a booth that distributed stormwater quality educational information.
Great American Cleanup	April 22, 2017	Bernalillo County organized a Great American Cleanup event at which 100 people registered to volunteer and an estimated 28,000 pounds of trash was collected and cleaned up in Bernalillo County.
Rio Grande Water Festival	April 22, 2017	Approximately 500 people attended and participated in this event. Bernalillo County Water Resources had a booth that distributed stormwater quality educational information. Bernalillo County was a financial sponsor for this event.
Drug Take Back Event	April 25, 2017	Drug Take Back Event, provides city and county employees and others who work in the downtown Albuquerque area with a safe, convenient, and responsible way of disposing of unused, unwanted or expired medications.
2017 Day in Paradise	April 30, 2017	The Day in Paradise is a Community Celebration for Bernalillo County District 4. This free event drew an estimated crowd of 2,000 people and included entertainment, jumpers, games, food trucks and face painting. A booth was set up and provided education and outreach regarding stormwater quality and water conservation.



Public Education Outreach	Date	Successful Outcome
BernCo Natural Resources Services Program – Septic Systems Workshop Series	March 31, May 25, August 18, and Sept. 21, 2017	A series of 4 free workshops focused on stormwater quality and septic systems.
National Weather Service (NWS) Monsoon Season Outreach	June 11 – 17, 2017	Advisory and media event in conjunction with NWS, AMAFCA, COA, SSCAFCA, City of Rio Rancho, Village of Corrales, NMDOT, Sandoval County, ESCAFCA, Los Ranchos, Sandia National Laboratory (DOE). Outreach provided information about stormwater quality during rainy season monsoons. This outreach was covered in the Albuquerque Journal, on KRQE (local TV news), and has an on-line YouTube video through the NWS.
Construction General Permit Training	June 29, 2017	With the MRGSWT, BernCo conducted a training seminar for contractors and engineers on the new 2017 CGP requirements. There were 53 people reached with this training, and 16 MRGSWT members participated in the presentation.

4. Construction

Page 4: Item 4I. What are the 3 most common types of violations documented during this reporting period? Text box in the EPA Annual Report pdf form does not allow enough space to enter complete response. Complete response:

There was one formal violation during this inspection period. There were 16 failed inspections between five sites; all issues were addressed and corrected by the site operator. Typically, if inspectors find any issues/inconsistencies during an inspection, they will inform the site manager and are usually able to resolve the issue without needing enforcement. The three most common issues encountered during inspections include: Stormwater Pollution Prevention Plan (SWPPP) document not located on-site, Best Management Practice (BMP) maintenance issues, and absence of or improperly placed rain gages.

5. Illicit Discharge Elimination

Page 4: Item 5L. How often do municipal employees receive training on the illicit discharge program? Text box in the EPA Annual Report pdf form does not allow enough space to enter complete response. Complete response:

County employees receive training on the illicit detection and discharge elimination program upon hire and certain departments receive annual training specific to their department responsibilities.



6. Stormwater Management for Municipal Operations

Page 4: Item 6A. Have stormwater pollution prevention plans (or an equivalent plan) been developed for? “Other” text box in the EPA Annual Report pdf form does not allow enough space to enter complete response. Complete response:

Procedures are in place in the County’s Pollution Prevention and Good Housekeeping Program document. The Stormwater Program Compliance Manager will continue to coordinate with specific departments to formalize and improve this program.

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

Page 4: Item 7C. 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.)? Text box in the EPA Annual Report pdf form does not allow enough space to enter complete response. Complete response:

All development and re-development projects with land disturbances equal to or greater than one acre, including sites which disturb less than one acre but are part of a larger common plan of development, that discharge into the County’s storm drainage system within the urbanized area of the County, are required to have post-construction water quality BMPs. The County reviews site plans and evaluates the effectiveness of the post-construction BMP based on site conditions. BMPs are inspected upon project completion.

Page 5: Item 7G. How many development and redevelopment project plans were reviewed during the reporting period to assess impacts to water quality and receiving stream protection? Text box in the EPA Annual Report pdf form does not allow enough space to enter complete response. Complete response:

Total number of projects reviewed in FY 2017 = 88

Number of projects reviewed that were greater than 1-acre = 25

8. Program Resources

Page 6: Item 8E. Do you share program implementation responsibilities with any other entities? Text box in the EPA Annual Report pdf form does not allow enough space to enter complete response. Complete response:

Entity	Activity/Task/Responsibility	Your Oversight/Accountability Mechanism
Bernalillo County AMAFCA City of Albuquerque NMDOT-District 3 UNM	MS4 Technical Advisory Group (TAG) – various cooperative activities	Intergovernmental Agreement



Entity	Activity/Task/Responsibility	Your Oversight/Accountability Mechanism
Sandoval County Village of Corrales City of Rio Rancho Village of Los Ranchos Kirtland Air Force Base (KAFB) Town of Bernalillo EXPO NM SSCAFCA ESCAFCA Sandia National Laboratory (DOE)		
Bernalillo County AMAFCA City of Albuquerque NMDOT-District 3 UNM Sandoval County Village of Corrales City of Rio Rancho Los Ranchos de Albuquerque Town of Bernalillo SSCAFCA ESCAFCA	MS4 Compliance Monitoring Cooperative (CMC) – Wet Weather Monitoring	Intergovernmental Agreement
Bernalillo County Los Ranchos de Albuquerque NMDOT AMAFCA	Development Review – Construction and Post-Construction Stormwater Management	Intergovernmental Agreement
Bernalillo County ABCWUA COA AMAFCA NMDOT Village of Los Ranchos	Capacity, Management, Operations and Maintenance (CMOM) Plan Spill Response, emphasis on Fats, Oils and Grease (FOG)	Intergovernmental Agreement
Bernalillo County COA AMAFCA NMDOT	Investigation and resolution of IDDE	Shared without cost allocation
Bernalillo County COA	Household Hazardous Waste Collection Program	Cost share for fixed collection facility
Bernalillo County AMAFCA	GI/LID Impediments Assessment and Report	Shared without cost allocation



Entity	Activity/Task/Responsibility	Your Oversight/Accountability Mechanism
Bernalillo County AMAFCA	Gross Debris Study	Shared without cost allocation
Bernalillo County AMAFCA	Public Involvement Plan	Shared without cost allocation

9. Evaluating/Measuring Progress

Page 6: Item 9A. 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. Text box in the EPA Annual Report pdf form does not allow enough space to enter complete response. Complete response:

Indicator	Began Tracking (year)	Frequency of Evaluation	Number of Locations or Indicator Tracked and FY 2017 Results
Public Education and Outreach, number of people reached.	2014	Variable; several times annually	No. of people reached: FY 2017 = 465,000 people
Mailings with water bills, number of residences reached.	2014	Annually	No. of residences reached: FY 2017 = 1 mailing, 200,000 residences
Septic system issues resolved.	2014	Annually	No. of septic issues resolved: FY 2017 = 331 septic system permits issued, 8 septic systems abandoned
Recycling Waste Diversion Program	2013	Annually	Tons of waste recycled: FY 2017 = 2,386 tons of cans, bottles, cardboard, and paper recycled through this program
Household Hazardous Waste Collection – Cooperative Program with COA	2014	Annually	No. of County participants: FY 2017 = 1,980 participants Program Cost for County: FY 2017 = \$120,780
Household Hazardous Waste Collection – County only Collection Events	2014	Annually	No. of County participants: FY 2017 = 210 participants No. of County events: FY 2017 = 10 events

Page 6: Item 9B. What environmental quality trends have you documented over the duration of your stormwater program? Reports of summaries can be attached electronically, or provide the URL to where they may be found on the web. Text box in



EPA Annual Report pdf form does not allow enough space to enter complete response.
Complete response:

- AMAFCA, with environmental consultant CDM Smith, completed a “Middle Rio Grande E. coli Analysis and Research” project and report in April 2015. This report assembled data collected by the US Geological Survey (USGS), NMED, and the Bosque Environmental Monitoring Program (BEMP) on E. coli in the Middle Rio Grande and analyzed this data to develop the larger picture of E. coli in the Rio Grande (Isleta Pueblo boundary to Alameda Street Bridge) segment.
[http://www.amafca.org/documents/2015_Annual_Report/AMAFCA%202015%20\(Jan%20to%20June\)%20Annual%20Report%20II.A%20-%20VI.pdf](http://www.amafca.org/documents/2015_Annual_Report/AMAFCA%202015%20(Jan%20to%20June)%20Annual%20Report%20II.A%20-%20VI.pdf)
- Bosque Environmental Monitoring Program (BEMP) Invoices & Reports for FY 2016 through FY 2017 (available upon request).
- Earth Force Reports for FY 2016 through FY 2017 (available upon request).
- Given the data (1-year, four samples) collected from the Compliance Monitoring Cooperative (CMC), observable trends have not yet been identified. CMC Monitoring Memos are available upon request.
- Additional supporting data is available up request.

10. Additional Information

Bernalillo County’s Stormwater Management Program (SWMP) Plan is accessible online at: http://admin--bernco.sks.com/uploads/FileLinks/51310850a8cf428cb764d5cb2c93e096/SWMP_FY2016_BerCo_Annual_Report.pdf or available for review upon request. The current SWMP version is Revision 0, December 2016.

Page 6: Item 10. Additional Information. Please attach any additional information on the performance of your MS4 program, including information required in Parts I.C, I.D, and III.B.

10.1 Compliance with Water Quality Standards – PCBs - Part I.C.1.e

The MS4 Permit requires submittal of a proposed PCB strategy to EPA within two (2) years from effective date of permit (December 22, 2016) and submittal of progress reports with the third and subsequent Annual Reports.

In FY 2017, Bernalillo County and USGS began a monitoring program to evaluate the distribution of PCBs. The USGS is currently initiating the monitoring program and is collecting samples for PCB analysis. The USGS progress report is available upon request.



10.2 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)

FY 2017 – Annual Report Progress Report: The MS4 Permit requires an annual progress report on the targeted controls for Escherichia coli (E. coli) bacteria. The segment of the Rio Grande that flows through Albuquerque, designated as Rio Grande NM-2015_50 (Isleta Pueblo boundary to Tijeras Arroyo), also referenced as Rio Grande Basin 20.6.4.105, in the 2016-2018 State of New Mexico Clean Water Act (CWA) 303(d)/305(d) Integrated List and Report, is considered to be impaired because the quality of the water does not support the designated uses for that segment. The amount of E. coli bacteria in the water has been found to exceed the water quality standard, so a Total Maximum Daily Load (TMDL) has been adopted by the New Mexico Water Quality Commission (NMED, 2010). This Annual Report serves as a progress report for the Bernalillo County TMDL Bacteria Program for FY 2017.

Sanitary Sewer Systems: Sanitary sewer systems that run through the County MS4 are owned, operated, and maintained by the Albuquerque Bernalillo County Water Utility Authority (ABCWUA); the County works cooperatively with ABCWUA under their Capacity, Management, Operations, and Maintenance (CMOM) program to address any leaks and/or spills from the sanitary sewer system. Because the County does not own, operate, or maintain the sanitary sewer system, it does not have any specific MS4 Permit measurable goals related to this target area in this SWMP. In FY 2017, the County continued to work cooperatively with the ABCWUA under their CMOM program to address any leaks and/or spills from the sanitary sewer system. The CMOM Annual Report is available upon request.

On-Site Sewage Facilities: Related to targeted controls for on-site sewage facilities, the County administers the septic system permitting program in the unincorporated portions of Bernalillo County under the Bernalillo County Wastewater Ordinance, ensuring the proper disposal of septic waste and proper operation and maintenance of septic systems. The County used its existing Well and Wastewater permitting process to distribute information about proper septic system maintenance to 100 percent of new septic permit holders in FY 2017. Issuance of County septic permits included an information packet with recommended pumping/maintenance schedules and “do’s and don’ts” of septic system care. In addition, the County continued its campaign in FY 2017 to permit 100 percent of unpermitted septic systems. This campaign met its measurable annual goal (contacting a minimum of 200 unpermitted system or aging system owners per year) by contacting an estimated 280 residences in FY 2017 with the intent of verifying status and education regarding proper operation of the systems. As a result of the FY 2017 campaign, 233 properties were resolved (applied for and received permits). Financial assistance was provided to low-income and disadvantaged residents through the Bernalillo County Partners in Improving and Protecting the Environment (PIPE) program. In FY 2017, one septic system was abandoned and one sanitary sewer connection was made; where sanitary sewer was not available, three failing septic



systems were abandoned and three new septic systems were installed. In addition, eight septic systems were vacated in FY 2017.

Bernalillo County septic outreach and educational materials are available on-line: <http://www.bernco.gov/public-works/wastewater-septic-systems.aspx> with additional links available on this webpage. Additional supporting documentation for these programs is available upon request. In addition, Bernalillo County continued evaluation of septic tanks greater than 30 years in age, as required by the amended Wastewater Systems Ordinance: <http://www.bernco.gov/public-works/aging-septic-system-inspections.aspx>.

Illicit Discharges and Dumping:

To address targeted controls for Illicit Discharges and Dumping, Bernalillo County's Illicit Detection and Discharge Elimination (IDDE) program includes efforts that target sources of bacteria, trash and debris, as well as other pollutants. Refer to the SWMP -



Table 6: Illicit Discharges and Improper Disposal and to Section 10.I of this Annual Report for additional information. Bernalillo County has an Illicit Discharge Detection and Elimination Program plan, an illegal dumping website page (<http://www.bernco.gov/illegal-dumping>), illegal dumping ordinance, and reporting hotline (505-314-0310) that includes illicit discharge reporting.

Animal Sources: Bernalillo County addresses targeted controls for reducing pet waste through its public outreach and educational programs and events. Bernalillo County Ordinance, Chapter 6, addresses animal waste disposal. Animal waste complaints are also addressed through zoning enforcement and special use permit review. Bernalillo County pet waste educational materials are available on-line on several web pages:

<http://www.bernco.gov/public-works/stormwater-pet-waste.aspx>

http://www.bernco.gov/uploads/FileLinks/1b856fddafa84b4fa9272b5bd6b5ab41/BC_pet_waste_fact_sheet_1.pdf

http://www.bernco.gov/uploads/FileLinks/1b856fddafa84b4fa9272b5bd6b5ab41/BC_pet_waste_fact_sheet_2.pdf

http://www.bernco.gov/uploads/FileLinks/1b856fddafa84b4fa9272b5bd6b5ab41/BC_pet_waste_fact_sheet_3.pdf

Residential Education: Related to resident education as a targeted control for this program, the County utilized a combination of existing and new educational materials (such as the "Project W.E.T. Kids in Discovery Series" and the Enviroscape watershed



model), County-created brochures, and educational materials and promotional items including pet-waste focused materials from the previous Public Education and Outreach efforts from the prior permit term. Supporting documentation for these programs is available upon request.

The County also uses its website and/or social media as a venue for distributing materials and posts about stormwater quality. The County had one mailing which was included with ABCWUA water bills to County residents in FY 2017 that addressed flooding and Hazardous Waste collection/education (April 2017). The program also utilized existing County processes to provide education on a neighborhood scale through on-going opportunities such as community and neighborhood association meetings and distribution of information through neighborhood newsletters. In FY 2017, monthly “BernCo at a Glance” newsletters were printed and are also available electronically; at least eight of the monthly newsletters contained information related to stormwater. Throughout the reporting period, July 1, 2016, through June 30, 2017, the Bernalillo County Public Outreach programs were able to connect and educate hundreds of thousands of Bernalillo County Residents. Overall, these educational programs and outreach activities conducted by Bernalillo County during this reporting period connected an estimated 465,000 times with County residents through their outreach programs. This outreach is estimated from Bernalillo County website, monthly newsletters, ABCWUA mailing inserts, and various public events results. Additional information is provided in Section 10.K of this Annual Report and in the Annual Report Annotations, 3. Public Education and Public Participation section of this attachment.

Available E. coli Monitoring Data: AMAFCA, with environmental consultant CDM Smith, completed a “Middle Rio Grande E. coli Analysis and Research” project and report in April 2015. This report assembled data collected by the US Geological Survey (USGS), NMED, and BEMP on E. coli in the Middle Rio Grande –and analyzed this data to develop a larger picture of E. coli in the Rio Grande (Isleta Pueblo boundary to Alameda Street Bridge) segment. This report also compares the Rio Grande, in terms of E. coli, to other rivers. The report addresses the basis of the E. coli water quality standard, provides a summary of findings regarding how the federal objectives were derived, and discusses the applicability of the federally recommended bacteria objectives to waterbodies. Finally, the report describes the Best Management Practices (BMPs) that have been used to remove E. coli from stormwater. The use of warning-type BMPs is examined for possible use in the Albuquerque area. The E. coli loading and load allocation calculations, related to the CMC monitoring program, are available upon request for the cooperative monitoring completed in FY 2017.

Stormwater Monitoring: Finally, in this program to address targeted controls for E. coli, the County is conducting 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 the SWMP and of this Annual Report (Item 10.M). During FY 2017, the cooperative monitoring program



established in FY 2016 began sampling and collected four of the seven required MRG MS4 Permit required samples during FY 2017.

10.3 Discharges to Impaired Waters Without Approved TMDLs - Part I.C.2.b.(ii) and TABLE 1.b - TMDL Nutrient Program- Part I.C.2.b.(iii)

The 2016-2018 State of New Mexico CWA 303(d)/305(d) Integrated List and Report identifies the Tijeras Arroyo Assessment Unit – Four Hills Bridge to Headwaters as impaired for nutrients. Bernalillo County, in cooperation with COA and NMDOT, continued to voluntarily participate in the Pre-TMDL Cooperative Nutrient Study for Tijeras Arroyo. The results of these studies will be used to guide the overall program plan and goals. For the reporting period for year two of this study, sample results show generally low concentrations for nutrient-related constituents of concern. Samples were collected during dry weather and wet weather. Based on an evaluation of the geographic area and data collected for baseline and year two sampling, it is likely that the stormwater discharges from the MS4 are not a significant source of nutrients. Results from year two of this study were submitted to NMED by December 1, 2017.

In FY 2017, public education and outreach targeting fertilizer (nutrient source) continued to be included in several Bernalillo County brochures. Additional supporting documentation is available upon request.

In FY 2017, Bernalillo County became involved with the Tijeras Creek Watershed Collaborative (TCWC) which meets regularly to discuss the watershed and restorative work for the Tijeras Creek. In 2017, the group completed the “Tijeras Creek Ecological Monitoring Report, 2017”. The monitoring was collaboratively designed by staff from Arid Land Innovation, The Nature Conservancy, Ecotone Landscape Planning, and Adaptive Terrain Systems. The monitoring was conducted by staff from Talking Talons Youth Leadership.

Also in FY 2017, Bernalillo County began a septic system initiative targeting residents within the upper Tijeras Arroyo watershed. Bernalillo County held four Septic System Workshops in 2017. The purpose of these workshops was to address unpermitted septic systems and to give home owners information about how to care for septic systems as well as County requirements for evaluation of on-site residential wastewater systems that are more than 30 years old.

10.4 Endangered Species Act (ESA) Requirements -Dissolved Oxygen (DO) Strategy in the Receiving Waters of the Rio Grande - Part I.C.3.a

For this part of the MS4 Permit, Bernalillo County is providing in this section of the Annual Report a summary of findings and a summary of activities undertaken under Part I.C.3.a.(i) of the MS4 Permit for FY 2017. The SWMP, submitted with last year’s Annual Report, also includes descriptions of controls implemented (and/or proposed controls to be implemented) along with corresponding measurable goals. Bernalillo County’s Stormwater Management Program (SWMP) Plan is accessible online at:



http://www.bernco.gov/uploads/FileLinks/51310850a8cf428cb764d5cb2c93e096/SWMP_FY2016_BernCo_Annual_Report.pdf or available for review upon request. The current SWMP version is Revision 0, December 2016.

In FY 2017, no specific structural elements, topographical and/or geographical formations, or County operations have been identified as contributing to reduced DO in the receiving waters of the Rio Grande within the jurisdictional area.

Structural elements within County facilities that address potential low DO include a duckbill check valve stormwater outlet for the Sanchez Farms outfall and release of stormwater into the Bosque prior to outfall into the Rio Grande. Where stormwater is released into the Bosque upstream of the Rio Grande, stormwater flows rarely make it to the river and instead spread, slow, and infiltrate in the Bosque.

The County also addressed pollutants that have the potential to affect stormwater quality (including pollutants that affect DO levels) in FY 2017 through public education and outreach, the sediment pollutant load reduction strategy, construction and post-construction requirements, pollution prevention and good housekeeping program, and the wastewater permitting process to address and regulate septic systems. See the applicable sections of the Annual Report for additional information.

10.5 Endangered Species Act (ESA) Requirements -Sediment Pollutant Load Reduction Strategy - Part I.

FY 2017 – Annual Report Progress Report:

This section of the Annual Report serves as Bernalillo County's annual assessment of the progress for this program. In FY 2017, the County tracked and estimated the volume of sediment removed from each stormwater facility.

Approximately 120 cubic yards (55.2 tons) of sediment, trash, and vegetation was removed from County catch basins, wet wells, and storm sewer lines.

Approximately 574 cubic yards of debris including sediment, vegetation, and trash were removed from County ponds, channels, and right-of-ways.

Approximately 2,064 cubic yards of material were dredged or used for re-profiling and erosion repair during earth moving activities.

10.6 Construction Site Stormwater Runoff Control - Part I.D.5.a

FY 2017 – Annual Report Progress Report:

This section of the Annual Report assesses and documents the success of this program and includes the MS4 Permit required reporting. The County's program was successful in that 100 percent of all construction projects cumulatively disturbing one (1) or more acres as required in Part I.D.a.(iii) were inspected in FY 2017.



The frequency of site reviews = On average, three site inspections are conducted for each project. A minimum of one inspection occurs with as many as five inspections, depending on the duration and complexity of the construction project.

Number of site inspections = 53 (100 percent of sites)

Number of enforcement activities = 1

The cumulative number of site inspections and enforcement activities over the MS4 Permit term are:

Cumulative Number of site inspections = 78 (100 percent of sites)

Cumulative Number of enforcement activities = 2

In FY 2017, there were several opportunities to incorporate GI/LID/sustainable practices. These opportunities are based on commercial sites permitted (this includes renovation, tenant improvements, antennas for telecommunications, and units from strip mall areas).

10.7 Post-Construction Stormwater Management in New Development and Redevelopment- Part I.D.5.b

The MS4 Permit for this section requires that the following information be included in each Annual Report:

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

Section 7 of the EPA Annual Report Form includes this information for FY 2017.

A cumulative listing of the annual modifications made to the Post-Construction Stormwater Management Program.

In February 2016, Bernalillo County began requiring a Stormwater Post-Construction Evaluation form for all 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. This form requires the applicant to evaluate opportunities for the use of Green Infrastructure/Low Impact Development (GI/LID) techniques in the site design. This form is available on-line:

http://www.bernco.gov/uploads/FileLinks/590808d5c7dd4e0cbfaf3009cf1affb9/STORMWATER_POST_CONSTRUCTION_RECOMMENDATIONS_SITE_EVALUATION_NEW_MS4.pdf.

In June 2017, Bernalillo County enacted a stormwater quality ordinance that addresses post construction stormwater management.



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.

In FY 2017, Bernalillo County did not have any retrofit improvements. Cumulatively, during the WSB MS4 Permit term, the County has installed an inlet retrofit for the Adobe Acres stormwater facility to improve water quality. The County also included drainage improvements and retrofits with other construction work, such as road improvement projects. The Vista del Rio Road improvement project includes drainage improvements along the public right of way as well as a new detention pond to accommodate additional stormwater runoff volume. Other improvement projects (IP) that are in planning or construction phases and include drainage improvements are the Sunset Road IP, Second Street SW Corridor IP, Tower Road SW Roadway and Utility Improvement, Goff Boulevard Improvements, Sunset Gardens Road, Woodward Road IP, and the Alameda Drain Trail Project, among others.

In FY 2017, the County continued to meet with MS4s to discuss areas requiring drainage and water quality retrofits, project priorities, and multi-agency funding. The County's membership and involvement in the cooperative MS4 Technical Advisory Group (MS4 TAG) facilitates this cooperation and coordination with other MS4s in the Middle Rio Grande. In FY 2017, Bernalillo County participated in AMAFCA led Project Schedule meetings, where AMAFCA, NMDOT, Bernalillo County, COA, UNM, Middle Rio Grande Conservancy District (MRGCD), and Los Ranchos met to discuss and prioritize projects, including ranking of water quality facilities.

As required in Part I.D.5.b.(vi), report the tabulated results for Impervious Area (IA) and Directly Connected Impervious Area (DCIA) and its estimation methodology.

A GIS study was completed by Bernalillo County to estimate the impervious area (IA) in Bernalillo County and within the Middle Rio Grande MS4 Area/Albuquerque Urbanized Area (UA). Bernalillo County worked cooperatively on this Permit activity during FY 2017 by sharing GIS information with other MS4s. The GIS study used land use codes, land use categories, and percent impervious fields.

The impervious area for unincorporated Bernalillo County within the UA is approximately 10,393 acres. The directly connected impervious area (DCIA) is 0 acres.

10.8 Pollution Prevention/Good Housekeeping for Municipal/Co-permittee Operations – Part I.D.5.c

Bernalillo County continued to maintain BMPs in place for minimizing impacts to stormwater quality from the County equipment and vehicle maintenance yards, as well as BMPs that address other County facilities/activities, including maintenance and parks and recreation.



Bernalillo County continued to work cooperatively with the COA to maintain the Household Hazardous Waste Collection Center and continued to conduct public household hazardous waste collection events. Approximately 2,190 Bernalillo County residents and 10,800 City of Albuquerque residents participated in the Hazardous Waste Collection Programs.

Included in this FY 2017 Annual Report, as required by the MS4 permit, is a cumulative summary of retrofit evaluations conducted during the permit term on existing flood control devices, structures and drainage ways to benefit water quality. In FY 2017, there were no Bernalillo County retrofit improvement projects completed – refer to Section 10.G for the cumulative summary of retrofits. Bernalillo County continued to utilize a stormwater control ranking process to schedule and prioritize stormwater projects and continued to incorporate stormwater quality BMPs into all new flood control projects when feasible. In FY 2017, Bernalillo County participated in AMAFCA led Project Schedule meetings, where AMAFCA, NMDOT, Bernalillo County, COA, UNM, Middle Rio Grande Conservancy District (MRGCD), and Los Ranchos met to discuss and prioritize projects, including ranking of water quality facilities. The 2018 Project Schedule – Planned Water Quality Facilities report is provided as Attachment 3 to this Annual Report.

Other sections on this Annual Report discuss relevant elements of this Control Measure, including Illicit Discharge and Improper Disposal (Section 10.I), Control of Floatables (Section 10.J), and Public Education and Outreach (Section 10.K).

10.9 Illicit Discharges and Improper Disposal - Part I.D.5.e

The County continued its education program to promote, publicize, and facilitate public reporting of illicit connections or discharges, and distribution of outreach materials. Additional information is available in the Public Education and Outreach Section, of this Annual Report. Bernalillo County has an illegal dumping website page (<http://www.bernco.gov/illegal-dumping>), illicit discharge website page (<http://www.bernco.gov/public-works/illicit-discharge-.aspx>), and hotline (505-314-0310) that includes illicit discharge reporting. Bernalillo County continued to use an electronic database for tracking IDDE complaints.

The County's IDDE Program Plan includes procedures for outfall screening. The timing of outfall screening is important to consider when scheduling field days. Given the arid climate of this region, outfall inspections can be conducted during the wet or dry seasons, and should have an antecedent dry period of at least 72 hours after a rain event greater than 0.1 inch in magnitude. Outfall and outlet locations are screened annually in November and December. During annual screening, field personnel will record observations on an outfall monitoring form and collect photographs. If discharges from outfall locations are observed during screening, samples will be collected as described in the IDDE Program Plan.



In FY 2017, the County completed a review of the IDDE complaint records. This information is available upon request. As a program enhancement, Bernalillo County, in conjunction with USGS and AMAFCA, plan to install additional rainfall gauges in the South Valley and the Upper Tijeras Watershed in FY 2018 to better understand runoff and evaluate monitoring locations and needs. The County also worked cooperatively with AMAFCA, COA, NMDOT, and the ABCWUA (through CMOM) for notification of illicit discharges. The County continued evaluating its Illicit Discharge Detection and Elimination (IDDE) program and is utilizing methodologies consistent with “Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments” as appropriate.

10.10 Control of Floatables Discharges - Part I.D.5.f

This section of the Annual Report serves as Bernalillo County’s annual assessment of the progress for this program. In FY 2017, the County tracked and estimated the volume of floatables and trash removed from each stormwater control facility.

Approximately 120 cubic yards (CY) of trash, debris, and vegetation was removed from County catch basins, wet wells, and storm sewer lines.

Approximately 574 CY of general debris was removed from County ponds, channels, and right-of-ways. In addition, approximately 2,064 CY of earth moving activity occurred in FY 2017 in channels and ponds (dredging, reprofiling, and erosion repairs).

The composition of floatables and gross pollutants is considered consistent with the updated 2016 AMAFCA/Bernalillo County Gross Pollutant. Using the 2016 study’s waste characterization percentages, qualities of wood, rock (greater than 1-inch), plastics, metals and paper were estimated. The waste characterization determination is summarized in the table below:

Trash & Debris Total Volume Removed (CY)	Wood, 42.9 %	Rock > 1”, 38.5%	Plastic, 16.5%	Metals, 1.6%	Paper, 0.5%
694 CY	298 CY	182 CY	61 CY	5 CY	11 CY

10.11 Public Education and Outreach on Stormwater Impacts - Part I.D.5.g

FY 2017 Public Education and Outreach activities are listed in the table in Section 3 of this Annotation to Annual Report. To summarize, throughout the reporting period, July 1, 2016, through June 30, 2017, the Bernalillo County Public Outreach programs were able to connect and educate thousands of Bernalillo County Residents. Overall, these educational programs and outreach activities conducted by Bernalillo County during this reporting period connected an estimated 465,000 times with County residents through



their outreach programs. This outreach is estimated from Bernalillo County website, monthly newsletters, mailing inserts, and various public events results.

The County launched its Bernalillo County Greenprint website highlighting its community-driven conservation plan (<http://web.tplgis.org/bernco/>). The purpose of the Greenprint is to guide where public funds should be spent to protect open space and farmland and expand access to local parks and trails throughout Bernalillo County. The Story Map allows users to see the areas and efforts that protect water quality in rivers and streams. The mapping portal provides an on-line interactive map of County water quality infrastructure. As part of the Greenprint process, areas where natural recharge occurs within the Rio Grande Basin were mapped. These areas are considered high priority areas for protection in the Greenprint.

The County continued to utilize a combination of existing and new educational materials (such as the “Project W.E.T. Kids in Discovery Series” and the Enviroscape watershed model), County-created brochures, and/or other educational materials and promotional items. The County also uses its website and social media as a venue for distributing materials and posts about water quality. Additional documentation related to these materials is available upon request.

In FY 2017, the County met its measurable goal of generating a minimum of one mailing annually to residents of unincorporated Bernalillo County addressing one or more of the following topics on a rotating basis: illicit discharge reporting, proper disposal of household hazardous waste including lawn and garden chemicals and used motor oil, FOG, animal sources/pet wastes, litter control, and public participation in the MS4 process. In FY 2017, one (1) ABCWUA mailings occurred related to household hazardous waste and general stormwater/flood education. In addition to the ABCWUA mailings, the County provided monthly “BernCo at a Glance” newsletters to residents (mailed and electronic delivery) which also focused on pet waste and stormwater education. Additional documentation is available upon request.

The Valle de Oro National Wildlife Refuge represents a significant local riparian restoration area for the County for stormwater education and outreach. In FY 2017, the County continued to sponsor and support events to educate and involve members of the community about local riparian restoration and clean-up opportunities at the refuge each year of the permit term.

The Stormwater Program Compliance Manager also began presenting Bernalillo County Internal Pollution Prevention/Good Housekeeping Trainings to departments. In FY 2017, eight department presentations, to a total of 52 employees, were given.

10.12 Public Involvement and Participation - Part I.D.5.h

The County continued to provide public accessibility of the current SWMP and Annual Report online via the Internet and during normal business hours at the Bernalillo County



Public Works main office for public inspection and copying consistent with any applicable federal, state, tribal, or local open records requirements. Bernalillo County adhered to the MS4 Public Notice requirements in Part III.B and provided at least 45-days public notice for this draft Annual Report, allowing public input to be considered before submitting the final Annual Report.

Bernalillo County reviewed the program requirements listed in Public Involvement and Participation Control Measure of the MS4 Permit for the program elements during the Annual Report process. In addition, as part of the Annual Report process, the Stormwater Program Manager reviewed the program requirements and determined that the overall existing program is effective. Some of the MS4 Permit requirements in this section overlap with the Public Education and Outreach Control Measure (refer to Section 10.K in this report). For example, opportunities to utilize volunteers and assessment of public behavioral change following a public education event are part of the Public Education and Outreach program.

In FY 2017, Bernalillo County and AMAFCA worked cooperatively to create a written Public Involvement and Participation Plan. This plan outlines focus groups for involvement and participation as well as specific target areas of the watershed, audiences, and pollutants that will be focused on in FY 2018. The Plan is meant to be a living document and will be updated and evaluated as the program progresses.

Bernalillo County continued to include in its public involvement and participation program: funding groups that include public participation, such as Valle de Oro National Wildlife Refuge (NWR), Bernalillo County Master Naturalist Program, Youth Corps programs, and the Bosque Ecosystem Monitoring Program (BEMP). The County also provides an IDDE hotline reporting phone number and website. In addition, the County is a member of the Water Protection Advisory Board (WPAB), allowing involvement with the ABCWUA, the COA, other Board participants, and the public. At the September 9, 2016, WPAB board meeting, the County gave two presentations regarding the MS4 Permit. In addition, the WPAB was provided with a copy of the Bernalillo County MS4 Annual Report (November 2016) for review and comments.

10.13 Wet Weather Monitoring Program - Part III.A.1

During this FY 2017 Annual Report reporting period, sampling began for the cooperative monitoring program following the monitoring scheme that was approved by EPA and NMED in June 2016. Monitoring plan information is available upon request. The Compliance Monitoring Cooperative (CMC) collected four (4) of the seven (7) required samples for the WSB MS4 Permit Wet Weather Monitoring. Seven (7) samples are required during the 5-year Permit term, so this is significant progress for the CMC. With the FY 2017 samples, the CMC has met the required Permit minimum of monitoring three (3) events during the wet season and has obtained one (1) of the two (2) events required in the dry season.



Attachment 1
Discharge Monitoring Reports (DMRs) for
Middle Rio Grande Urban Area



County of Bernalillo
State of New Mexico

Technical Services Department

2400 Broadway SE, Building N
Albuquerque, New Mexico 87102
Office: (505) 848-1500 Fax: (505) 848-1510
www.bernco.gov

August 9, 2017

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

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

Dear Mr. Lovato,

As you are aware, twelve of the permittees under NPDES Permit No. NMR04A000 (Permit) have entered into a cooperative agreement for the performance of permit-mandated water quality monitoring. Currently, results from the samples taken during monitoring events are shared among the twelve members of the Compliance Monitoring Cooperative (CMC) and must be entered by each entity into the netDMR database individually, creating twelve identical (barring typos or other data entry error) records. This is clearly inefficient, at best.

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

Therefore, Bernalillo County hereby delegates authority for data entry and approval of sampling results into netDMR to AMAFCA for the purposes of compliance with Permit requirements. Please provide us notification of the completion of data entry via email for our records.

In the event that AMAFCA becomes unable to perform this function on behalf of Bernalillo County, please notify me a minimum of 60 days prior to the deadline for date entry so that we may arrange to perform this function internally.

If you have any questions or need any clarification regarding this letter, please feel free to contact me at kbronson@bernco.gov or at 505-848-1544. Thank you again for your willingness to perform this operation on behalf of the membership of the CMC.

Kali Bronson
Stormwater Program Compliance Manager, Bernalillo County

Jerry Lovato, P.E.
Executive Director, AMAFCA

COMMISSIONERS

Debbie O'Malley, Chair, District 1 *Steven Michael Quezada, Vice Chair, District 2*
Maggie Hart Stebbins, Member, District 3 *Lonnie C. Talbert, Member, District 4* *Wayne A. Johnson, Member, District 5*

ELECTED OFFICIALS

Tanya R. Giddings, Assessor *Linda Stover, Clerk* *Willow Misty Parks, Probate Judge* *Manuel Gonzales III, Sheriff* *Nancy M. Bearce, Treasurer*

COUNTY MANAGER

Julie Morgas Baca



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

RECEIVED APR 25 2017

APR 10 2017

CERTIFIED MAIL – RETURN RECEIPT REQUESTED: 7014 0150 0000 2454 3244

Mr. Dave Gatterman, P.E.
Southern Sandoval County
Arroyo Flood Control Authority
1041 Commercial Dr. S.E.
Rio Rancho, NM 87124

Re: Request for Delegation of Entering Data

Mr. Gatterman:

Thank you for your email of February 8, 2017, requesting that the Middle Rio Grande member for entering monitoring events data into NetDMR on behalf of the other members. It is our understanding that Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) will be the member who will be inputting the data. EPA approves CMC's request for the delegation because it is efficient and not duplicative. While we approve the CMC's request for the delegation, EPA would like to emphasize a few items.

EPA's NPDES Permits and TMDLs Branch has pointed out that AMAFCA has certain obligations:

- If AMAFCA agrees to enter monitoring events data on the permittees' (CMC member entities) behalf, this should be memorialized in a Memorandum of Agreement (MOA) or its equivalent. AMAFCA must maintain this obligation as part of their SWMP description and it should also be incorporated into the AMAFCA's SWMP.
- The CMC's SWMPs should also indicate that AMAFCA is responsible for implementing this action.

EPA's Water Enforcement Branch would also like to highlight Part I D.3.b of the Middle Rio Grande MS4 Permit requirements regarding Shared Responsibility and cooperative Programs, and Part IV.A of the MS4 Permit regarding Standard Permit Conditions and Duty to Comply.

- **Part I D.3.b** states that Implementation of the SWMP may be achieved through participation with other permittees, public agencies, or private entities in cooperative efforts to satisfy the requirements of Part I. D in lieu of creating duplicate program elements for each individual permittee, only if:

“(c) The permittee remains responsible for compliance with the permit obligations if the other entity fails to implement the control measure component.”

- **Part IV A** states that the permittee(s) must comply with all conditions of this permit insofar as those conditions are applicable to each permittee, either individually or jointly. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action.

As stated above, please note that each permittee is responsible for meeting its own permit obligations. If you have any questions, please contact Robert Houston, Special Projects Section Chief, at (214) 665-8565.

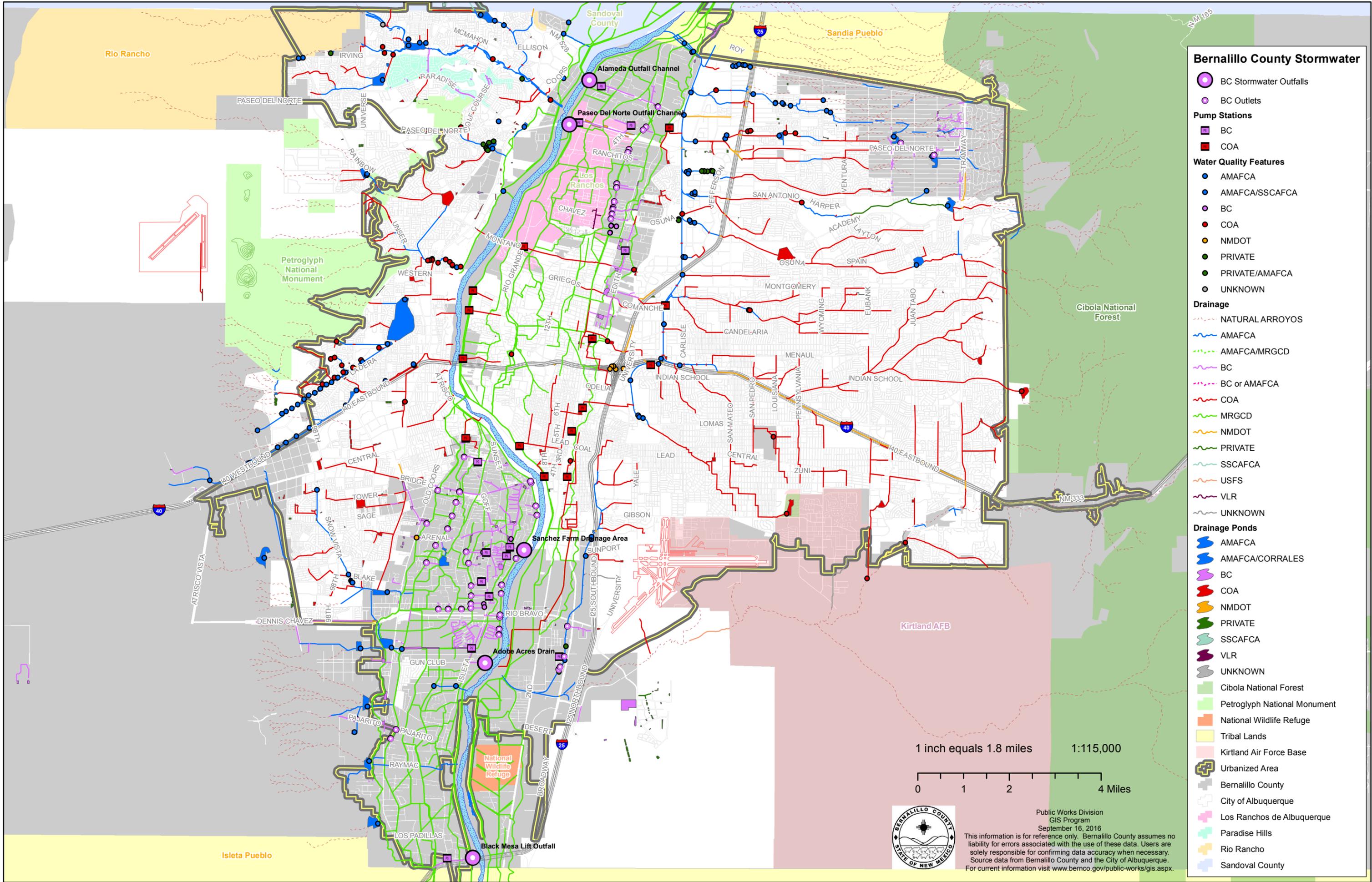
Sincerely,

A handwritten signature in black ink, appearing to be 'C. Seager', with a long horizontal flourish extending to the right.

Cheryl T. Seager
Division Director
Compliance Assurance and
Enforcement Division



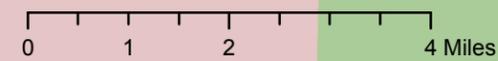
Attachment 2
Bernalillo County Stormwater Facilities Map



Bernalillo County Stormwater

- BC Stormwater Outfalls
- BC Outlets
- Pump Stations**
- BC
- COA
- Water Quality Features**
- AMAFCA
- AMAFCA/SSCAFCA
- BC
- COA
- NMDOT
- PRIVATE
- PRIVATE/AMAFCA
- UNKNOWN
- Drainage**
- NATURAL ARROYOS
- AMAFCA
- AMAFCA/MRGCD
- BC
- BC or AMAFCA
- COA
- MRGCD
- NMDOT
- PRIVATE
- SSCAFCA
- USFS
- VLR
- UNKNOWN
- Drainage Ponds**
- AMAFCA
- AMAFCA/CORRALES
- BC
- COA
- NMDOT
- PRIVATE
- SSCAFCA
- VLR
- UNKNOWN
- Cibola National Forest
- Petroglyph National Monument
- National Wildlife Refuge
- Tribal Lands
- Kirtland Air Force Base
- Urbanized Area
- Bernalillo County
- City of Albuquerque
- Los Ranchos de Albuquerque
- Paradise Hills
- Rio Rancho
- Sandoval County

1 inch equals 1.8 miles 1:115,000

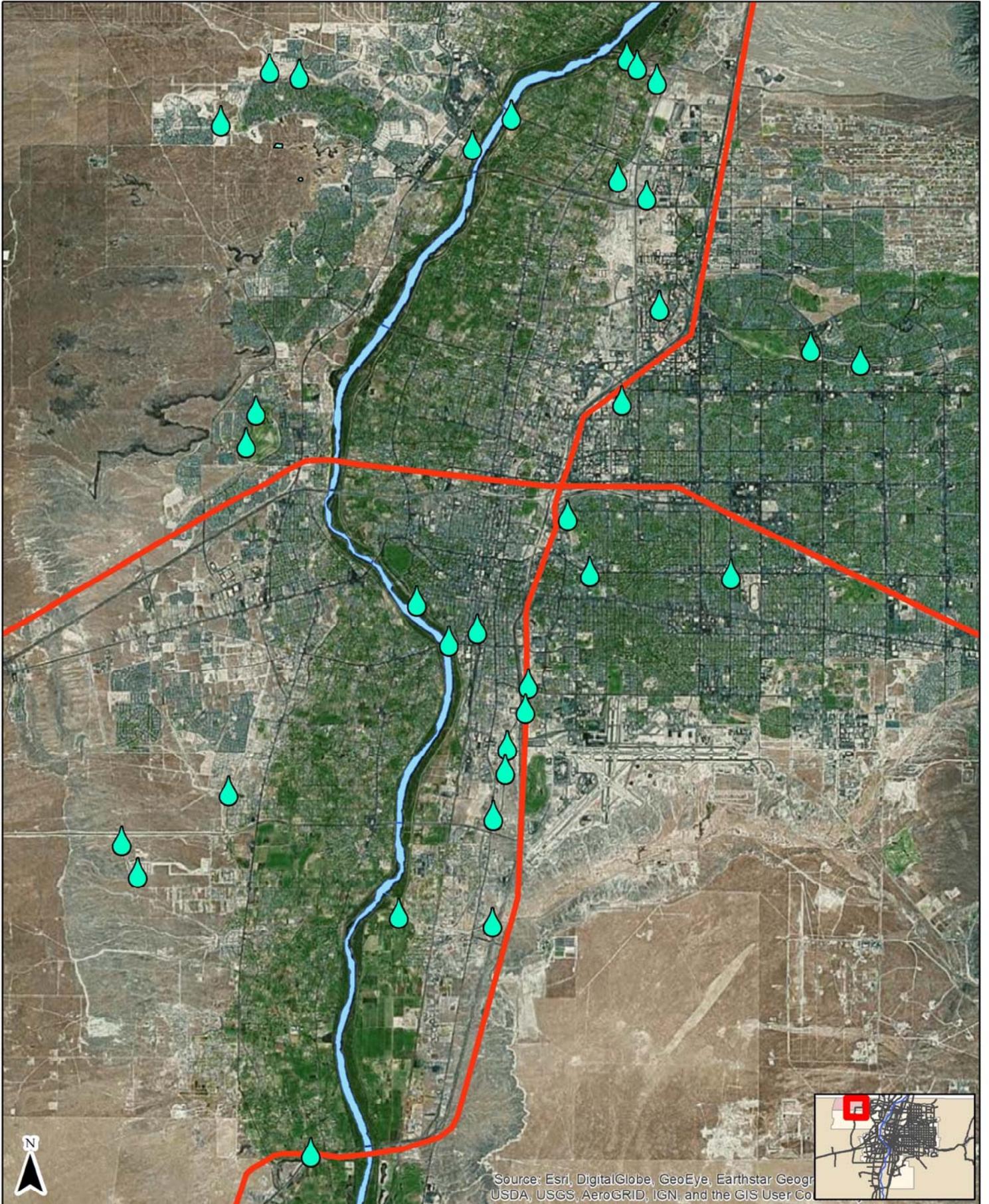


Public Works Division
GIS Program
September 16, 2016
This information is for reference only. Bernalillo County assumes no liability for errors associated with the use of these data. Users are solely responsible for confirming data accuracy when necessary. Source data from Bernalillo County and the City of Albuquerque. For current information visit www.bernco.gov/public-works/gis.aspx.

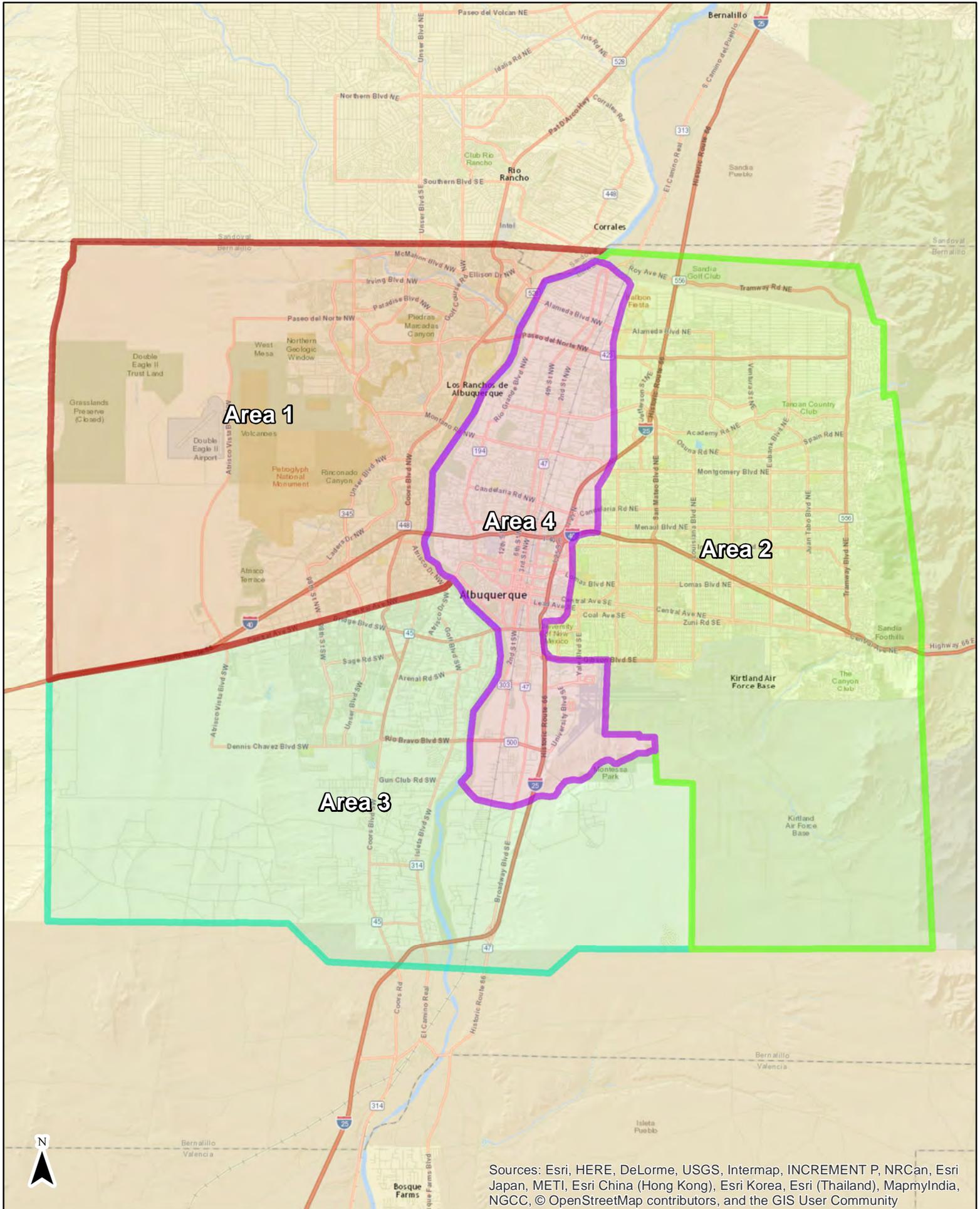


Attachment 3
2018 Project Schedule – Planned Water Quality Facilities

2018 AMAFCA Project Schedule Planned Water Quality Facilities



AMAFCA 2018 Project Schedule Areas



Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community



AMAFCA Calendar Year 2018 Project Schedule

Staff Team Meeting Schedule and Areas of Coverage

Meeting Date	Area
Tuesday, April 4, 2017 9:00 a.m.	Northwest quadrant: North of Central Avenue and west of Rio Grande (the river)
Tuesday, May 2, 2017 9:00 a.m.	East side upland area that drain to: AMAFCA North Diversion Channel AMAFCA South Diversion Channel north of Gibson KAFB and upper Tijeras Arroyo
Tuesday, June 6, 2017 9:00 a.m.	Southwest quadrant: South of Central Avenue and west of Rio Grande (the river) and far SE area south of Tijeras Arroyo
Thursday July 6, 2017 9:00 a.m.	North Valley Mid Valley: SE Valley north of the Tijeras Arroyo.

All meetings to be held at:
 AMAFCA office
 2600 Prospect N.E.
 Albuquerque, New Mexico 87107
 884-2215



AMAFCA Calendar Year 2018 Project Schedule

Tech Team Meeting Schedule and Areas of Coverage

Meeting Date	Area
Tuesday, April 25, 2017 9:00 a.m.	Northwest quadrant: North of Central Avenue and west of Rio Grande (the river)
Tuesday, May 23, 2017 9:00 a.m.	East side upland area that drain to: AMAFCA North Diversion Channel AMAFCA South Diversion Channel north of Gibson KAFB and upper Tijeras Arroyo
Tuesday, June 27, 2017 9:00 a.m.	Southwest quadrant: South of Central Avenue and west of Rio Grande (the river) and far SE area south of Tijeras Arroyo
Tuesday, August 1, 2017 9:00 a.m.	North Valley Mid Valley: SE Valley north of the Tijeras Arroyo.

All meetings to be held at:
 AMAFCA office
 2600 Prospect N.E.
 Albuquerque, New Mexico 87107
 884-2215



GENERAL MEETING AGENDA

Subject: 2018 AMAFCA Project Schedule Tech Team

Location: Area X

Date: See Tech Team Meeting Schedule

Time: 9:00 a.m.

Chair:

Attendees: See Meeting Sign-in

AGENDA

Welcome - Purpose

Introduction by Attendees

Project review

Additions/Deletions

Next Meeting

Project Schedule Water Quality Facility Scoring Criteria

Total project cost will ultimately determine the feasibility of a proposed project. As such, projects will be scored based on their total estimated project cost. The point scale below describes how points are assigned based on total project cost.

Total Cost	Points
Less than \$500K	2
Greater than \$500K but less than \$1M	1
Greater than \$1M	0

Location along a flow path to the Rio Grande was also taken into consideration when assigning points to each project. Projects are scored higher if they are the only stormwater quality facility along the flow path to the Rio Grande, and lower if there is a facility(ies) above or below the proposed project. The point scale below describes points are assigned based on this location.

Flow path to the Rio Grande	Points
Project only WQ Facility	3
Project downstream of existing WQ Facility	1
Project Upstream of existing WQ Facility	1

If a stormwater quality facility is located within the Bosque - the forested area surrounding the riparian zone of the Rio Grande floodplain - the project was awarded a "bonus" for being the ultimate water quality control measure before stormwater reaches the Rio Grande. The point scale below describes how the bonus points were assigned based on the above criteria.

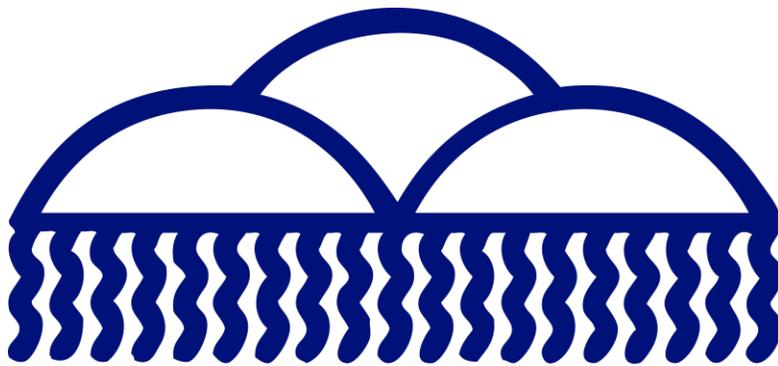
"Bosque Bonus"	Points
Within Bosque	2
Not Within Bosque	0

Total Points Scale: 1-7

Project Schedule Water Quality Facility Scoring - All Areas

Name	Total Cost	WQ in RG Flow path	Cost Points	"Flow Path" Points	"Bosque Bonus"	Total Points
Alcalde Pump Station Outfall WQ	\$ 419,000	Only WQ Facility	2	3	2	7
Barelas Pump Station Outfall WQ	\$ 419,000	Only WQ Facility	2	3	2	7
Airport Arroyo Water Quality Enhancement	\$ 251,000	Only WQ Facility	2	3	0	5
Black Mesa Water Quality	\$ 874,000	Existing WQ Above	1	1	2	4
Max's Inlet Water Quality	\$ 745,000	Only WQ Facility	1	3	0	4
Railyard Water Quality	\$ 745,000	Only WQ Facility	1	3	0	4
Calabacillas/Corrales SWQ Facility	\$ 1,406,000	Existing WQ Above	0	1	2	3
Las Ventanas Dam WQ Upgrades	\$ 425,000	Existing WQ Below	2	1	0	3
Quick Water WQ	\$ 326,000	Existing WQ Below	2	1	0	3
Rinconada WQ	\$ 294,000	Existing WQ Below	2	1	0	3
Clifford Channel Water Quality	\$ 475,000	Existing WQ Below	2	1	0	3
NDC Outfall Storm Water Quality (Debris Fence)	\$ 1,037,000	Existing WQ Above	0	1	2	3
Bear Arroyo WQ	\$ 400,000	Existing WQ Below	2	1	0	3
Upper Bear WQ	\$ 200,000	Existing WQ Below	2	1	0	3
Paakweree WQ	\$ 50,000	Existing WQ Below	2	1	0	3
S 118th Sediment Facility	\$ 279,000	Existing WQ Above	2	1	0	3
South Diversion Channel Outfall Water Quality	\$ 1,134,000	Existing WQ Above	0	1	2	3
North Edith Pump Station Water Quality	\$ 277,000	Existing WQ Below	2	1	0	3
Campus Wash SWQ Facility	\$ 995,000	Existing WQ Below	1	1	0	2
Geneiva's Inlet Water Quality	\$ 996,000	Existing WQ Below	1	1	0	2
NDC Outfall Storm Water Quality (Floating Boom)	\$ 976,000	Existing WQ Below	1	1	0	2
Racetrack Pond Water Quality	\$ 820,000	Existing WQ Below	1	1	0	2
Unser Storm Drain WQ	\$ 2,086,000	Existing WQ Above	0	1	0	1
Swinburne Dam Regional WQ & Sediment Facility	\$ 1,900,000	Existing WQ Below	0	1	0	1
Bear Canyon Mid Channel Baffle Chute Bypass SWQF	\$ 1,120,000	Existing WQ Below	0	1	0	1
Fairgrounds Water Quality Pond/SD Mod	\$ 4,913,000	Existing WQ Below	0	1	0	1
Hahn Inlet/Comanche Pond Water Quality	\$ 2,006,000	Existing WQ Below	0	1	0	1
NDC Outfall Storm Water Quality (Propane)	\$ 1,055,000	Existing WQ Below	0	1	0	1
North Diversion Channel/Indian School WQ Pond	\$ 2,521,000	Existing WQ Below	0	1	0	1
Amole Del Norte Inlet WQ	\$ 500,000	Existing WQ Below	2	1	0	3
Tijeras Sediment Facility Phase 2	\$ 2,885,000	Existing WQ Below	0	1	0	1
Kirtland Inlet Water Quality	\$ 1,240,000	Existing WQ Below	0	1	0	1
SDC Broadway GC Storm Water Quality Facility	\$ 2,849,000	Existing WQ Below	0	1	0	1

AMAFCA 2018 Project Schedule



Area 1

Name	Location	Type	Description	Approximate Size	Lead Agency	Reference	Map Page	Assessment	District	Total Cost	AMAFCA Cost	Partners	Design FY	Const FY
102nd St Storm Drain		SP		36	Private	Amole Hubbell DMP	MAP 11	D	2	\$ 991,000.00	\$ -		0	0
106th St Storm Drain		SP		54"	Private	Amole Hubbell DMP	MAP 11	D	2	\$ 1,392,000.00	\$ -		0	0
110th St Storm Drain		SP		54"	Private	Amole Hubbell DMP	MAP11	D	2	\$ 1,425,000.00	\$ -		0	0
314 Basin/Park Pond, Lyon Ph II	Paradise Blvd 2000' W of Lyon	DB	Detention basin & WQ	30 AF	BC	PMCRD#01	MAP 2	C	2	\$ 1,184,000.00	\$ -		0	0
Amole del Norte EAP		R1			COA		MAP 12	C	2	\$ 150,000.00	\$ -		0	0
Amole del Norte Pond Spillway Relocation		DB	Relocate pond spillway to south side		COA		MAP 12	C	2	\$ 727,000.00	\$ -		0	0
Basin 302/304 Interception Channel	Basin 302 to escarpment	CS	Interception channel	20' wide	Private	PMCRD#01	MAP 2	D	2	\$ 653,000.00	\$ -		0	0
Basin EA.11 Dam	West of Ladera Dam 0	DD	Detention dam		Private	West I-40 DMP Update	MAP 11	D	2	\$ 412,000.00	\$ 206,000.00		0	0
Basin EA.11 Diversion	West of Ladera Dam 0	SP	Pipe		Private	West I-40 DMP Update, 2006	MAP 11	D	2	\$ 2,397,000.00	\$ -		0	0
Boca Negra Channel	Northwest of Boca Negra Dam	CS	Naturalized channel		Private	Boca Negra-Mariposa DMP, 2005	MAP 2	D	2	\$ 2,624,000.00	\$ -		0	0
Calabacillas Arroyo Bank Monitoring & Enhancement 1	Coors to the River	CS	Misc bank protection		AMAFCA	CBSRD#3	MAP 3	C	4	\$ 500,000.00	\$ 500,000.00		2018	2018
Calabacillas Arroyo Bank Monitoring & Enhancement 2	Eagle Ranch to Coors	CS	Misc bank protection		AMAFCA	CBSRD#3	MAP 3	C	4	\$ 500,000.00	\$ 500,000.00		2018	2018
Calabacillas Arroyo Bank Monitoring & Enhancement 3	Black Diversion to Eagle Ranch	CS	Misc bank protection		AMAFCA	CBSRD#3	MAP 2, 3	C	4	\$ 500,000.00	\$ 500,000.00		2018	2018
Calabacillas Arroyo Bank Monitoring & Enhancement 4	Golf Course to Unser Blvd	CS	Misc bank protection		AMAFCA	CBSRD#3	MAP 2, 3	C	2	\$ 500,000.00	\$ 500,000.00		2018	2018
Calabacillas Arroyo Stabilization	Calabacillas Arroyo northwest of McMahon bridge	CS	Bank stabilization		Private		MAP 2	D	4	\$ 770,000.00	\$ 770,000.00		0	0
Calabacillas/Corrales SWQ Facility	Calabacillas Outfall	QQ	Water quality feature for Calabacillas Outlet		AMAFCA		MAP 3	C	4	\$ 1,406,000.00	\$ 1,406,000.00		2019	2020
Chamisa Pond Expansion		DB			Private		MAP 2	D	2	\$ 729,000.00	\$ 364,500.00		0	0
Chamisa Storm Drain East	South of Paradise and Lyon SD	SP	Storm drain	18" to 60"	Private		MAP 2	D	2	\$ 1,389,000.00	\$ -		0	0
Chamisa Storm Drain West	Vittoria Pond Outfall	SP	Storm drain	18" to 60"	Private		MAP 2	D	2	\$ 128,000.00	\$ -		0	0
CNM Grade Control 1	West of Universe	GC			CNM		MAP 2	A	24	\$ 538,000.00	\$ -		2020	2021
CNM Grade Control 2	West of Universe	GC			CNM		MAP 2	B	24	\$ 352,000.00	\$ -		0	0
Coors/Paseo Storm Drain (West Side)		SP			NMDOT		MAP 3	C	2	\$ 1,895,000.00	\$ -		2018	0
Corrales Main Diversion	Corrales Main & Calabacillas	CH			AMAFCA	Upper Piedras Marcadas	MAP 3	B	4	\$ 800,000.00	\$ 800,000.00		2018	2019
Double Eagle II Airport Pond (NBP1)	East of Paseo del Volcan, south of Boca Negra Arroyo Nor	DB	Detention basin	61 AF	Private	Boca Negra-Mariposa A	MAP 1	D	2	\$ 727,000.00	\$ -		0	0
Double Eagle II Channel	East Amole Box Culvert to Double Eagle II	CH	Lined diversion channel		Private	West I-40 DMP Update, 2006	MAP 11	D	2	\$ 4,449,000.00	\$ -		0	0
Double Eagle Mirehaven Pond MHP2 Upgrade		DB			Private		MAP 6	D	2	\$ 496,000.00	\$ -		0	0
Faciel Rd Storm Drain	South of North Geologic Window	SP	Storm drain pipe	36"	Private	Boca Negra-Mariposa DMP, 2005	MAP 1, 2	D	2	\$ 4,196,000.00	\$ -		0	0
GC1a1 & GC1a Expansion		GC			AMAFCA	Calabacillas FP	MAP 2	A	0	\$ 641,700.00	\$ 641,700.00		2017	2018
GCS 2 South Bank Protection		KS			AMAFCA	Calabacillas FP	MAP 2	C	0	\$ 105,600.00	\$ 105,600.00		0	0
GCS 2b South Bank Protection		KS			AMAFCA	Calabacillas FP	MAP 2	C	0	\$ 72,600.00	\$ 72,600.00		0	0
GCS 3.1		GC			AMAFCA	Calabacillas FP	MAP 2	B	0	\$ 924,000.00	\$ 924,000.00		0	0
GCS 3a1		GC			AMAFCA	Calabacillas FP	MAP 2	B	0	\$ 924,000.00	\$ 924,000.00		0	0
GCS 3b1		GC			AMAFCA	Calabacillas FP	MAP 2	B	0	\$ 924,000.00	\$ 924,000.00		0	0
GCS 4a1		GC			AMAFCA	Calabacillas FP	MAP 2	B	0	\$ 924,000.00	\$ 924,000.00		0	0
GCS 5 North Bank Protection		KS			AMAFCA	Calabacillas FP	MAP 3	C	0	\$ 198,000.00	\$ 198,000.00		0	0
GCS 5.1		GC			AMAFCA	Calabacillas FP	MAP 3	B	0	\$ 924,000.00	\$ 924,000.00		0	0
GCS 6a South Bank Protection		KS			AMAFCA	Calabacillas FP	MAP 3	C	0	\$ 99,000.00	\$ 99,000.00		0	0
Glenrio (Loma Hermosa) Feasibility Study	Coors to River between Hanover and Fortuna	R1	Study to look at size and routing of SD		COA		MAP 12	A	1	\$ 450,000.00	\$ 100,000.00		2022	2022
Glenrio Storm Drain		SP			COA		MAP 12	B	1	\$ 10,126,000.00	\$ -		0	0
Golf Course Rd GC Enhancement		GC	Enhancement of Existing GC		AMAFCA		MAP 2	C	2	\$ 420,000.00	\$ 450,000.00		0	0
Grandmas Pond Storm Drain		SP			AMAFCA		MAP 3	B	4	\$ 63,000.00	\$ 63,000.00		0	0
Ladera Dam 0 Upgrade	Head of Ladera system	DD	Expansion to Qin=910 cfs	10 AF	Private	West I-40 DMP Update,	MAP 11	D	2	\$ 296,000.00	\$ -		0	0
Ladera Dam 1 Upgrade	SW of Ladera Dam 2	DD	Detention basin	48.5 AF	Private	WBORD#1	MAP 11	D	2	\$ 264,000.00	\$ -		0	0
Ladera Dam 12 Upgrade	W of Unser	DD	Detention upgrade		Private		MAP 7	D	2	\$ 824,000.00	\$ -		0	0
Ladera Dam 3 Upgrade	SW of Ladera Dam 4	DD	Detention basin	55.8 AF	Private	WBORD#1	MAP 11	D	2	\$ 365,000.00	\$ -		0	0
Ladera Dam 5 Channel		SP			Private		MAP 11	D	2	\$ 1,651,000.00	\$ -		0	0
Ladera Dam 5 Diversion	West I-40 Channel to Dam 5	SP	Diversion storm drain	48"	Private	WBORD#05	MAP 11	D	2	\$ 1,651,000.00	\$ -		0	0
Ladera Dam 5 Modification	W of 98th extended	DD	Detention basin		AMAFCA	WBORD#1	MAP 11	D	2	\$ 224,000.00	\$ -		0	0
Ladera Dam Spillway Enhancements		CS			AMAFCA		MAP 11,12	A	2	\$ 3,921,000.00	\$ 3,921,000.00		0	0
Ladera Dams 10,12,14,15 EAP	Ladera System	R			AMAFCA		MAP 7,11,12	R	2	\$ 250,000.00	\$ 250,000.00		2019	2019
Las Ventanas Dam WQ Upgrades		QQ	SD outfall & Channel WQ features		AMAFCA		MAP 2	C	2	\$ 425,000.00	\$ 425,000.00		2019	2020
Mirehaven Arroyo (Stormcloud 4&5)	Tierra Pintada to Existing Channel	CS	Conveyance channel		Private	WBORD#05	MAP 6, 7	D	2	\$ 747,000.00	\$ -		0	0
Montano Levee	La Orilla to Oxbow	KS			COA		MAP 2,3,7,8	A	14	\$ 5,141,000.00	\$ 1,000,000.00		2018	2020
North Geologic Window Dam	West of North Geologic Window	DD	Detention dam	173 AF	AMAFCA	BN-Mariposa DMP, 2005	MAP 1	C	2	\$ 4,084,000.00	\$ 4,084,000.00		2017	2018
North Geologic Window Inlet Channel	West of North Geologic Window	CH	Concrete inlet channel	20 BW; 5H; 2:1 SS	AMAFCA	Boca Negra-Mariposa DMP, 2005	MAP 1	C	2	\$ 595,000.00	\$ 595,000.00		0	0
Painted Pony Diversion	West of Painted Pony	CS			AMAFCA		MAP 2	A	2	\$ 219,000.00	\$ -		0	0
Paradise West Dam		DD			AMAFCA	West Branch DMP	MAP 1	C	0	\$ 1,187,000.00	\$ 1,187,000.00		0	0
Paseo del Volcan Diversion	Paseo del Volcan/I-40 to West Amole Dam	SP	Diversion		Private	West I-40 DMP Update, 2006	MAP 11	D	2	\$ 3,069,000.00	\$ -		0	0
Paseo del Volcan Surge Pond	Paseo del Volcan/I-40	DB	Surge pond		Private	West I-40 DMP Update,	MAP 11	D	2	\$ 429,000.00	\$ -		0	0
Piedras Marcadas Arroyo, Tributary Storm Drain	Proposed Paseo del Norte alignment	SP	Storm drain		COA	PMCRD#01	MAP 2	C	2	\$ 1,392,000.00	\$ 696,000.00		0	0
Piedras Marcadas Outfall	Piedras Marcadas Dam to River	SP			AMAFCA		MAP 2,3	B	4	\$ 8,279,000.00	\$ 8,279,000.00		2020	2021
Piedras Marcadas Surge Pond	North of Paseo del Norte	DB		30 af	AMAFCA		MAP 2	B	2	\$ 8,900,000.00	\$ 4,450,000.00		0	0
Piedras Marcadas Surge Pond Outfall		SP			AMAFCA		MAP 2	B	2	\$ 224,000.00	\$ 224,000.00		0	0
Powerline Channel	North of Central Ave	CH	Concrete channel freeboard upgrade		AMAFCA	AMHRD#1	MAP 11	C	2	\$ 1,229,000.00	\$ -		0	0
Quail Ranch Dam	Boca Negra Arroyo North in Quail Ranch	DD	Detention dam	155 AF	Private	BN-Mariposa DMP, 2005	MAP 1	D	2	\$ 3,736,000.00	\$ 1,868,000.00		0	0
Quick Water WQ		QQ			COA		MAP 7	C	2	\$ 326,000.00	\$ 326,000.00		0	0
Rainbow Rd Grade Control		GC			BC		MAP 2	B	24	\$ 1,072,000.00	\$ -		0	0
Rinconada WQ		QQ			AMAFCA		MAP 7	C	2	\$ 294,000.00	\$ 294,000.00		0	0
Rosa Parks Rd Storm Drain	West of Boca Negra Channel	SP	Storm drain		Private		MAP 1, 2	D	2	\$ 3,806,000.00	\$ -		0	0
S. Ventana Ranch Storm Drain	Ventana Ranch	SP	Storm drain		Private		MAP 1	D	2	\$ 1,097,000.00	\$ -		0	0
SBP1 to SBP2 Overflow Channel	Double Eagle South Boca Negra Collection Channel	CH	Overflow diversion channel		Private	SANRD#05	MAP 1, 6	D	2	\$ 856,000.00	\$ -		0	0
SBP2 to NBP1 Diversion Storm Drain	N Boca Negra Pond to S Boca Negra Pond	SP	Diversion storm drain	36" SD	Private	SANRD#05	MAP 1, 6	D	2	\$ 5,224,000.00	\$ -		0	0
Scenic Rd Storm Drain	West of Boca Negra Channel	SP	Storm Drain		Private		MAP 1,2	D	2	\$ 3,084,000.00	\$ -		0	0
Shamrock Channel Improvements	Double Eagle II to West Amole Dam	CS	Rip Rap Lined channel		Private	West I-40 DMP Update, 2006	MAP 11	D	2	\$ 169,000.00	\$ -		0	0

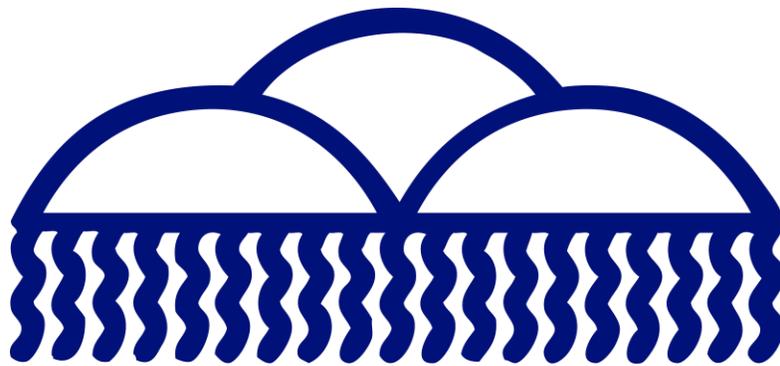
Name	Location	Type	Description	Approximate Size	Lead Agency	Reference	Map Page	Assessment	District	Total Cost	AMAFCA Cost	Partners	Design FY	Const FY
South Boca Negra Pond SBP1	Double Eagle S Boca Negra Playa	DB	Enlarge existing playa to 9AF	43 AF	Private		MAP 1	D	2	\$ 501,000.00	\$ -		0	0
South Boca Negra Pond SBP2	Double Eagle S Boca Negra Detention	DB	Detention basin	49 AF runoff, 162 AF capacity	Private	SANRD#05	MAP 6	D	2	\$ 456,000.00	\$ -		0	0
Swinburne Dam Regional WQ & Sediment Facility	Outfall of Calabacillas West Branch to Swinburne Dam	QQ			AMAFCA		MAP 2	C	2	\$ 1,900,000.00	\$ 19,000,000.00		2019	2020
Tierra Bayita Pond 1		DB		21 AF	Private		MAP 12	D	2	\$ 379,000.00	\$ -		0	0
Universe Storm Drain	The Trails Ponds south to Boca Negra Dam	SP	Storm drain	?	COA	Boca Negra-Mariposa DMP, 2005	MAP 2	C	2	\$ 2,337,000.00	\$ -		0	0
Unser North Storm Drain		SP			Private		MAP 2	D	2	\$ 1,019,000.00	\$ -		0	0
Unser Storm Drain	Northeast of Boca Negra Dam	SP	Storm drain		Private	Boca Negra-Mariposa DMP, 2005	MAP 2	D	2	\$ 1,891,000.00	\$ -		0	0
Unser Storm Drain WQ	Unser Storm Drain Outfall	QQ	Debris structure		AMAFCA		MAP 2	B	2	\$ 2,086,000.00	\$ 2,086,000.00		2023	2024
UPM Pond	N of PDN	DB	Detention basin	20AF	Private	Upper PM DMP	MAP 2	D	2	\$ 9,945,000.00	\$ 4,972,500.00		0	0
Upper Calabacillas Facility Plan		R1			AMAFCA		Map 2,3	B	24	\$ 250,000.00	\$ 200,000.00	SSCAFCA	2019	2019
Volcano Storm Drain		SP		66-72	Private	Amole Hubbell DMP	MAP 11,12	D	2	\$ 5,258,000.00	\$ -		0	0
West Amole Dam	West of Double Eagle II	DD	Detention dam		AMAFCA	West I-40 DMP Update,	MAP 11	C	2	\$ 7,072,000.00	\$ -		0	0
West Amole Dam Outfall		SP			Private		MAP 11	D	2	\$ 1,608,000.00	\$ -		0	0
West Branch Calabacillas (Quail Ranch) Dam		DD			Private	WB Calabacillas	MAP 1	D	2	\$ 4,680,000.00	\$ 2,340,000.00		0	0
West I-40 Diversion Storm Drain	East Amole Box to Double Eagle II	SP	Storm drain	60"	Private	West I-40 DMP Update, 2006	MAP 11	D	2	\$ 1,335,000.00	\$ -		0	0
Winterhaven SD		SP			COA		MAP 7	C	4	\$ 475,000.00	\$ -		0	0

Project Schedule Water Quality Facility Scoring - Area 1

Summary: There were a total of eight stormwater quality projects in Area 1 which ranged in total price from \$144,000 to \$2,086,000. Using the aforementioned criteria, the projects which scored the highest were the Calabacillas/Corrales SWQ Facility, the Las Ventanas Dam WQ Upgrades, the Quick Water WQ, and the Rinconada WQ with 3 points each.

Name	Total Cost	WQ in RG Flow path	Cost Points	"Flow Path" Points	"Bosque Bonus"	Total Points	Notes
Calabacillas/Corrales SWQ Facility	\$ 1,406,000	Existing WQ Above	0	1	2	3	Dependent on project to happen - private
Las Ventanas Dam WQ Upgrades	\$ 425,000	Existing WQ Below	2	1	0	3	Retrofit, floatables driven
Unser Storm Drain WQ	\$ 2,086,000	Existing WQ Above	0	1	0	1	Retrofit, floatables driven
Quick Water WQ	\$ 326,000	Existing WQ Below	2	1	0	3	Retrofit
Rinconada WQ	\$ 294,000	Existing WQ Below	2	1	0	3	Retrofit
Swinburne Dam Regional WQ & Sediment Facility	\$ 1,900,000	Existing WQ Below	0	1	0	1	Retrofit, sediment driven

AMAFCA 2018 Project Schedule



Area 2

Name	Location	Type	Description	Approximate Size	Lead Agency	Reference	Map Page	Assessment	District	Total Cost	AMAFCA Cost	Partners	Design FY	Const FY
AFFIS Phase I	Embudo - I-40 to Morris	R1	Arroyo Flash Flood Indicator System		COA		MAP 9,10,14	B	3	\$ 279,000.00	\$ 70,000.00		-	-
AFFIS Phase II	NDC - Indian School to I-25 + Embudo to Carlisle	R1	Arroyo Flash Flood Indicator System		AMAFCA		MAP 8,9,13	B	3	\$ 373,000.00	\$ 70,000.00		-	-
AFFIS Phase III	NDC - I-25 to Balloon Fiesta	R1	Arroyo Flash Flood Indicator System		AMAFCA		MAP 3,4,8	B	34	\$ 466,000.00	\$ 70,000.00		-	-
Arroyo Del Oso Dam EAP		R			COA		MAP 9	R	3	\$ 30,000.00	\$ -		-	-
Bear Arroyo WQ		QQ			AMAFCA		MAP 9	A	3	\$ 400,000.00	\$ 200,000.00	COA	-	-
Bear Canyon Mid Channel Baffle Chute Bypass SWQF	Baffle chute between Jefferson and NDC	QQ	Baffle chute bypass		AMAFCA		MAP 9	A	3	\$ 1,120,000.00	\$ 1,120,000.00		-	-
Browning Drainage Improvements Ph 1	Browning from Holly to Anaheim	XX	100-year storm crossing structures		BC		MAP 5	B	4	\$ 131,000.00	\$ -		2018	2018
Browning Drainage Improvements Ph 2	Anahiem from Holly to Modesto	XX	100-year storm crossing structures		BC		MAP 5	C	4	\$ 231,000.00	\$ -		-	-
Campus Wash Box Rehab	Under Lomas	SP			COA		MAP 13	C	5	\$ 2,512,000.00	\$ -		-	-
Campus Wash Box Upgrade	Campus Blvd Lomas to Girard	SP	Box upgrade		COA		MAP 13	C	5	\$ 9,616,000.00	\$ -		-	-
Campus Wash SWQ Facility	Lomas and Stanford	QQ			UNM		MAP 13	C	5	\$ 995,000.00	\$ -		-	-
Candelaria Hahn Flood Plain Reduction		SP			COA		MAP 8,9	B	3	\$ 3,742,000.00	\$ -		-	-
Carolina Storm Drain	Candelaria to Hahn Arroyo South Channel	SP	Storm drain		COA		MAP 9	B	3	\$ 2,563,000.00	\$ -		-	-
Chelwood Park NE Storm Drain	Marquette to I-40 Channel	SP			COA		MAP 15	C	5	\$ 3,400,000.00	\$ -		2018	2020
Clifford Channel Water Quality	Domingo Baca inlet to NDC	QQ	Debris control & environmental pond		AMAFCA		MAP 3	B	4	\$ 475,000.00	\$ 475,000.00		-	-
Coronado Airport Channel	I-25 E to N Camino Tributary	CH	New concrete channel	10BW; 6.1H, 2-/SS; S=.03	Sandia Pueblo	LACRD#01, DOBRD#03	MAP 4	D	4	\$ 3,540,000.00	\$ -		-	-
Dallas Storm Drain		SP			COA		MAP 14	A	5	\$ 9,065,000.00	\$ -		-	-
Dallas Surge Pond		DB			COA		MAP 14	A	5	\$ 400,000.00	\$ 200,000.00	AMAFCA	2018	2018
El Pueblo Drainage Phases 2, 3, 4	Crosses El Pueblo Rd and rail road tracks near NDC	SP	66" RCP and/or concrete channel		NMDOT	El Pueblo Rd Drainage Analysis	MAP 4	C	4	\$ 939,000.00	\$ -		-	-
Elena Training Dike (AV-8)	West of Wyoming	KS	New training dike		Sandia Pueblo		MAP 4	D	4	\$ 232,000.00	\$ -		-	-
Embuditio Arroyo Rehab	Embudo Arroyo to Tramway	CH			COA	Long Range Project	MAP 10	C	3	\$ 12,270,000.00	\$ -		-	-
Embudo Arroyo Rehab	I-40 to Monte Largo Dr	CH			COA	Long Range Project	MAP 9,10,14,1C	C	3	\$ 18,626,000.00	\$ -		-	-
Embudo Box Reconstruction	I-40 Channel to Embudo Channel	SP			AMAFCA		MAP 9	A	3	\$ 33,707,000.00	\$ 29,325,000.00		-	-
Embudo EAP	Embudo Dam	R1	EAP for Embudo Dam		COA		MAP 15	C	35	\$ 100,000.00	\$ -		-	-
Fairgrounds Water Quality Pond/SD Mod		QQ			COA		MAP 14	B	5	\$ 4,913,000.00	\$ -		-	-
Geneiva's Arroyo Improvements	University to the SDC	SP	Box Culvert		Private		MAP 13	D	1	\$ 4,446,000.00	\$ -		-	-
Geneiva's Inlet Water Quality	South Diversion and Geneiva's Arroyo	QQ			AMAFCA		MAP 13	C	1	\$ 996,000.00	\$ 996,000.00		-	-
Gibson/San Mateo Flood Plain Restudy		R1			AMAFCA		MAP 14	R	5	\$ 100,000.00	\$ 50,000.00		2020	2021
Glendale Storm Drain	Glendale Ave Barstow to Ventura	SP	New storm drain extension		Private		MAP 4	D	4	\$ 2,377,000.00	\$ -		-	-
Hahn Arroyo Phase II	Carlisle to Morningside	CH			AMAFCA		MAP 8,9	A	3	\$ 4,055,000.00	\$ 2,027,500.00		-	-
Hahn Arroyo Rehab East	California to E of Louisiana	CH	Concrete trapezoidal channel	40 BW; 1.5:1ss; 5 to 7 H	COA	Long Range Project	MAP 9	C	3	\$ 13,455,000.00	\$ -		-	-
Hahn Arroyo Rehab West	Morningside to Comanche	CH	Concrete trapezoidal channel	40 BW; 1.5:1ss; 5 to 7 H	COA	Long Range Project	MAP 9	C	3	\$ 10,457,000.00	\$ -		-	-
Hahn Inlet/Comanche Pond Water Quality	Hahn inlet to NDC	QQ	Water quality at NDC		AMAFCA	NDC Recon Study	MAP 8	C	3	\$ 2,006,000.00	\$ 2,006,000.00		-	-
Hamilton Dam	N of Glendale, W of Eubank Blvd	DD	Sediment=12AF; Useable vol=92AF	295W x 36H; 104 AF	AMAFCA	LACRD#01	MAP 5	B	4	\$ 8,656,000.00	\$ 8,656,000.00		2018	2020
Highland Detention Basin Upgrade	Highland High School	DB	Detention basin		COA		MAP 14	C	5	\$ 422,000.00	\$ -		-	-
Holbrook Storm Drain	Holbrook N of Carmel	SP	Storm drain		BC		MAP 4	C	4	\$ 1,359,000.00	\$ -		-	-
Jefferson Storm Drain Extension	Jefferson & Osuna	SP			COA		MAP 9	A	3	\$ 1,711,000.00	\$ -		-	-
John B. Robert Dam EAP		R			AMAFCA		MAP 10	R	3	\$ 50,000.00	\$ 50,000.00		2018	2018
KAFB Tributaries Grade Control Structure	North escarpment	CS	Grade control structures		KAFB	TJRD#06	MAP 19	C	5	\$ 964,000.00	\$ -		-	-
Kinney Dam EAP		R			AMAFCA		MAP 4	R	4	\$ 50,000.00	\$ 50,000.00		2019	2019
Kirtland AFB South Detention Basin	S of Gibson, E of Louisiana	DB	Detention basin	14" D. orifice outlet	COA		MAP 14	A	5	\$ 1,481,000.00	\$ 740,500.00		2018	2018
La Cueva at Primrose Point Bank Protection		CS	Multiple GCS		BC		MAP 5	B	4	\$ 506,000.00	\$ -		-	-
La Cueva Channel (C-11)	End of existing channel, along Alameda, to E of Holbrook	CH	New lined channel	10 BW; 6.6 H; 2: 1ss; s = .0357	Private	LACRD#01, DOBRD#04	MAP 4, 5	D	4	\$ 4,711,000.00	\$ -		-	-
La Cueva Trib CBC Outfall		CS			AMAFCA		MAP 5	B	4	\$ 140,000.00	\$ 140,000.00		-	-
Lowell St Storm Drain	Lowell from San Francisco to Domingo Baca Dam	SP	Storm drain	54" RCP, s=1.6%	BC	DOBRD#04	MAP 5	C	4	\$ 602,000.00	\$ -		-	-
McKnight/Mary Ellen Storm Drain	Eubank to Embudo Arroyo	SP	Storm Drain		COA		MAP 14	B	3	\$ 2,061,000.00	\$ -		2017	2018
Montgomery Storm Drain	Pennsylvania to Julie Channel	SP			COA		MAP 9	B	3	\$ 700,000.00	\$ -		2016	2018
Morris NE Storm Drain	Toltec to Embuditio Arroyo	SP			COA		MAP 10	C	3	\$ 2,700,000.00	\$ -		2022	2024
N Camino Inlet Improvements		SP	Convert to CBC		AMAFCA		MAP 4	C	4	\$ 3,258,000.00	\$ -		2020	2020
NDC Outfall Storm Water Quality (Debris Fence)	Equipment Crossing	QQ	New water quality feature		AMAFCA		MAP 4	C	4	\$ 1,037,000.00	\$ 1,037,000.00		2018	2018
NDC Outfall Storm Water Quality (Floating Boom)	North Diversion Channel Outfall	QQ	New water quality feature		AMAFCA		MAP 4	C	4	\$ 976,000.00	\$ 976,000.00		2019	2019
NDC Outfall Storm Water Quality (Propane)	North Diversion Channel Outfall	QQ	New water quality feature		AMAFCA		MAP 4	C	4	\$ 1,055,000.00	\$ 1,055,000.00		-	-
NDC Overlay		CH	Floor overlay for NDC		AMAFCA		MAP 3,4	A	4	\$ 6,000,000.00	\$ 6,000,000.00		2017	2017
NDC Performance Improvement	NDC at Osuna	CH			AMAFCA		MAP 8	B	34	\$ 2,980,000.00	\$ 2,980,000.00		2019	2020
Near Heights Flood Control	Between Mountain & Summer, Washington & Monroe	SP			COA		MAP 14	B	5	\$ 1,200,000.00	\$ -		2018	2018
Near Heights Pond	Avenida La Sesolana & Avenida Manana	DB			COA		MAP 14	B	5	\$ 100,000.00	\$ -		-	-
North Camino Arroyo DMP		R1			AMAFCA		MAP 4,5	R	4	\$ 200,000.00	\$ 200,000.00		2020	2020
North Camino Channel Extension	Camino Inlet E to San Mateo	CH	New storm drain pipe or box culvert	10BW; 6.1 H; 2:155	AMAFCA	LACRD#01	MAP 4	C	4	\$ 9,000,000.00	\$ -		2023	2024
North Camino Tributary	N end of Coronado Airport runway	CH	New concrete channel/storm drain	84" RCP or 10 BW, 4.5H; 2:1ss; s = Sandia Pueblo	LACR #01, DOBRD#03		MAP 4	D	4	\$ 510,000.00	\$ -		-	-
North Camino/El Camino Arroyos Avulsion One	NE Tramway Rd, approx 1600' E of USFS Rd No. 333	KS	Training dike	15' tw, 3' to 8' h, w/rip rap buried	AMAFCA	LACRD#01	MAP 5	B	4	\$ 3,144,000.00	\$ 3,144,000.00		2018	2018
North Diversion Channel 500 yr Mods N Camino	Camino Arroyo Junction	CH	Rectangular concrete channel		AMAFCA		MAP 4	C	4	\$ 698,000.00	\$ 698,000.00		-	-
North Diversion Channel, 500 yr mods La Cueva	Opposite La Cueva Arroyo Inlet	CH	3' high flood wall anchored @ channel top		AMAFCA	NDCRD#04	MAP 4	C	4	\$ 140,000.00	\$ 140,000.00		-	-
North Diversion Channel, 500 yr mods N Pino	Opposite N Pino Arroyo Inlet	CH	3' high flood wall anchored @ channel top		AMAFCA	NDCRD#04	MAP 3	C	4	\$ 140,000.00	\$ 140,000.00		-	-
North Diversion Channel, 500 yr mods Osuna	Opposite Bear Canyon Arroyo Inlet	CH	3' high flood wall anchored @ channel top		AMAFCA		MAP 8	C	43	\$ 140,000.00	\$ 140,000.00		-	-
North Diversion Channel, 500 yr mods S Pino	Opposite South Pino Arroyo Inlet	CH	3' high flood wall anchored @ channel top		AMAFCA	NDCRD#04	MAP 3	C	4	\$ 140,000.00	\$ 140,000.00		-	-
North Diversion Channel/Indian School WQ Pond	NDC and Indian School Rd	QQ	Water Quality Pond		AMAFCA		MAP 13	B	5	\$ 2,521,000.00	\$ 2,521,000.00		2020	2021
North Domingo Baca Dam EAP		R			AMAFCA		MAP 5	R	4	\$ 50,000.00	\$ 50,000.00		2018	2018
North Domingo Baca Dam Upgrade	NE corner Holly Ave/Eubank Blvd	DD	Increase 40AF and emergency spillway upsizing	195 AF	AMAFCA	DOBRD#01	MAP 5	D	4	\$ 1,001,000.00	\$ -		-	-
North Edith Pond Outfall		SP			BC		MAP 4	C	4	\$ 425,000.00	\$ -		2018	2018
North Hahn Rehab	Hahn confluence to Pennsylvania	CH	Channel rehab		COA	Long Range Project	MAP 9	C	3	\$ 6,056,000.00	\$ -		-	-
Phoenix NE Storm Drain	Phoenix to Piedra Lisa Channel	SP			COA		MAP 10	C	3	\$ 2,000,000.00	\$ -		2020	2022
Piedra Lisa Rehab		CH			COA	Long Range Project	MAP 10	C	3	\$ 7,659,000.00	\$ -		-	-
Pino Bank Monitoring & Enhancement	Through Albuquerque Academy	CS			AMAFCA		MAP 9	B	4	\$ 200,000.00	\$ 200,000.00		2018	2018
Pino Channel Extension		SP			Private		MAP 10	D	4	\$ 3,253,000.00	\$ -		-	-

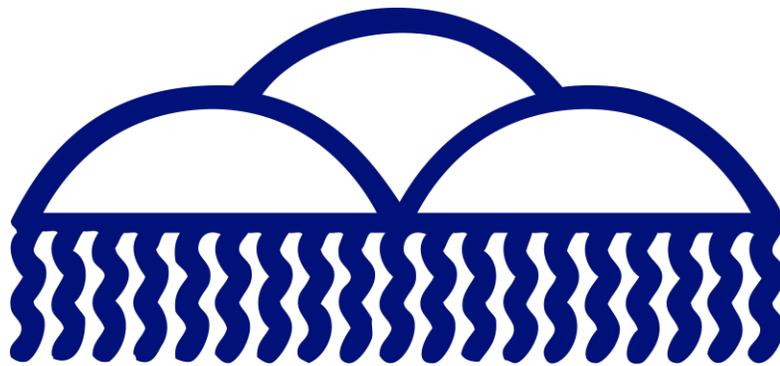
Name	Location	Type	Description	Approximate Size	Lead Agency	Reference	Map Page	Assessment	District	Total Cost	AMAFCA Cost	Partners	Design FY	Const FY
Pino Dam Emergency Spillway Modifications	West of Tramway Blvd	DD	Emerg. spillway erosion protection		AMAFCA		MAP 10	B	4	\$ 3,826,000.00	\$ 3,826,000.00		2021	2022
Pueblo Alto Area Storm Drain	Constitution and San Mateo	SP			COA		MAP 14	C	3	\$ 2,306,000.00	\$ -		-	-
Racetrack Pond Water Quality	State Fairgrounds	QQ	Debris screen		COA		MAP 14	C	5	\$ 820,000.00	\$ -		-	-
S Domingo Baca Dam Outfall	SDB Dam to SDB Channel W. of Eubank	SP	Storm drain		Private	DOBRD#04	MAP 5	D	4	\$ 7,484,000.00	\$ -		-	-
S Domingo Baca Diversion Channel Ext (Hawks Ldg)	Tramway to Tramway Ln	CH	Lined concrete channel		Private		MAP 5	D	4	\$ 1,275,000.00	\$ -		-	-
SDC Access Project	SDC at Gibson	R1			AMAFCA		MAP 13	B	1	\$ 150,000.00	\$ 150,000.00		2020	2020
SDC Freeboard Improvements	SDC near Avenida Cesar Chavez	CH			AMAFCA		MAP 18	C	1	\$ 419,000.00	\$ 419,000.00		2021	2022
South Diversion Channel Pipe	North of Cesar Chavez	SP		108" Pipe	UNM		MAP 13	C	5	\$ 1,197,000.00	\$ -		-	-
South Domingo Baca Channel	Barstow E to Holbrook	CH	Analyze freeboard deficiencies	Raise freeboard	COA	DOBRD#01	MAP 4	D	4	\$ 4,395,000.00	\$ -		-	-
South Domingo Baca Dam EAP		R			AMAFCA		MAP 5	R	4	\$ 50,000.00	\$ 50,000.00		2018	2018
Southern SE Storm Drain	Louisiana to Arizona	SP			COA		MAP 14	B	5	\$ 1,300,000.00	\$ -		2018	2020
Tijeras Arroyo Bank Protection @ JTH West	East side of Tijeras Arroyo from KAFB Fence to Juan Tabo	KS	Engineered bank protection		Private		MAP 15	D	5	\$ 906,000.00	\$ -		-	-
Tomlinson Dr Storm Drain	Tomlinson from Singing Arrow to Tijeras Arroyo	SP			COA		MAP 15	A	5	\$ 3,400,000.00	\$ -		-	-
UNM Box Culvert Extension to Camino de Salud		SP			UNM		MAP 13	C	5	\$ 18,184,000.00	\$ -		-	-
Upper Bear WQ		QQ			AMAFCA		MAP 9	A	3	\$ 200,000.00	\$ 100,000.00	COA	-	-

Project Schedule Water Quality Facility Scoring - Area 2

Summary: There were a total of thirteen stormwater quality projects in Area 2 which ranged in total price from \$200,000 to \$4,913,000. Using the aforementioned criteria, the projects which scored the highest were the Clifford Channel Water Quality, the NDC Outfall Storm Water Quality (Debris Fence), the Bear Arroyo WQ, and the Upper Bear WQ with 3 points each.

Name	Total Cost	WQ in RG Flow path	Cost Points	Flow Path" Points"	"Bosque Bonus"	Total Points	Notes
Bear Canyon Mid Channel Baffle Chute Bypass SWQF	\$ 1,120,000.00	Existing WQ Below	0	1	0	1	
Campus Wash SWQ Facility	\$ 995,000.00	Existing WQ Below	1	1	0	2	
Clifford Channel Water Quality	\$ 475,000.00	Existing WQ Below	2	1	0	3	
Fairgrounds Water Quality Pond/SD Mod	\$ 4,913,000.00	Existing WQ Below	0	1	0	1	
Geneiva's Inlet Water Quality	\$ 996,000.00	Existing WQ Below	1	1	0	2	
Hahn Inlet/Comanche Pond Water Quality	\$ 2,006,000.00	Existing WQ Below	0	1	0	1	
NDC Outfall Storm Water Quality (Debris Fence)	\$ 1,037,000.00	Existing WQ Above	0	1	2	3	
NDC Outfall Storm Water Quality (Floating Boom)	\$ 976,000.00	Existing WQ Below	1	1	0	2	
NDC Outfall Storm Water Quality (Propane)	\$ 1,055,000.00	Existing WQ Below	0	1	0	1	
North Diversion Channel/Indian School WQ Pond	\$ 2,521,000.00	Existing WQ Below	0	1	0	1	
Racetrack Pond Water Quality	\$ 820,000.00	Existing WQ Below	1	1	0	2	
Bear Arroyo WQ	\$ 400,000.00	Existing WQ Below	2	1	0	3	
Upper Bear WQ	\$ 200,000.00	Existing WQ Below	2	1	0	3	

AMAFCA 2018 Project Schedule



Area 3

Name	Location	Type	Description	Approximate Size	Lead Agency	Reference	Map Page	Assessment	District	Total Cost	AMAFCA Cost	Partners	Design FY	Const FY
114th St Pond	114th & Central	DB	Pond on City ROW	5 AF	COA		MAP 11	C	2	\$ 388,000.00	\$ -		-	-
Abq West Levee LOMR Phase 2	South of I-25	R1			AMAFCA		MAP 22	A	1	\$ 60,000.00	\$ -		-	-
Adobe Acres Pump Station Outfall		SP	Storm drain		BC/USACE/APS		MAP 17	B	1	\$ 1,700,000.00	\$ -		2018	2018
Amalia Rd Storm Drain		SP			BC		MAP 12	C	1	\$ 168,000.00	\$ -		-	-
Amole Arroyo	Powerline to Westgate Dam	CH	Lined channel	5 W x 4 H, 4:1ss	Private	AMHRD#1	MAP 11	D	2	\$ 2,408,000.00	\$ -		-	-
Amole Arroyo Modification	Upstream of Amole Dam	CH		400 ft new channel	AMAFCA	A-H System Analysis	MAP 17	A	1	\$ 950,000.00	\$ 950,000.00		2018	2018
Amole Dam EAP		R	Emergency Action Plans		AMAFCA		MAP 17	R	1	\$ 50,000.00	\$ 50,000.00		2018	2018
Amole Dam Gravity Outlet (PHase II)	Either side of Navajo Elem Storm Drain	SP	Storm Drain		AMAFCA	SWVRD#10	MAP 17	B	1	\$ 671,000.00	\$ 671,000.00		2018	2019
Amole Del Norte Inlet WQ		QQ			COA		MAP 17	B	1	\$ 500,000.00	\$ -		-	-
Amole West Branch Channel	Westgate Dam to Arisco Vista	CH	Stable conveyance		Private	AMHRD#01	MAP 11, 16	D	2	\$ 6,635,000.00	\$ -		-	-
Ann Ave Storm Drain		SP			BC		MAP 13	C	1	\$ 130,000.00	\$ -		-	-
Antone Lp Storm Drain		SP			BC		MAP 17	C	1	\$ 223,000.00	\$ -		-	-
Arenal to Riverside Drain SD		SP			BC		MAP 13	C	1	\$ 176,000.00	\$ -		-	-
Barr Main Canal Improvements	Barr Main/AT&SF RR crossing N to Desert	CH	Conc. low flow channel, gravel bottom; Nat	10 BW low flow; 20 BW; 3:1ss	BC	SVERD#04	MAP 18	B	1	\$ 4,792,000.00	\$ -		2019	2020
Barr Pond		DB		45 Ac Ft	BC		MAP 23	B	1	\$ 951,000.00	\$ 475,500.00		-	-
Benavides SD Upper Extension		SP		60"	COA		MAP 12	C	2	\$ 2,899,000.00	\$ -		-	-
Benavides Storm Drain Extension	Snow Vista Channel at Benevides	SP	Extend storm drain 150-200 ft south of bridge	66" Pipe	AMAFCA	Amole Hubbell DMP 2013 rev	MAP 12	B	2	\$ 391,000.00	\$ -		-	-
Black Mesa P.S. Outfall Upgrade	P.S. to Rio Grande	SP	Outfall to Rio Grande		BC		MAP 22	B	1	\$ 1,014,000.00	\$ 507,000.00		2019	2020
Black Mesa Phase I Manhole Rehab		SP			AMAFCA		MAP 22	B	1	\$ 1,000,000.00	\$ 1,000,000.00		2018	2019
Black Mesa Phase II Pump Station	N of I-25 to Rio Grande	PS	Pump station		USACE		MAP 22	B	1	\$ 2,619,000.00	\$ -		-	-
Black Mesa Pond and Pump Station Ph 1	N of I-25, E of Los Padillas Drain	DB	Pond	3-100 hp pumps	BC	GENRD#08	MAP 22	B	1	\$ 4,612,000.00	\$ -		-	-
Black Mesa Storm Drain (Don Felipe)	Don Felipe Dam to Black Mesa Outlet Pipe	SP	Storm drain		AMAFCA		MAP 17, 22	B	1	\$ 4,803,000.00	\$ 4,803,000.00		2018	2019
Black Mesa Storm Drain (McCoy)	McCoy Dam to Black Mesa Pipe	SP	Storm drain		AMAFCA		MAP 22	A	1	\$ 3,541,000.00	\$ 3,541,000.00		2018	2020
Black Mesa Water Quality	Black Mesa Pond	QQ			AMAFCA		MAP 22	C	1	\$ 874,000.00	\$ 437,000.00	BC	-	-
Blake Storm Drain	Coors to Isleta Drain	SP			BC		MAP 16	B	1	\$ 2,163,000.00	\$ -		2018	2018
Bobby Foster Storm Drain	Broadway south of Tijeras Arroyo	SP			BC		MAP 18	C	1	\$ 4,715,000.00	\$ -		2018	2018
Borrega Dam Upgrade	Borrega Arroyo W of Karrol St	DD	Increase to 90 AF for future development "Phase B"	90 AF	Private	AMHRD#09	MAP 17	D	1	\$ 1,623,000.00	\$ -		-	-
Cannon Storm Drain	Extension of existing storm drain in Hartline and Airway	SP	Storm drain		BC		MAP 13	C	1	\$ 650,000.00	\$ -		-	-
Carlos Rey Elem. Restudy	Area around Carlos Rey Elem.	R1	From 2010 Meetings		COA		MAP 11	R	2	\$ 150,000.00	\$ -		-	-
Ceja Vista Storm Drain & Ponding		SP			Private		MAP 17	D	1	\$ 9,249,000.00	\$ -		-	-
Ceja Vista Storm Drain North	Borrega Dam to Rio Bravo	SP	Diversion storm drain		Private	AMHRD#09	MAP 17	D	1	\$ 1,492,000.00	\$ -		-	-
Del Rey Storm Drain	Westgate Subdivision	SP	Alt alignment for Benavides SD		COA		MAP 11, 12	C	2	\$ 2,682,000.00	\$ -		-	-
Dennis Chavez Channel Upgrade	Upstream of Condershire CBC	CH	Sill walls		BC		MAP 17	B	1	\$ 279,000.00	\$ -		-	-
Don Felipe Dam Upgrade		DD	Detention basin		Private		MAP 17	D	1	\$ 1,803,000.00	\$ -		-	-
Eduardo Storm Drain		SP		48"	BC		MAP 12	C	1	\$ 1,723,000.00	\$ -		-	-
Far SE Detention Basin		DB			Private		MAP 23	D	1	\$ 433,000.00	\$ -		-	-
Far SE Detention Basin Outfall Channel	Rio Grande E to W of Riverside Drain	CS	Earth trapezoidal ditch		Private	SVERD#04	MAP 22, 23	D	1	\$ 762,000.00	\$ -		-	-
Far Southeast Detention Basin Outfall Pipe	W of Riverside Dr E to E of AT&SF RR, N of I-25	SP	Outfall pipe from detention basin	48" RCP	Private	SVERD#04	MAP 22, 23	D	1	\$ 1,025,000.00	\$ -		-	-
Guac Detention Basin	W of Amole Basin	DB	Connected to Amole basin	550 AF	AMAFCA	A-H System Analysis	MAP 17	C	1	\$ 808,000.00	\$ 808,000.00		2018	2018
Gun Club Storm Drain to Borrega Dam	Borrega Dam to Gun Club Rd	SP	Diversion storm drain	66"	Private	AMHRD#1	MAP 17	D	1	\$ 2,372,000.00	\$ -		-	-
Hubbell Dam EAP		R	Emergency Action Plans		AMAFCA		MAP 17	R	1	\$ 50,000.00	\$ 50,000.00		2018	2018
Hubbell Dam Expansion	North of Hubbell Dam	DD			AMAFCA	A-H System Analysis	MAP 17	A	1	\$ 1,056,000.00	\$ 1,056,000.00		2018	2021
Isleta Drain Crossing Upgrades	Don Felipe to Los Padillas Ext.	CS	Crossing upgrades	10W	BC/AMAFCA	SWVRD#4	MAP 12, 17	B	1	\$ 863,000.00	\$ -		-	-
Isleta Drain Upgrade	I-25 to Don Felipe	CS	Culvert crossing upgrades	10W	BC	SWVRD#4	MAP 17, 22	B	1	\$ 1,088,000.00	\$ -		-	-
La Vega / Hardy Drainage Improvements	La Vega and Hardy, east of Isleta	SP	Drainage to Isleta Blvd with pump station at church		BC		MAP 12	C	1	\$ 2,143,000.00	\$ -		-	-
Los Padillas Drain Upgrade	LPSD to I-25	CS	Earthen drain		BC		MAP 22	B	1	\$ 1,091,000.00	\$ -		-	-
Los Padillas/Isleta Drains Improvements		CS			BC		MAP 17	B	1	\$ 349,000.00	\$ -		2016	2018
McCoy Diversion Channel A	North of McCoy Dam	CS	Stable diversion channel		AMAFCA	SWMRD#4	MAP 22	B	1	\$ 4,053,000.00	\$ 4,053,000.00		-	-
McCoy Diversion Channel B	South of McCoy Dam	CS	Stable diversion channel		AMAFCA	SWMRD#4	MAP 22	B	1	\$ 2,372,000.00	\$ 2,372,000.00		-	-
Mesa Del Sol I-25 Stormdrains	Along I-25	SP			Mesa del Sol		MAP 22, 23	D	1	\$ 17,645,000.00	\$ -		-	-
Mesa Del Sol Lower Detention Pond A		DB		82 Ac Ft	Private		Map 23	D	5	\$ 5,200,000.00	\$ -		-	-
Mesa Del Sol Lower Pond B		DB		79 Ac Ft	Private		MAP 23	D	5	\$ 1,246,000.00	\$ -		-	-
Mesa Del Sol Lower Pond C	Between Broadway and I-25 across from Paragon	DB		57 Ac Ft	Mesa del Sol		MAP 23	D	1	\$ 1,028,000.00	\$ -		-	-
Mesa Del Sol Lower Stormdrain	I-25 to Broadway	SP			Mesa del Sol		MAP 18	D	1	\$ 1,842,000.00	\$ -		-	-
Mesa Del Sol Upper Stormdrain	Bobby Foster to I-25	SP			Mesa del Sol		MAP 18	D	5	\$ 245,000.00	\$ -		-	-
Navajo Regional Pond		DB		12 AF	AMAFCA		MAP 17	C	1	\$ 356,000.00	\$ 356,000.00		-	-
North Johniece Storm Drain	Johniece Rd, Powers Rd to McCoy Dam	SP	Storm drain		AMAFCA		MAP 22	B	1	\$ 3,764,000.00	\$ 1,882,000.00		2019	2020
Old Coors LOMR		R1	Flood plain removal after construction of Old Coors Ponding Area		BC		MAP 12	B	1	\$ 150,000.00	\$ -		-	-
Old Coors Ponding Area	East of Coors/Old Coors intersection	DB			BC		MAP 12	B	1	\$ 600,000.00	\$ -		2018	2018
Paakweree WQ		QQ			BC	Don	MAP 16	B	2	\$ 50,000.00	\$ -		2018	2019
Peacock Surge Pond		DB	Convert to Surge Pond	6AF	AMAFCA		MAP 12	B	2	\$ 853,000.00	\$ 426,500.00		-	-
Powerline Channel & Sed. Basin	Amole Arroyo to Central	CS	Add in-line detention 66AF	21 AF	Private	AMHRD#1	MAP 11	D	2	\$ 3,781,000.00	\$ -		-	-
Raymac Dam Upgrade	W of Coors and Raymac Rd	DD	Detention volume increase to 117 AF		Private		MAP 22	D	1	\$ 2,109,000.00	\$ -		-	-
S 118th Sediment Facility	118th and Dennis Chavez	QQ	Sediment Structure on 2 Arroyos		BC	Don	MAP 16	B	1	\$ 279,000.00	\$ -		2018	2019
Sacate Blanco Storm Drain		SP		36-84"	Private		MAP 17	D	12	\$ 3,430,000.00	\$ -		-	-
Sanchez Farm Tributary Storm Drains (NW)	Goff and Sunset N of Arenal, S of Bridge	SP	Storm drains including pond		BC		MAP 12, 13	A	1	\$ 1,441,000.00	\$ -		2015	2018
Santa Anita Storm Drain	South of Rio Bravo, east and parallel to Isleta	SP	Storm drain, street improvement project		BC		MAP 17	A	1	\$ 4,419,000.00	\$ -		-	-
South 2nd St Drainage Prosperity to SDC	2nd St Prosperity to SDC	SP	Pipe and Ponds along 2nd St		BC	2nd St Drainage Documents	MAP 18	A	1	\$ 12,000,000.00	\$ -		2018	2018
South Branch Borrega Channel	Confluence with Borrega Channel west	CH	Stable channel		Private	AMHRD#09	MAP 17	D	1	\$ 2,000,000.00	\$ -		-	-
South Diversion Channel Outfall Water Quality	Adjacent to SDC outfall to Rio Grande	QQ	SWQ facility adjacent to outfall to Rio Grande		AMAFCA		MAP 18	C	1	\$ 1,134,000.00	\$ 1,134,000.00		2022	2023
South Johniece Storm Drain	South of McCoy Dam	SP	Storm drain		AMAFCA		MAP 22	B	1	\$ 632,000.00	\$ 316,000.00		2020	2021
South Mesa del Sol Detention pond		DB			Mesa del Sol		MAP 23	D	1	\$ 433,000.00	\$ -		-	-
South Powerline Channel/Detention	Powerline Alignment South of Amole Arroyo	CS	Diversion in-line detention w/storm drain	5227 Ft/70 AF	Private	AMHRD#1	MAP 16	D	2	\$ 2,254,000.00	\$ -		-	-
South Powerline Ponds Upgrades		DB			Private		MAP 16	D	2	\$ 361,000.00	\$ -		-	-

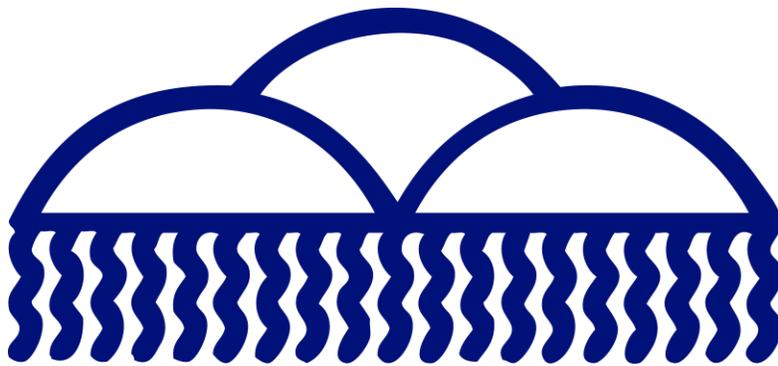
Name	Location	Type	Description	Approximate Size	Lead Agency	Reference	Map Page	Assessment	District	Total Cost	AMAFCA Cost	Partners	Design FY	Const FY
South Rio Bravo Arroyo SD	Enters Hubbell Lake north of Borrega Channel	SP			Private	AMHRD#1	MAP 17	D	1	\$ 1,392,000.00	\$ -		-	-
State Road 45 (Coors) Improvements	Old Coors to Rio Bravo	SP	Drainage Enhancements		NMDOT		MAP 12,17	B	1	\$ 2,932,000.00	\$ -		-	-
Tijeras Arroyo Grade Control and Bank Protection		CS			AMAFCA/KAFB	Tijeras Facility Plan	MAP 18,19,20	B	5	\$ 20,000,000.00	\$ 200,000.00		-	-
Tijeras Sediment Facility Phase 2	Tijeras Arroyo between I-25 and Broadway	QQ			AMAFCA		MAP 18	A	1	\$ 2,885,000.00	\$ 2,885,000.00		2017	2018
Townsend Southwest	Sunset Gardens, Townsend to Coors	SP			COA		MAP 12	B	1	\$ 1,060,000.00	\$ -		2018	2018
Unser/Amole Ponds Evaluation	2 Ponds Along Unser, Arenal & Gibson	R1	Needed to evaluate pond capacity		COA		MAP 12	R	2	\$ 100,000.00	\$ -		-	-
Upper Mesa Del Sol Pond A	Escarpment S of Bobby Foster	DB	Detention Basin		Mesa del Sol		MAP 23	D	5	\$ 180,000.00	\$ -		-	-
Upper Mesa Del Sol Pond B	Escarpment S of Bobby Foster	DB			Mesa del Sol		MAP 23	D	5	\$ 180,000.00	\$ -		-	-
Upper Mesa Del Sol Pond C	Escarpment S of Bobby Foster	DB			Mesa del Sol		MAP 23	D	5	\$ 180,000.00	\$ -		-	-
Upper Mesa Del Sol Pond D	Escarpment S of Bobby Foster	DB			Mesa del Sol		MAP 23	D	5	\$ 180,000.00	\$ -		-	-
Upper Mesa Del Sol Pond E	Escarpment S of Bobby Foster	DB			Mesa del Sol		MAP 23	D	5	\$ 180,000.00	\$ -		-	-
Upper Snow Vista Channel Improvements Study		R1	Identify ponding areas and wq		AMAFCA		MAP 12	B	2	\$ 100,000.00	\$ 100,000.00		2019	2019
Valle de Oro Pond & WQ Facility		DB		49 Ac Ft	AMAFCA		MAP 22,23	B	1	\$ 4,058,000.00	\$ 4,058,000.00		2018	2019
Valle del Sol Channel Improvements	I-25 to University	CS			Private		MAP 18	D	5	\$ 15,990,000.00	\$ -		-	-
Valley Rd Storm Drain	Valley Rd, Tapia, Jerry Rd	SP			BC		MAP 17	C	1	\$ 402,000.00	\$ -		-	-
Vista Del Rio Phase 4		SP			BC		MAP 12,13,17	A	1	\$ 3,180,000.00	\$ -		2014	2016
Westgate Dam EAP		R	Emergency Action Plans		AMAFCA		MAP 11	R	1	\$ 50,000.00	\$ 50,000.00		2018	2018

Project Schedule Water Quality Facility Scoring - Area 3

Summary: There were a total of six stormwater quality projects in Area 3 which ranged in total price from \$50,000 to \$2,885,000. Using the aforementioned criteria, the project which scored the highest was the Black Mesa Water Quality with 4 points.

Name	Total Cost	WQ in RG Flow path	Cost Points	Flow Path" Points"	"Bosque Bonus"	Total Points	Notes
Amole Del Norte Inlet WQ	\$ 500,000.00	Existing WQ Below	ERROR	1	0	1	
Black Mesa Water Quality	\$ 874,000.00	Existing WQ Above	1	1	2	4	
Paakweree WQ	\$ 50,000.00	Existing WQ Below	2	1	0	3	
S 118th Sediment Facility	\$ 279,000.00	Existing WQ Below	2	1	0	3	
South Diversion Channel Outfall Water Quality	\$ 1,134,000.00	Existing WQ Above	0	1	2	3	
Tijeras Sediment Facility Phase 2	\$ 2,885,000.00	Existing WQ Below	0	1	0	1	

AMAFCA 2018 Project Schedule



Area 4

Name	Location	Type	Description	Approximate Size	Lead Agency	Reference	Map Page	Assessment	District	Total Cost	AMAFCA Cost	Partners	Design FY	Const FY
2nd St Storm Drain at Candelaria	Mildred Ave N to Delmar Rd	SP	Parallel SD in 2nd St with 41 cfs pump station	42" RCP	COA	ARDRD#02	MAP 8	C	3	\$ 2,400,000.00	\$ -		-	-
2nd St Storm Drain at Griegos	San Clemente north	SP	Parallel SD in 2nd St with 41 cfs pump station	42" RCP	COA	ARDRD#02	MAP 8	C	3	\$ 3,700,000.00	\$ -		-	-
Airport Arroyo Water Quality Enhancement	Airport Arroyo Outfall	QQ	Treatment system for hydrocarbons		COA		MAP 18	C	1	\$ 251,000.00	\$ -		-	-
Airport Tributary Grade Control Structure	S of E/W runway	CS	Grade control structures on north escarpment		COA	TJRD#06	MAP 19	C	5	\$ 687,000.00	\$ -		-	-
Alameda Drain (Menaul to I-40)	I-40 N and E to Indian School Rd	CS	Add 2 high berms along sides of existing e	56 TW; 1.5:1SS;	COA/MRGCD	ARDRD#02	MAP 8	C	1	\$ 380,800.00	\$ -		-	-
Alameda Drain Channel Improvements Phase 1	Riverside Drain to Mountain Rd	CS	Concrete lined sideslopes; natural bottom	13 BW; 6.5 (+)H; 1.5:1 SS; 34 TW	COA/MRGCD	ARDRD#02	MAP 12	C	1	\$ 1,300,000.00	\$ -		-	-
Alameda Drain Channel Improvements Phase 2	4th St N to Montano Rd	CS	Widen earth lined trapezoidal channel; 2 r	17 to 23 BW; 7 to 8.5 H; 1.5:1 SS;	COA/MRGCD	ARDRD#02	MAP 8	C	3	\$ 3,100,000.00	\$ -		-	-
Alameda Drain Hydraulic Study	Alameda Drain river to NDC	R1	Study Alameda Drain to determine needs		COA		Map 12,13,8,3R		134	\$ 400,000.00	\$ 100,000.00		-	-
Alameda Drain Improvements (I-40 to Mountain)	Alameda Drain Mountain Rd N to I-40	CS	Widen existing channel	46 BW; 8H; 1.5:1SS; 72 TW	COA/MRGCD	ARDRD#02	MAP 8,12,13	C	1	\$ 800,000.00	\$ -		-	-
Alameda Drain Improvements (Montano to PDN)	Montano Rd N to Paseo del Norte	CS	Widen earth lined trapezoidal channel	14 to 20 W; 8.5 to 9 H; 1.5: 1ss	BC/MRGCD	ARDRD#02	MAP 3,8	C	34	\$ 2,400,000.00	\$ -		-	-
Alameda Drain Improvements (Mountain to Central)	Riverside Drain to Mountain Rd	CS	Concrete lined sideslopes; natural bottom	13 BW; 6.5 (+)H; 1.5:1 SS; 34 TW	COA/MRGCD	ARDRD#02	MAP 12	C	1	\$ 709,000.00	\$ -		-	-
Alameda Drain Improvements (NDC to PDN)	Paseo del Norte N to N Div. Channel	CS	Widen earth lined trapezoidal channel to A	14 W; 9 H; 1.5:1ss	BC/MRGCD	ARDRD#02	MAP 3	C	4	\$ 1,834,000.00	\$ -		-	-
Alameda Drain upgrade (4th to Menaul)	Indian School Rd East to 4th St	CS	Add 2 high berms @ 4th and 12 St. and culv	12 BW; 8-10 H: 1.5:1 SS	COA/MRGCD	ARDRD#02	MAP 8	C	1	\$ 1,600,000.00	\$ -		-	-
Alameda Lateral Wasteway	Edith to Edith Basin 2	SP			MRGCD		MAP 8	C	3	\$ 229,000.00	\$ -		-	-
Alb Riverside Drain Barr Canal Diversion	Junction of Riverside Drain and Barr Main Canal	CS	Extend existing weir structure to divert irr flows	Weir length = 100	MRGCD	ARDRD#02	MAP 13	C	1	\$ 430,000.00	\$ -		-	-
Albuquerque Riverside Drain	100' N of Rio Bravo Blvd	CS	Add 2 berms upstream of Rio Bravo	20 to 33 BW; 7 to 12 H; 1.5:1SS	MRGCD	ARDRD#02	MAP 13, 18	C	1	\$ 313,000.00	\$ -		-	-
Albuquerque Riverside Drain Culvert Removal	Barelas P.S. N to Alcalde P.S.	CS	Culvert removal at Laguna Blvd.		MRGCD	ARDRD#02	MAP 13	C	1	\$ 825,000.00	\$ -		2018	2018
Alcalde Pump Station Diversion	Abq riverside drain at Alcalde PS	SP			COA		MAP 13	C	1	\$ 1,245,000.00	\$ -		-	-
Alcalde Pump Station Outfall WQ	Alcalde Pump Station	QQ	End of pipe WQ facility		AMAFCA	Mid Valley DMP	MAP 13	C	1	\$ 419,000.00	\$ 209,500.00	COA	-	-
Barelas Pump Station Outfall WQ	Barelas Pump Station	QQ	End of pipe WQ facility		AMAFCA	Mid Valley DMP	MAP 13	C	1	\$ 419,000.00	\$ 209,500.00	COA	2018	2018
Broadway-Baca Storm Drain		SP		48"	COA	Mid Valley DMP	MAP 13	C	1	\$ 1,797,000.00	\$ -		-	-
Commercial-McKnight Storm Drain		SP		54"	COA	Mid Valley DMP	MAP 8	C	1	\$ 2,024,000.00	\$ -		-	-
Cutler-McKnight Storm Drain		SP		54"	COA	Mid Valley DMP	MAP 8	C	1	\$ 2,128,000.00	\$ -		-	-
Daniel Circle Restudy		R1	Restudy to determine extent of Daniel Circle Project		BC		MAP 3	R	4	\$ 100,000.00	\$ -		-	-
Edith-Hannett Storm Drain		SP		24"	COA	Mid Valley DMP	MAP 13	C	1	\$ 1,222,000.00	\$ -		-	-
GE Pond	S of Woodward, W of San Jose Drain	DB	Regional Pond		AMAFCA		MAP 13	B	1	\$ 4,042,000.00	\$ 2,021,000.00	COA	2019	2019
Grade Control Repair	West of I-25, South of Sunport	GC	Repair of flanked grade control structure		NMDOT		MAP 18	A	1	\$ 250,000.00	\$ -		-	-
I-25 Storm Drain	Prosperity Extension to Tijeras Arroyo	SP		42"-66"	BC	SEVDMP*	MAP 18	B	1	\$ 2,915,000.00	\$ -		-	-
Iron Diversion Storm Drain	From 14th and Iron to Alcalde Pump Station	SP	Storm drain reconstruction	66"	COA		MAP 13	A	1	\$ 2,008,000.00	\$ -		-	-
Karsten Area Restudy	Near Karsten Ct	R1	Restudy of drainage from I-25 past Broadway		AMAFCA	Councilor Benton	MAP 13	A	1	\$ 100,000.00	\$ 100,000.00		2018	-
Kirtland Inlet Water Quality		QQ			AMAFCA	Kurt	MAP 13	C	1	\$ 1,240,000.00	\$ 1,240,000.00		-	-
Lomas Storm Drain at University	Medical Arts to Mountain Rd	SP			COA	Mid Valley	MAP 13	C	5	\$ 751,000.00	\$ -		-	-
Lower Phoenix Storm Drain	Princeton to University	SP			COA		MAP 8	B	3	\$ 2,043,000.00	\$ -		-	-
Marble/Arno Pond		DB		10.11 AF	COA	Mid Valley	MAP 13	A	1	\$ 12,000,000.00	\$ 6,000,000.00		2016	2018
Marble/Arno Pump Station	Near Broadway and Arno	PS	New Pump Station		COA	Mid Valley	MAP 13	A	1	\$ 1,000,000.00	\$ -		2018	2018
Max's Inlet Water Quality		QQ	Wier Structure		AMAFCA	Kurt	MAP 18	B	1	\$ 745,000.00	\$ 745,000.00		2024	2024
McKnight Pond		DB		9 AF	COA		MAP 8	C	1	\$ 1,101,000.00	\$ -		-	-
McKnight Pond Outfall	3rd St from McKnight to Constitution	SP		54"	COA	Mid Valley DMP	MAP 8,13	C	1	\$ 2,315,000.00	\$ -		-	-
Medical Arts Pond		DB			COA	Mid Valley	MAP 13	C	5	\$ 264,000.00	\$ -		-	-
Montano Pump Station #47 Upgrade	N of Montano, E of Rio Grande Blvd	PS	Inflow from Montano Storm Drain, force main discharge to Rio Grande		COA	NVERD#04	MAP 8	C	4	\$ 1,000,000.00	\$ -		-	-
Montano Pump Station Diversion	Alameda Drain/Montano Blvd	SP	Overflow weir to divert flood flow to Mont PS	L=30	COA	ARDRD#02	MAP 8	C	3	\$ 722,000.00	\$ -		-	-
North 4th St Storm Drain	4th St to PDN Storm Drain	SP			BC		MAP 3	B	4	\$ 2,999,000.00	\$ -		2016	2017
North Edith Pond Outfall	North Edith Pond to NDC	SP			BC		MAP 4	C	4	\$ 425,000.00	\$ -		2018	2018
North Edith Pump Station Water Quality	Alameda Business Park Pond/Pumpstation	QQ			COA		MAP 3	C	4	\$ 277,000.00	\$ -		-	-
North Wells Park Pond		DB		13 AF	COA	Mid Valley	MAP 13	C	1	\$ 3,206,000.00	\$ -		-	-
North Wells Park Storm Drain	5th & Summer to Constitution to 3rd St	SP		54"	COA	Mid Valley	MAP 13	C	1	\$ 2,009,000.00	\$ -		-	-
Ortega/Garduno Storm Drain/PDN Pond	North of PDN, East of Chamisal Lateral	SP	Storm drain		Los Ranchos		MAP 3	C	4	\$ 2,587,000.00	\$ -		-	-
Osuna Storm Drain Phase 2	Osuna Rd	SP	Storm drain down Osuna Road		COA		MAP 8	B	34	\$ 3,512,000.00	\$ -		-	-
Pond 2149		DB		20 af	BC	SEVDMP	MAP 18	B	1	\$ 703,000.00	\$ -		2020	2021
Prosperity Storm Drain	I-25 to SDC	SP		42"-66"	BC	SEVDMP*	MAP 18	B	1	\$ 2,416,000.00	\$ -		-	-
Railyard Water Quality	Railyard	QQ	From 2010 Tech Team		COA		MAP 13	D	1	\$ 745,000.00	\$ -		-	-
Rio Grande San Pasquale Storm Drain	Mountain & Rio Grande	SP			COA	Mid Valley	MAP 13	C	1	\$ 7,238,000.00	\$ -		-	-
San Jose Drain Channel	Riverside Drain E and N to Woodward Rd	CS	Conc. low flow channel, gravel bottom; Nat	10 BW low flow; 40 BW; 10 H; 3:1	COA	SJDRD#01	MAP 13, 18	A	1	\$ 6,350,000.00	\$ -		-	-
San Jose Drain Lining Feasibility Study		R1		COA	COA		MAP 13,18	A	1	\$ 300,000.00	\$ -		-	-
Santa Barbara Park Pond		DB		6AF	COA	Mid Valley DMP	MAP 8,13	C	1	\$ 533,000.00	\$ -		-	-
SDC Broadway GC Storm Water Quality Facility		QQ			AMAFCA		MAP 18	C	1	\$ 2,849,000.00	\$ 2,849,000.00		2023	2024
South 2nd St Drainage Prosperity to SDC	2nd St Prosperity to SDC	SP	Pipe and Ponds along 2nd St		BC	2nd St Drainage Documents	MAP 18	A	1	\$ 12,000,000.00	\$ -		2018	2018
South Broadway Pond Expansion	N of S. Broadway Pond	DB			COA	S Broadway Study	MAP 13	B	1	\$ 75,000.00	\$ -		-	-
Stock Rd Storm Drain	East of Broadway to San Jose Drain	SP		54"	Private		MAP 13	D	1	\$ 380,000.00	\$ -		-	-
Sunport Extension Drainage	I-25 to Broadway	SP			BC	Drainage Rpt	MAP 13	C	1	\$ 443,000.00	\$ -		2017	2018

Project Schedule Water Quality Facility Scoring - Area 4

Summary: There were a total of eight stormwater quality projects in Area 4 which ranged in total price from \$251,000 to \$2,849,000. Using the aforementioned criteria, the projects which scored the highest were the Alcalde Pump Station Outfall WQ and the Barelvas Pump Station Outfall WQ with 7 points each.

Name	Total Cost	WQ in RG Flowpath	Cost Points	Flow Path" Points"	"Bosque Bonus"	Total Points	Notes
Airport Arroyo Water Quality Enhancement	\$ 251,000.00	Only WQ Facility	2	3	0	5	
Alcalde Pump Station Outfall WQ	\$ 419,000.00	Only WQ Facility	2	3	2	7	
Barelvas Pump Station Outfall WQ	\$ 419,000.00	Only WQ Facility	2	3	2	7	
Kirtland Inlet Water Quality	\$ 1,240,000.00	Existing WQ Below	0	1	0	1	
Max's Inlet Water Quality	\$ 745,000.00	Only WQ Facility	1	3	0	4	
North Edith Pump Station Water Quality	\$ 277,000.00	Existing WQ Below	2	1	0	3	
Railyard Water Quality	\$ 745,000.00	Only WQ Facility	1	3	0	4	
SDC Broadway GC Storm Water Quality Facility	\$ 2,849,000.00	Existing WQ Below	0	1	0	1	

AMAFCA 2018 Project Schedule

Map Legend

Legend:



..... Solid Yellow Line..... Hard side (concrete, soil cement, etc.) channel



..... Yellow Ladder Soft side (dirt, rip rap, etc.) channel



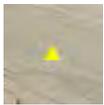
..... Dashed Yellow Line..... Storm drain or pipe



..... Solid Yellow Line with Black Border Crossing Structure



..... Yellow Chevrons Dike, Bern, Bank Protection, or Levee



..... Yellow Triangle Grade control Structure



..... Yellow Drop Water quality feature



..... Yellow Dot Study



..... Yellow Polygon Detention Basin

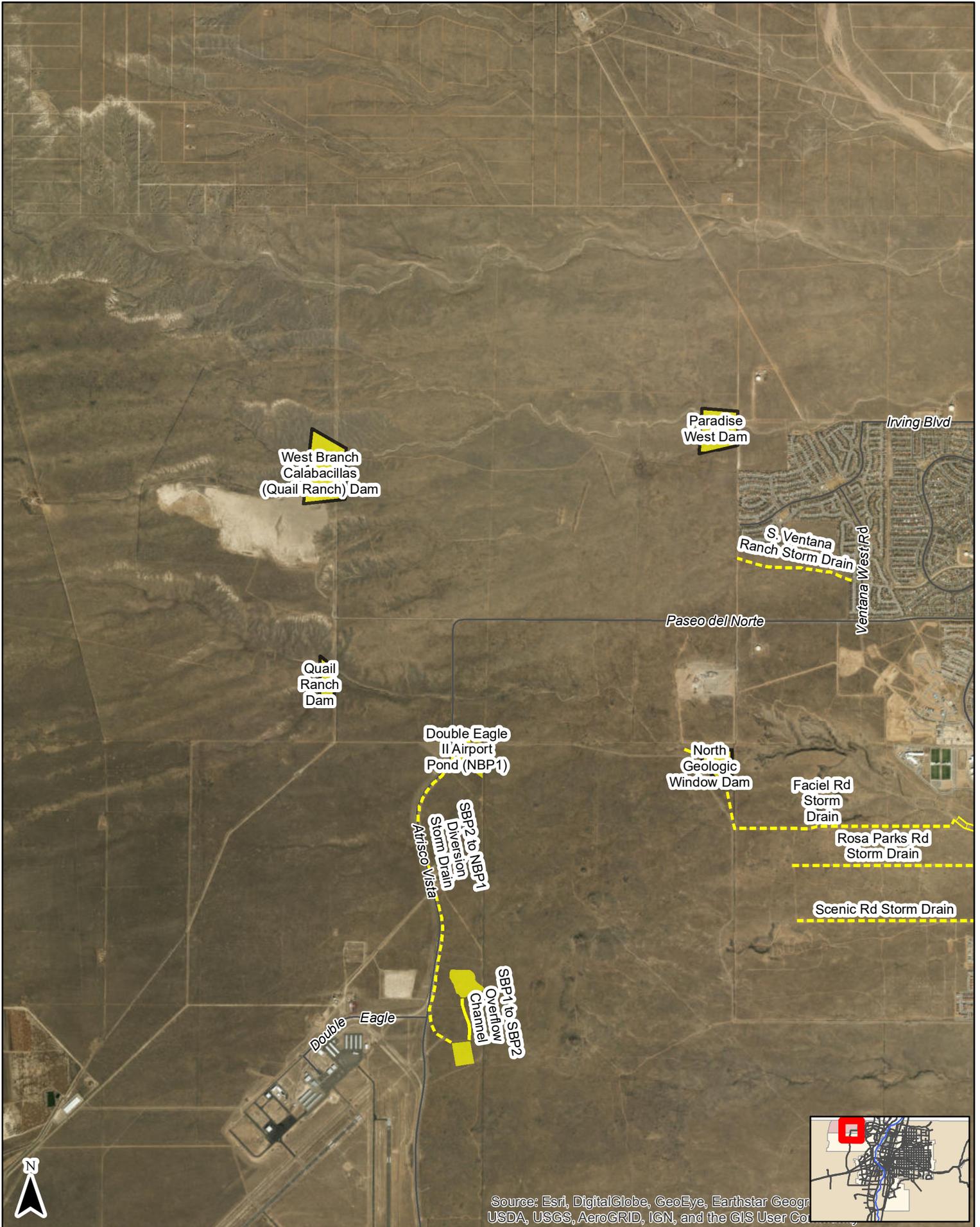


..... Yellow Polygon With Black Border Detention Dam



..... Hatched Yellow Polygon..... Study Area

Map 1



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geogr
USDA, USGS, AeroGRID, IGN, and the GIS User Co

Photo Date February 2014

Map 2



Map 3



Map 4



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geogr
USA, USGS, AeroGRID, IGN, and the GIS User Co

Photo Date February 2014

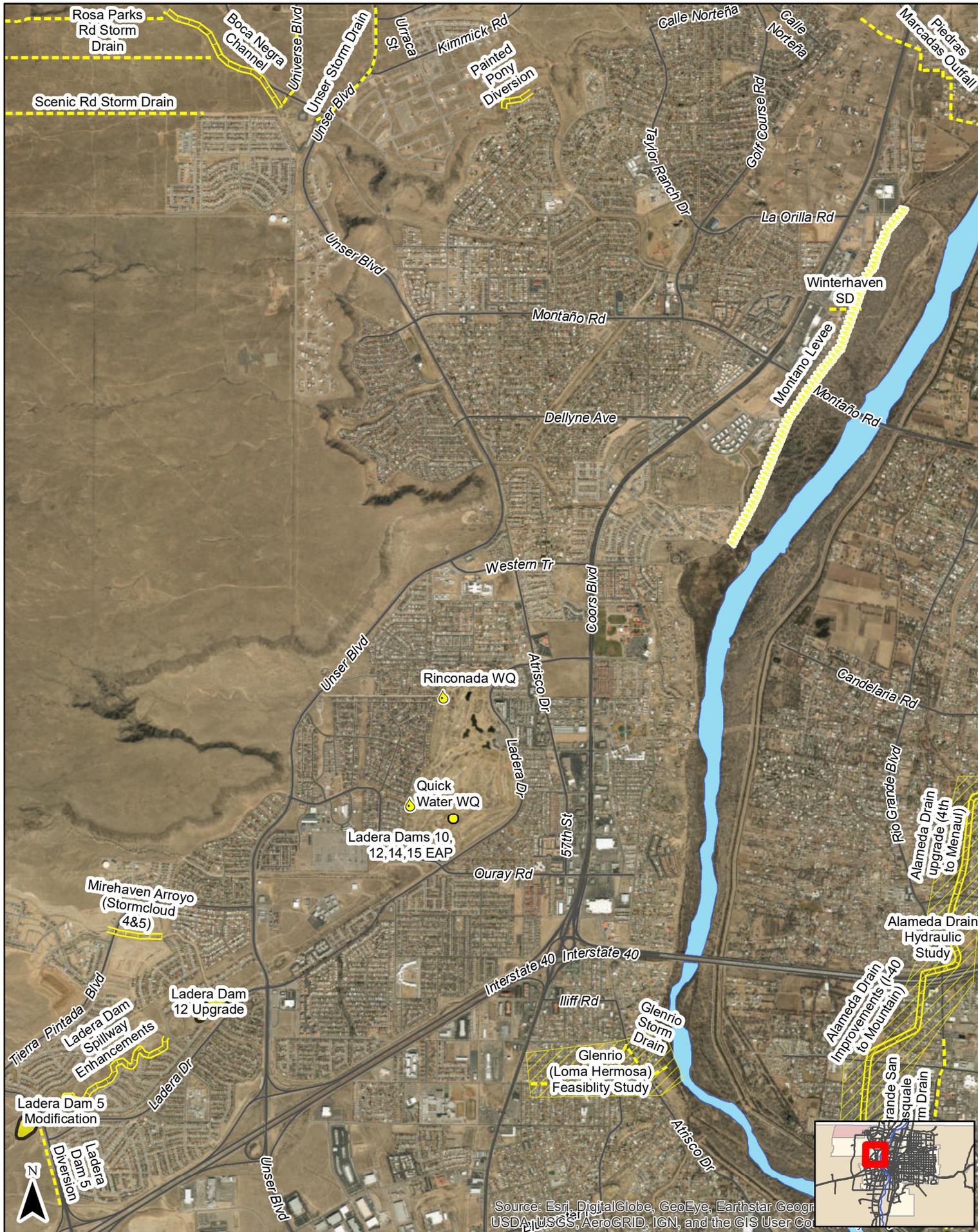
Map 5



Map 6



Map 7



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geogr
USDA, USGS, AeroGRID, IGN, and the GIS User Co

Photo Date February 2014

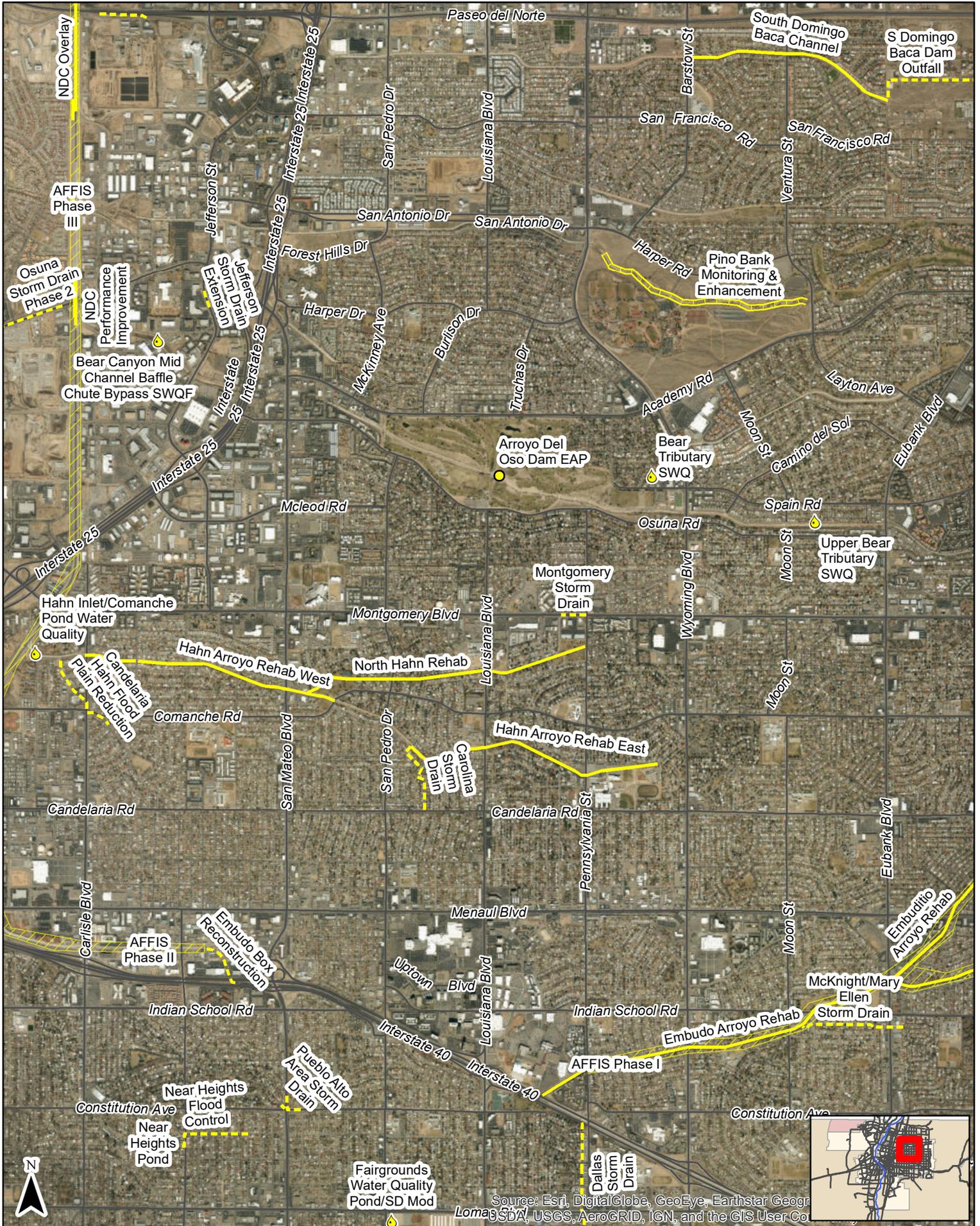
Map 8



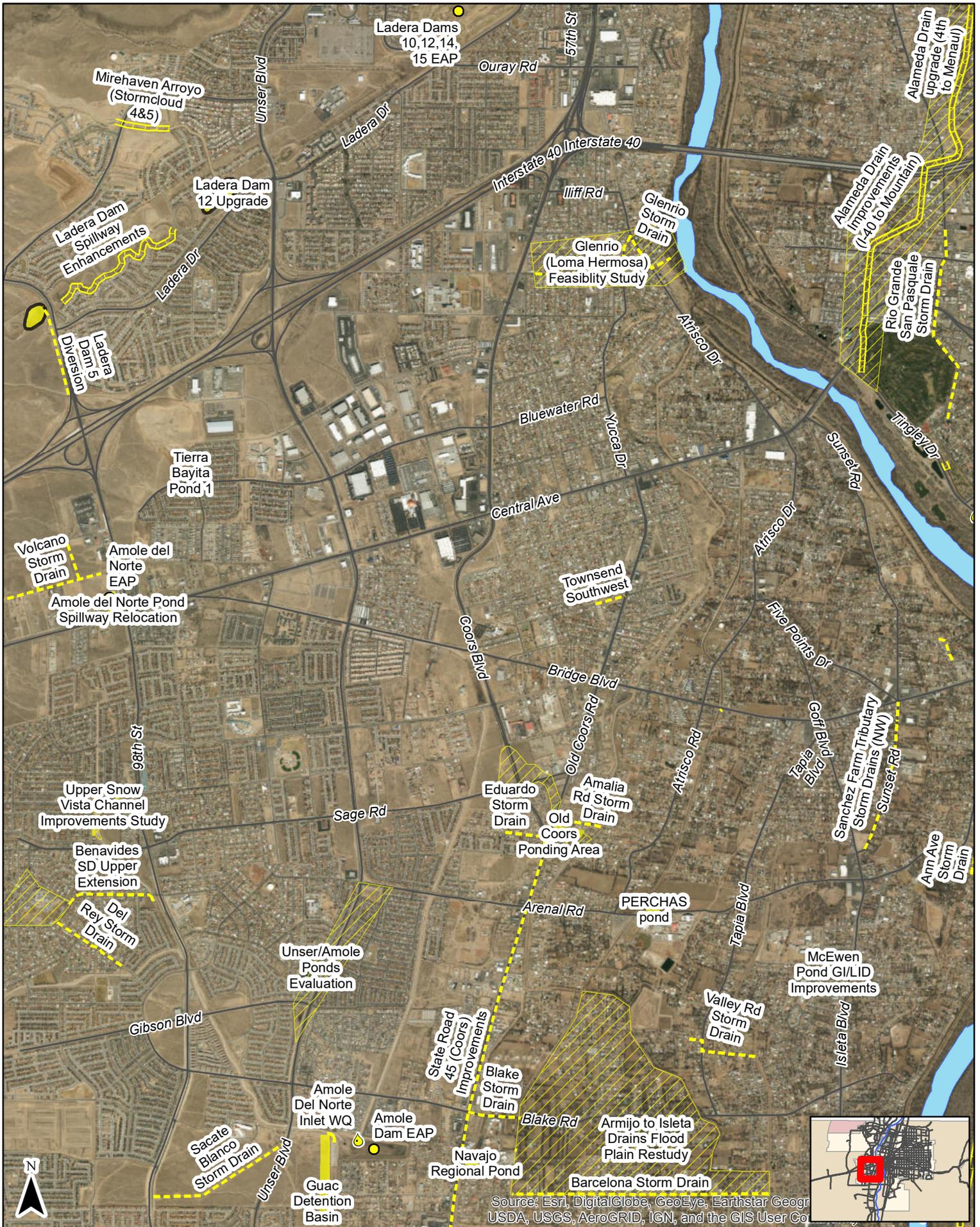
Source: Esri, DigitalGlobe, GeoEye, Earthstar, GeoEye, USDA, USGS, AeroGRID, IGN, and the GIS User Co



Map 9



Map 12



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geogr
USDA, USGS, AeroGRID, IGN, and the GIS User Co

Map 13



Map 14

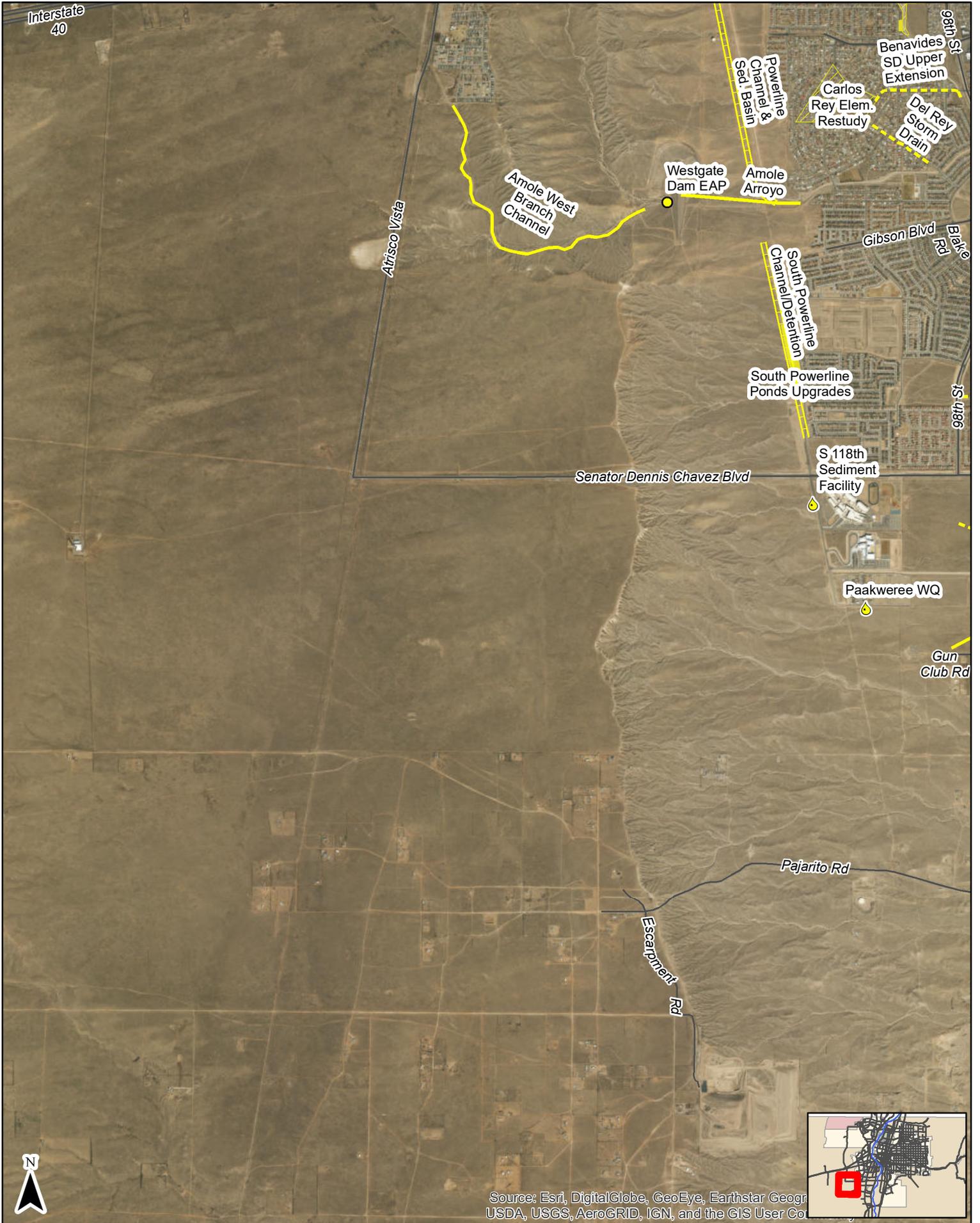


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNR/Airphoto, IGN, USA, USGS, AeroGRID, IGN, and the GIS User Community

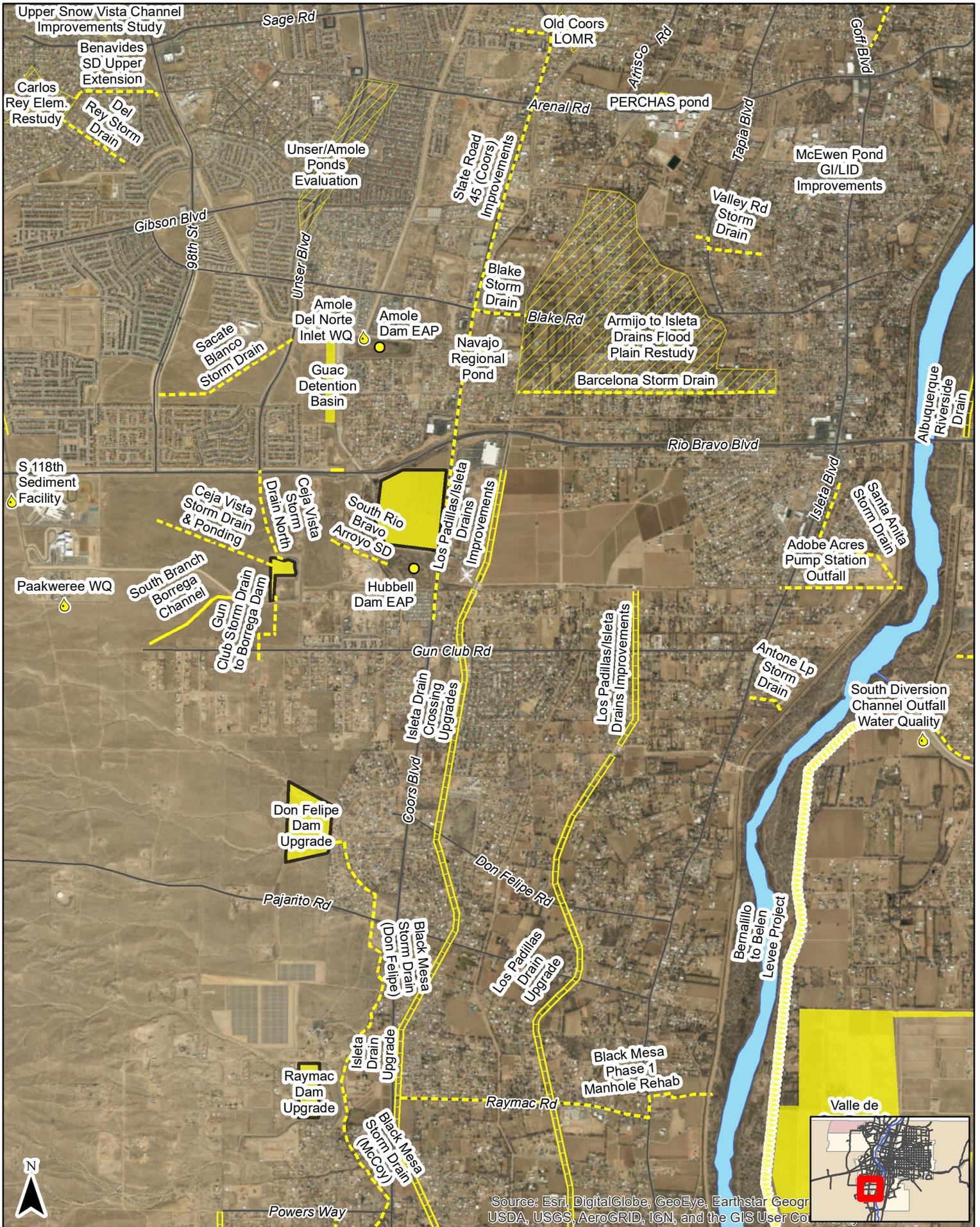
Map 15



Map 16

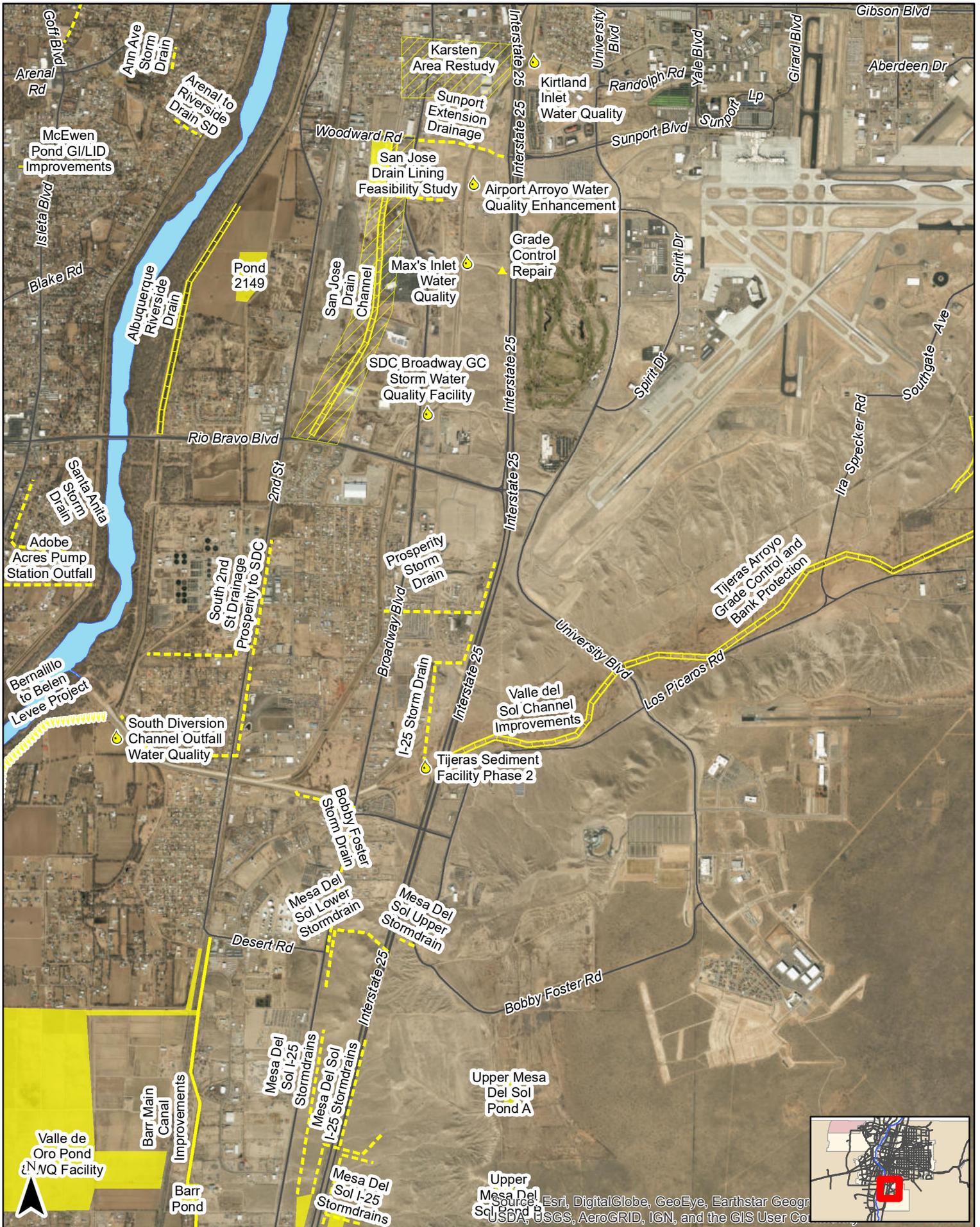


Map 17



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geogr
 USDA, USGS, AeroGRID, IGN, and the GIS User Co

Map 18



Valle de Oro Pond
& NQ Facility

Upper Mesa Del Sol Pond B
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geogr
USDA, USGS, AeroGRID, IGN, and the GIS User Co



Map 19



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geogr
USDA, USGS, AeroGRID, IGN, and the GIS User Co

Map 20



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geogr, USDA, USGS, AeroGRID, IGN, and the GIS User Co

Photo Date February 2014

Map 21



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geogr
USDA, USGS, AeroGRID, IGN, and the GIS User Co

Photo Date February 2014

Map 22



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geogr
USDA, USGS, AeroGRID, IGN, and the GIS User Co

Photo Date February 2014

Map 23



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geogr
USDA, USGS, AeroGRID, IGN, and the GIS User Co



Map 24



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNR/Airphoto, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Photo Date February 2014

Map 25



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNR AeroGlobe, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Photo Date February 2014