FY 2018 MS4 Annual Report
in Compliance with
Watershed Based Permit NMR04A000

County of Bernalillo

State of New Mexico

Natural Resource Services

December 1, 2018

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3 AMAFCA 2018 Project Schedule

Annual Report Format

National Pollutant Discharge Elimination System Stormwater Program
MS4 Annual Report Form

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

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

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

1. MS4(s) Information

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, 2017 to Jun 30, 2018

2. Water Quality Priorities

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

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

Impaired Water	Impairment	Approved TMDL		TMDL assigns WLA to MS4	
Rio Grande NM 2105_50 (Islet	E. coli	☒ Yes	☐ No	☒ Yes	☐ No
Rio Grande NM 2105_50 (Islet	Dissolved Oxygen	☐ Yes	☒ No	☐ Yes	☐ No
Rio Grande NM 2105_50 (Islet	PCBs-Fish Consumption Advi	☐ Yes	☒ No	☐ Yes	☐ No
Rio Grande NM 2105.1_51 (Ti	E. coli (no impairment, has TM	☒ Yes	☐ No	☒ Yes	☐ No

2. B. Continued

Impaired Water	Impairment	Approved TMDL		TMDL assigns WLA to MS4	
Rio Grande NM 2105.1_51 (Ti	Dissolved Oxygen	☐ Yes	☒ No	☐ Yes	☐ No
Rio Grande NM 2105.1_51 (Ti	Temperature	☐ Yes	☒ No	☒ Yes	☐ No
Rio Grande NM 2105.1_51 (Ti	PCBs-Fish Consumption Advi	☐ Yes	☒ No	☐ Yes	☐ No
Tijeras Arroyo NM-9000.A_00	Nutrients	☒ Yes	☐ No	☒ Yes	☐ 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); grease-FOG (DO, nutrients & E. co

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, septic system waste, trash & debris, and household hazardous 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 ≥ 1 acre in operation in your jurisdiction at any time during the reporting period. 10

D. How many of the sites identified in 4.C did you inspect during this reporting period? 10

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

On average, 3 site inspections are conducted for each project. A minimum of 1 inspection occurs with as many as 5 insp

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 co

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

☐ Yes	Notice of violation	0	No Authority	☐
☐ Yes	Administrative fines		No Authority	☒
☐ Yes	Stop Work Orders	0	No Authority	☐
☐ Yes	Civil penalties		No Authority	☒
☐ Yes	Criminal actions	0	No Authority	☐
☐ Yes	Administrative orders	0	No Authority	☐
☐ Yes	Other			

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

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

Absence of or improperly placed rain gages; SWPPP book not on-site/not immediately available; mud/dirt tracking issu

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

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. 5

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?

All

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? All

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? 32

K. Of those illicit discharges/illegal connections that have been discovered or reported, how many have been eliminated? 30

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

6. Stormwater Management for Municipal Operations

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

All public parks, ball fields, other recreational facilities and other open spaces	☒ Yes	☐ No
All municipal construction activities, including those disturbing less than 1 acre	☒ Yes	☐ No
All municipal turf grass/landscape management activities	☒ Yes	☐ No
All municipal vehicle fueling, operation and maintenance activities	☒ Yes	☐ No
All municipal maintenance yards	☒ Yes	☐ No
All municipal waste handling and disposal areas	☒ Yes	☐ No

Other See Annotations document

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

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

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

Procedures in place for drainage and street sweeping, but not formalized as written protocols.

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? Please see Annotations document for full response

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

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

Site plan reviews for stormwater/water quality of all new and re-development projects?	☒ Yes	☐ No
Long-term operation and maintenance of stormwater management controls?	☒ Yes	☐ No
Retrofitting to incorporate long-term stormwater management controls?	☐ Yes	☒ No

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

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

All development & redevelopment projects with land disturbances >= 1 ac. See Annotations document for full response

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.

https://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? 120

H. How many of the plans identified in 7.G were approved? 59

I. How many privately owned permanent stormwater management practices/facilities were inspected during the reporting period? 5

J. How many of the practices/facilities identified in I were found to have inadequate maintenance? none

K. How long do you give operators to remedy any operation and maintenance deficiencies identified during inspections? 30 days

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

M. How many formal enforcement actions (i.e., more than a verbal or written warning) were taken for failure to adequately operate and/or maintain stormwater management practices? none

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? annually

8. Program Resources

A. What was the annual expenditure to implement MS4 permit requirements this reporting period? $1,924,619

B. What is next year's budget for implementing the requirements of your MS4 NPDES permit? $1,700,000

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

Source:	Amount $	OR %
1/8th Environmental Gross Receipts Tax	203,415	
General Fund Revenues	1.46 M	
Open Space Mill Levy	245,878	

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)? 7

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
Example: E. coli	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 data collected (2 years, 6 samples) by Compliance Monitoring Coop. (CMC), trends have not yet been identified.

10. Additional Information

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

Certification Statement and Signature

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. ☒ Yes ☐ No

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

Signature [signature] ROGER A. PAUL, DCM FOR PW — Name of Certifying Official, Title — 11/28/2018 — 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 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, re-named PCBs – Fish Consumption Advisory in Draft 2018-2020 Report
Rio Grande NM-2105_51 (Tijeras Arroyo to Alameda Bridge)	Temperature, water
Tijeras Arroyo NM-9000.A_001 (Four Hills Bridge to headwaters)	Nutrients***

*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 & considering Draft 2018-2020 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.

**A TMDL for nutrients in the Tijeras Arroyo was finalized on 10/12/2017.

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 of July 1, 2017, through June 20, 2018, the Bernalillo County Public Outreach programs connected with and educated thousands of Bernalillo County residents. Overall, the educational programs and outreach activities conducted by Bernalillo County during this reporting period connected an estimated 259,000 times with County residents. Outreach results are estimated from the Bernalillo County website, monthly

newsletters, mailing inserts, presentations, education outreach activities, and various public events results. The table below provides a summary of outreach efforts and outcomes.

Public Education Outreach	Date	Successful Outcome
Bernalillo County website pages related to MS4 program and stormwater	July 1, 2017 to June 20, 2018	Analytics show webpages had 1,615 page-views.
Bernalillo County Septic Systems Permits and "Unpermitted Campaign" Outreach Program	July 1, 2017 to June 20, 2018	Bernalillo County had 114 new wastewater permits (septic system permits), 29 septic abandonments and connections to public sewer utilities, and sent letters through the "unpermitted campaign," which resulted in an estimated 383 properties permitted for septic systems in FY 2018.
Bernalillo County / City of Albuquerque (COA) Cooperative Household Hazardous Waste (HHW) Collection Center		Bernalillo County contributed over $80,000 to support joint efforts with COA for the HHW collection center. In FY2018, 1,693 County participants and 9,894 City of Albuquerque residents participated in the Hazardous Waste Collection Programs. 425,517 pounds of HHW were disposed of at the Advanced Chemical Transport (ACT) HHW Collection Center.
Bernalillo County HHW Neighborhood Collection Events	July 1, 2017 to June 20, 2018	In FY 2018, Bernalillo County hosted 9 HHW weekend neighborhood collection events in association with mini-cleanup events. During the 9 events, 244 individuals participated and 10,512 pounds of HHW were collected at a cost of $25,133. Most 2018 collection events were held in the East Mountain area and a few previously discontinued locations were revisited. A HHW report is available upon request. The HHW report includes historical trend analysis for this outreach program as well as specific collection data per location. An estimated 69.27 tons of trash was collected at 4 events that were tracked.
BernCo at A Glance Monthly Newsletters	July 1, 2017 to June 20, 2018	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

Public Education Outreach	Date	Successful Outcome
		that these monthly newsletters reach 1,000 people per month and 12,000 people annually.
Bernalillo County Support of Valle de Oro which supports Earth Force – Keep it Clean – Neighborhood Environmental Trios	July 1, 2017 to June 30, 2018	Earth Force – Keep It Clean reached an estimated 400 students and teachers in FY 2018. 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, 2017 to June 30, 2018	- Reached approximately 8,403 people (with repeats) throughout New Mexico through their outreach activities. - Bernalillo County classrooms participated in monthly monitoring programs at 17 monitoring sites. - Annual BEMP Conference for students (4th through 12th graders). -Several additional outreach programs including Rio Grande Confluence Meeting, STEMinar at CNM, Horizon's Program Super Saturdays and summer programs.
Bernalillo County Employee Training - Stormwater Quality Training and IDDE Training	July 1, 2017 to June 30, 2018	Bernalillo County began using a video training service - Excal Visual, Inc. In FY 2018, 49 people completed the Rain Check Training (general stormwater quality training) and 66 completed the IDDE training. Additionally, Bernalillo County has added these two trainings to the required list for all new employees when they start working at the County.
New Mexico Aquifer Conference – NM State Bar Association	July 12, 2017	Bernalillo County presentation on MS4 public outreach and public involvement and participation. Attendance included 80 people.
Los Ranchos Lavender Festival	July 15, 2017	Bernalillo County had a water quality booth at the festival with SWQ survey distribution. Attendance included approximately 10,000 people.
Septic Systems and Their Effects on Groundwater	August 18, 2017	A free 2-hour class providing education related to septic system contamination, the impact on groundwater and how it can be prevented with proper maintenance. This workshop is open to all Bernalillo County residents, septic contractors and real estate agents.

Public Education Outreach	Date	Successful Outcome
NMRPA Mini-Conference	August 24, 2018	Bernalillo County presentation on stormwater quality and erosion control for Parks & Rec applications. Attendance included approximately 50 people.
EPA Region 6 Stormwater Conference – Urban Waters, Green Infrastructures, and Resilient Communities, San Antonio, TX	Sept. 17 – 21, 2017	Bernalillo County presented at this regional conference on monitoring under a Watershed Based MS4 Program, TMDLs, and Urban Waters. Attendance included approximately 385 people.
East Mountain Celebration	September 24, 2017	This is a family-friendly event, and kids can enjoy free activities like face painting, fun jumps, a petting zoo and obstacle courses. Bernalillo County had a water quality booth at the festival. Attendance included approximately 200 people.
NMED – EPA Presentation	September 25, 2017	Bernalillo County gave a presentation on monitoring under a Watershed Based MS4 Program. Attendance included approximately 20 people.
RiverXchange Watershed Presentation at Bandelier Elementary School	October 27, 2017	Bernalillo County supports RiverXchange which gave a presentation to two 4th grade classes. Attendance included approximately 45 people.
EPA Region 6 Stormwater Conference - 2018 Planning Committee	Oct. 2017 – July 2018	The 2018 EPA Region 6 Stormwater Conference in Albuquerque, NM began planning activities in Oct. 2017. Bernalillo County took on a major role in planning this conference.
Drug Take Back Event	October 28, 2018	Drug Take Back Event, provides a safe, convenient, and responsible way of disposing of unused, unwanted or expired medications.
KOB TV Health & Wellness Fair	January 28-29, 2018	Bernalillo County teamed with the Mid Rio Grande Stormwater Quality Team at this outreach event, which had an estimated attendance of 8,000 people. 584 stormwater quality surveys were administered during this event.
2018 Arid LID Land and Water Summit – The Ripple Effect: Stormwater & Tree Canopy	February 21-23, 2018	Bernalillo County was a financial sponsor for this conference with attendees including engineering professionals, developers, and landscapers. Attendance included approximately 137 people.

Public Education Outreach	Date	Successful Outcome
RiverXchange Watershed Presentation at Zia Elementary School	March 1, 2018	Bernalillo County supports RiverXchange which gave presentations to two 4th grade classes. Attendance included approximately 45 people.
ABCWUA mailing insert – Flood Alert & Household Hazardous Waste Education/Disposal	April 1, 2018	ABCWUA mailing insert reached approximately 207,000 households. The insert included information on proper oil disposal, where to take other household hazardous waste, and how to maintain property-gutters, culverts, flow paths.
Talking Talons – Tijeras Restoration Project	April 13, 2018	An estimated 55 students participated in the Talking Talons Bernalillo County Open Space programs.
Earth Day Celebration with the Forest Service	April 20, 2018	Bernalillo County spoke with Forest Service employees about water conservation programs in Bernalillo County and donated a rain barrel for a free drawing. Attendance included approximately 200 people.
Valle de Oro – Abrazos: A community Celebration of Environmental Justice	April 21, 2018	Bernalillo County and AMAFCA cooperated and sponsored a booth that distributed stormwater quality educational information about land use impacts upon stormwater and the river, human activities and their impacts, and actions to reduce stormwater pollution. Attendance included approximately 380 people.
Great American Cleanup	April 7 - May 5, 2018 (4 Fridays)	Bernalillo County organized Great American Cleanup events on 4 Fridays in April and May.
Earth Day Event at Albuquerque High School	April 12, 2018	Provided information about local stormwater quality issues, compliance, monitoring, and careers involved with stormwater. Attendance included approximately 450 people.
Drug Take Back Event	April 28, 2018	Drug Take Back Event, provides a safe, convenient, and responsible way of disposing of unused, unwanted or expired medications.
South Valley Pride Day	April 29, 2018	Bernalillo County had a booth set up and provided education and outreach regarding land use impacts to stormwater and the river, human activities and their impacts to stormwater, and provided activities kids can do to reduce stormwater

Public Education Outreach	Date	Successful Outcome
		pollution. Attendance included approximately 3,000 people.
MESA Outreach	May 10, 2018, May 22, 2018, and June 5, 2018	Bernalillo County worked with 20 MESA students for these outreach events. Bernalillo County discussed with students how their efforts and project could help with water quality and research. Bernalillo County observed presentations by middle and high school students going to national competition and provided feedback on how to make their graphics, presentation, and project more useful and competitive. Bernalillo County worked with students to calibrate their soil moisture measurement device with known values to base measurements in empirical data.
Local news channel KRQE - stormwater quality interview	June 6, 2018	Kali Bronson, Bernalillo County Stormwater Program Compliance Manager appeared on local news channel KRQE for an interview about stormwater quality. The average daily views for this interview are estimated to be approximately 4,920.

4. Construction

Page 4: Item 4I. What are the three 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 were no formal violations during this inspection period. There were four failed inspections between three of the ten active construction 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. Bernalillo County started using training videos provided through Excal Visual, Inc. in FY 2018.

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 2018 = 120
>
> Number of projects reviewed that were greater than 1 acre = 120

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	MS4 Technical Advisory Group (TAG) – various cooperative activities	Intergovernmental Agreement

Entity	Activity/Task/Responsibility	Your Oversight/Accountability Mechanism
UNM 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 and Memorandum of Understanding for Delegation of Authority to AMAFCA for Data Entry into netDMR System
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

Entity	Activity/Task/Responsibility	Your Oversight/Accountability Mechanism
Bernalillo County AMAFCA	GI/LID Impediments Assessment and Report	Shared without cost allocation
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 2018 = 259,000 people
Mailings with water bills, number of residences reached.	2014	Annually	No. of residences reached: FY 2018 = 1 mailing, 207,000 residences
Septic system issues resolved.	2014	Annually	No. of septic issues resolved: FY 2018 = 524 septic system permits issued, 29 septic systems abandoned
Recycling Waste Diversion Program	2013	Annually	Tons of waste recycled: FY 2018 = 6,196.5 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 2018 = 1,693 participants Program Cost for County: FY 2018 = $81,000
Household Hazardous Waste Collection – County only Collection Events	2014	Annually	No. of County participants: FY 2018 = 244 participants No. of County events: FY 2018 = 9 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
- Bosque Environmental Monitoring Program (BEMP) Invoices & Reports for FY 2016 through FY 2018 (available upon request).
- Given the data (2 year, six 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 upon 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_BernCo_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 (two years from effective date of Permit is December 22, 2016) and submittal of progress reports with the third and subsequent Annual Reports.

In FY 2018, Bernalillo County and USGS continued a monitoring program to evaluate PCBs in water and soil samples at four locations with Bernalillo County (Alameda, Paseo, Sanchez Farms, and Adobe Acres). The three objectives of this study are:

1) Characterize PCB concentrations in soil and water samples.
2) Determine/estimate storm-water discharges from the four basins.
3) Use PCB and discharge data to estimate PCB loads for the four basins.

The USGS collects samples for PCB analysis; the samples are summarized in the table below. The USGS has received the results but has not yet analyzed and reported the results to Bernalillo County. The USGS progress reports for this PCB Program are available upon request.

USGS PCB Study – Summary of Samples Obtained

	FY17 Dry Season		FY17 Monsoon		FY18 Dry Season		FY18 Monsoon	
	Water (WS)	Sediment (SB)	Water (WS)	Sediment (SB)	Water (WS)	Sediment (SB)	Water (WS)	Sediment (SB)
Adobe Acres	1		3	1	1	1	2	1
Sanchez Pump Station			1	1	1	1	3	1
Sanchez Inflow			1				1	1
Paseo		1			1	1	2	1
Alameda	1		1		1	1	4	2
QAQC (Blank/ Replicate)			1	1	2	2	1	1
Total	2	1	7	3	6	6	13	7

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 2018 – 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 2018-2020 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 2018.

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 2018, 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 2018. 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 2018 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 779 residences in FY 2018 with the intent of verifying status and education regarding proper operation of the systems. As a result of the FY 2018 campaign, 383 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 2018, three septic systems were abandoned, and two sanitary sewer connections were made; where sanitary sewer was not available, one new septic system was installed. In addition, 29 septic systems were vacated in FY 2018, and residents were required to connect to the sanitary sewer system.

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. Many of the web site text and downloadable brochures are also available in Spanish. 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
https://www.bernco.gov/poopfairy
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 2018 that addressed flooding and hazardous waste collection/education (April 2018). 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 2018, monthly "BernCo at a Glance" newsletters were printed and are also available electronically (bi-weekly starting in January 2018). Throughout the reporting period, July 1, 2017, through June 30, 2018, 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 250,700 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 2018.

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 2018, the cooperative monitoring program established in FY 2016 continued sampling and collected two wet season samples; a total of six of the seven samples required in the MRG MS4 Permit have been obtained.

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. A TMDL for nutrients in this assessment unit of the Tijeras Arroyo was approved by the EPA in October 2017. Bernalillo County, in cooperation with COA and NMDOT, continues to voluntarily participate in the Pre-TMDL Cooperative Nutrient Study for Tijeras Arroyo under the NPDES Permit No. NMR04A000. The results of these studies will be used to guide the overall program plan and goals. Samples were collected during dry weather and wet weather events. For the reporting period for year three of this study, sample results show generally low concentration for nutrient-related constituents of concern, with the exception of a dry weather event in August 2017 and wet weather events in July and August 2017 and June 2018, where concentrations for total nitrogen and phosphorus were elevated. Results from year three of this study were submitted to NMED by December 1, 2018.

In FY 2018, 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 2018, Bernalillo County continued involvement with the Tijeras Creek Watershed Collaborative (TCWC) which meets regularly to discuss the watershed and restorative work for the Tijeras Creek. In 2018, the group completed the "Tijeras Creek Ecological Monitoring Report, 2018." 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 2018, Bernalillo County continued septic system initiative targeting residents within the upper Tijeras Arroyo watershed. Bernalillo County held one Septic System Workshop in FY 2018. The purpose of this workshop 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 2018. The SWMP, submitted with the FY 2016 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 2017.

In FY 2018, 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. Future projects at Valle de Oro National Wildlife Refuge and McEwen Pond area are planned to address water quality concerns. Bernalillo County has teamed with USGS, AMAFCA, US Army Corps of Engineers, US Bureau of Reclamation, USEPA, and US Fish & Wildlife Service on a water quality data collection project: "Ecohydrologic and Water Quality Data Collection at

Valle de Oro National Wildlife Refuge and the Albuquerque South Valley Community Commons." The objectives of this project are to: (1) assess the baseline status of water resources prior to site plan implementation at the Refuge and McEwen Pond; (2) characterize changes in the quantity and quality of water that result from site plan implementation; and (3) provide relevant data to stakeholders.

The County also addressed pollutants that have the potential to affect stormwater quality (including pollutants that affect DO levels) in FY 2018 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 2018 – 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 2018, the County tracked and estimated the volume of sediment removed from each stormwater facility.

Approximately 759 cubic yards (349 tons) of sediment, trash, and vegetation (green waste) was removed from County catch basins, wet wells, storm sewer lines, County ponds, channels, and right-of-way.

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

FY 2018 – 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 2018.

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 = 27 (100 percent of sites)
Number of enforcement activities = 0

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

Cumulative Number of site inspections = 105 (100 percent of sites)
Cumulative Number of enforcement activities = 2

In FY 2018, there were several opportunities to incorporate GI/LID/sustainable practices. These opportunities are based on commercial sites permitted (this includes new

projects, renovation, tenant improvements, road projects, residential and commercial developments, 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 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 2018.

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: https://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. In December 2017, Bernalillo County created a Guidance Document for Stormwater Post-Construction Best Management Practices (BMPs). Post-Construction stormwater management information is available on the County's website at: https://www.bernco.gov/public-works/post-construction-storm-water-management-new-re-development.aspx

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 2018, Bernalillo County completed two projects that included GI/LID retrofits – Alameda Drain Trial Project and Second Street Southwest improvements. In addition, Bridge Blvd, which was in design in FY 2018, includes GI/LID elements. 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, Tower Road SW Roadway and Utility Improvement, Goff Boulevard Improvements, Sunset Gardens Road, and Woodward Road IP, Barcelona Storm Drain Phase 1, intersection of Coors and Blake, among others.

In FY 2018, 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.

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 continued working cooperatively on this Permit activity during FY 2018 by sharing GIS information with other MS4s, as requested. 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 1,693 Bernalillo County residents and 9,894 City of Albuquerque residents participated in the Hazardous Waste Collection Programs. With this cooperative collection program, over 425,000 pounds of waste was collected; 82 percent of the collected waste was able to be recycled and diverted from the landfill. In addition, approximately 244 Bernalillo County residents participated in the nine County led Household Hazardous Waste (HHW) weekend collection events. At these neighborhood collection events, 10,512 pounds of HHW were collected at a cost of $25,133 to Bernalillo County.

Included in this FY 2018 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. 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 and FY 2018, 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 results of these meetings were incorporated into the AMAFCA 2018 Project Schedule – Planned Water Quality Facilities 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. Illicit discharges can also be reported by email to water@bernco.gov and through a web based form available at https://www.bernco.gov/public-works/report-water-waste.aspx. 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 2018, 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, installed a rainfall gauge in the South Valley in FY 2018 and plans to install an additional rainfall gauge in the Upper Tijeras Watershed in the future 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 2018, the County tracked and estimated the volume of floatables and trash removed from each stormwater control facility.

Approximately 759 cubic yards (CY) of trash, debris, and vegetation was removed from County catch basins, wet wells, storm sewer lines, County ponds, channels, and right-of-way.

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%
569 CY	244 CY	219 CY	94 CY	9 CY	3 CY

* The percentages used do not include the sediment amounts found in the Gross Pollutant Study; therefore, the volume of sediment removed is not included in this analysis.

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

FY 2018 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, 2017, through June 20, 2018, 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 259,000 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 continued 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 2018, Bernalillo County and AMAFCA worked cooperatively to create BMP brochures for specific industries (Contractors, Food Preparation or Service, Parking Lots and Drive Through Lanes, Fueling Stations, Vehicle and Equipment Repair, and Landscaping). These brochures were created in English and Spanish. Examples of these educational and outreach brochures are available upon request.

In FY 2018, 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 2018, 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 2018, 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.

Bernalillo County has started using training videos through Excal Visual, Inc. for Pollution Prevention/Good Housekeeping and Illicit Discharge and Detection Trainings. These trainings are required for new employees and annually for existing employees. In FY 2018, 115 employees received this training.

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.

Bernalillo County and AMAFCA worked cooperatively in FY 2018 to implement the Public Involvement and Participation Plan developed in FY 2017. The written Public Involvement and Participation 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 2019. The Plan is meant to be a living document and will be updated and evaluated as the program progresses. In FY 2018, a major focus of public education, outreach, participation and involvement was planning for the EPA Region 6 Stormwater Conference in Albuquerque. Planning began in October 2017 and continued through to the conference in August 2018. Activities in FY 2018 also focused on developing sector-specific outreach materials for business activities that have the potential to impact stormwater. The outreach brochures were produced in Spanish and English.

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, Rocky Mountain 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 8, 2017, WPAB board meeting, the County gave update presentations regarding the MS4 Permit.

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

During this FY 2018 Annual Report reporting period, sampling continued with 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 two (2) samples in FY 2018; bringing the total collected samples to six (6) 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 2018

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
Stormater Program Compliance Manager, Bernalillo County

Jerry Lovato, P.E.
Executive Director, AMAFCA

COMMISSIONERS

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

ELECTED OFFICIALS

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

COUNTY MANAGER
Julie Morgas Baca

DMR Copy of Record

Permit

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

Report Dates & Status

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

Considerations for Form Completion

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

Principal Executive Officer

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

No Data Indicator (NODI)

Form NODI: --

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

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

Submission Note

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

Edit Check Errors

No errors.

Comments

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

Attachments

No attachments.

Report Last Saved By

ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY (AMAFCA)

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

Report Last Signed By

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

Date/Time: 2018-10-05 13:59 (Time Zone: -05:00)

DMR Copy of Record

Permit

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

Report Dates & Status

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

Considerations for Form Completion

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

Principal Executive Officer

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

No Data Indicator (NODI)

Form NODI: --

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

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

Submission Note

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

Edit Check Errors

No errors.

Comments

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

Attachments

No attachments.

Report Last Saved By

ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY (AMAFCA)

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

Report Last Signed By

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

Date/Time: 2018-10-05 13:59 (Time Zone: -05:00)

DMR Copy of Record

Permit

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

Report Dates & Status

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

Considerations for Form Completion

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

Principal Executive Officer

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

No Data Indicator (NODI)

Form NODI: --

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

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

Submission Note

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

Edit Check Errors

No errors.

Comments

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

Attachments

No attachments.

Report Last Saved By

ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY (AMAFCA)

User:	SGANLEYBHI
Name:	Sarah Ganley
E-Mail:	sganley@bhinc.com
Date/Time:	2018-03-29 10:02 (Time Zone: -05:00)

Report Last Signed By

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

Date/Time: 2018-10-05 13:59 (Time Zone: -05:00)

DMR Copy of Record

Permit

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

Report Dates & Status

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

Considerations for Form Completion

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

Principal Executive Officer

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

No Data Indicator (NODI)

Form NODI: --

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration							# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
00010	Temperature, water deg. centigrade	1 - Effluent Gross	0	--	Sample						=	15.2	=	15.2	=	15.2	04 - deg C		03/PT - Three Per Permit Term	GR - GRAB
					Permit Req.							Req Mon DAILY MN		Req Mon DAILY AV		Req Mon DAILY MX	04 - deg C		03/PT - Three Per Permit Term	GR - GRAB
					Value NODI															
00094	Conductivity	1 - Effluent Gross	0	--	Sample								=	192.2	=	192.2	11 - umho/cm		03/PT - Three Per Permit Term	GR - GRAB
					Permit Req.									Req Mon DAILY AV		Req Mon DAILY MX	11 - umho/cm		03/PT - Three Per Permit Term	GR - GRAB
					Value NODI															
00300	Oxygen, dissolved [DO]	1 - Effluent Gross	0	--	Sample						=	7.23	=	7.23			19 - mg/L		03/PT - Three Per Permit Term	GR - GRAB
					Permit Req.							Req Mon DAILY MN		Req Mon DAILY AV			19 - mg/L		03/PT - Three Per Permit Term	GR - GRAB
					Value NODI															
00310	BOD, 5-day, 20 deg. C	1 - Effluent Gross	0	--	Sample								=	5	=	5	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.									Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
00340	Oxygen demand, chem. [high level] [COD]	1 - Effluent Gross	0	--	Sample								=	36.2	=	36.2	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.									Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
00400	pH	1 - Effluent Gross	0	--	Sample						=	7.92			=	7.92	12 - SU		03/PT - Three Per Permit Term	GR - GRAB
					Permit Req.							Req Mon MINIMUM				Req Mon MAXIMUM	12 - SU		03/PT - Three Per Permit Term	GR - GRAB
					Value NODI															
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample								=	810	=	810	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.									Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
00556	Oil & Grease	1 - Effluent Gross	0	--	Sample															
					Permit Req.									Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI									B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
00625	Nitrogen, Kjeldahl, total [as N]	1 - Effluent Gross	0	--	Sample								=	1.7	=	1.7	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.									Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
00630	Nitrite + Nitrate total [as N]	1 - Effluent Gross	0	--	Sample								=	0.46	=	0.46	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.									Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
00665	Phosphorus, total [as P]	1 - Effluent Gross	0	--	Sample								=	0.74	=	0.74	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.									Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
00666	Phosphorus, dissolved	1 - Effluent Gross	0	--	Sample								=	0.08	=	0.08	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.									Req Mon DAILY AV		Req Mon DAILY MX	19 - mg/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
01032	Chromium, hexavalent [as Cr]	1 - Effluent Gross	0	--	Sample															
					Permit Req.									Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI									B - Below Detection Limit/No Detection		B - Below Detection Limit/No Detection				
01040	Copper, dissolved [as Cu]	1 - Effluent Gross	0	--	Sample								=	0.98	=	0.98	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.									Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
01049	Lead, dissolved [as Pb]	1 - Effluent Gross	0	--	Sample								=	0.47	=	0.47	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
					Permit Req.									Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS
					Value NODI															
34230	Benzo[b]fluoranthene	1 - Effluent Gross	0	--	Sample															
					Permit Req.									Req Mon DAILY AV		Req Mon DAILY MX	28 - ug/L		03/PT - Three Per Permit Term	CP - COMPOS

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

Submission Note

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

Edit Check Errors

No errors.

Comments

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

Attachments

No attachments.

Report Last Saved By

ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY (AMAFCA)

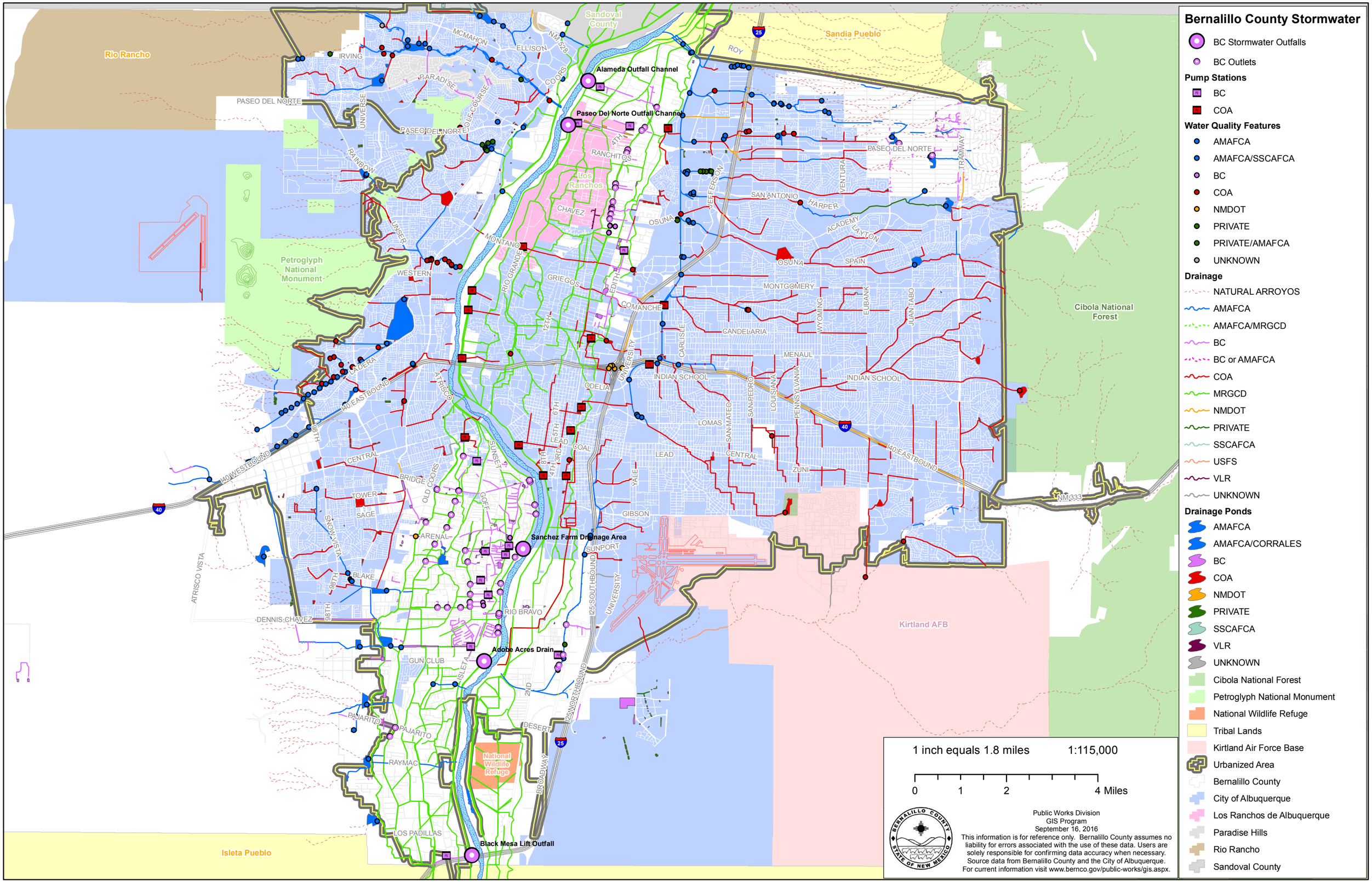
User:	SGANLEYBHI
Name:	Sarah Ganley
E-Mail:	sganley@bhinc.com
Date/Time:	2018-03-29 12:05 (Time Zone: -05:00)

Report Last Signed By

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

Date/Time: 2018-10-05 13:59 (Time Zone: -05:00)

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
0
1
2
4 Miles
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.
Rio Rancho
Sandoval County
Sandia Pueblo
Petroglyph National Monument
Cibola National Forest
Kirtland AFB
Isleta Pueblo
Los Ranchos
Alameda Outfall Channel
Paseo Del Norte Outfall Channel
Sanchez Farm Drainage Area
Adobe Acres Drain
Black Mesa Lift Outfall
National Wildlife Refuge
PASEO DEL NORTE
MONTANO
I-25
I-40
NM 528
NM 333
RIO GRANDE
RIO BRAVO
I-25 SOUTHBOUND
I-25 NORTHBOUND
I-40 EASTBOUND
I-40 WESTBOUND
UNIVERSITY
COMANCHE
INDIAN SCHOOL
CENTRAL
LOMAS
LEAD
COAL
GIBSON
SUNPORT
DESERT
BROADWAY
ISLETA
2ND
GUN CLUB
DENNIS CHAVEZ
ATRISCO VISTA
98TH
SNOW VISTA
BLAKE
ARENAL
SAGE
TOWER
BRIDGE
OLD COORS
GOFF
SUNSET
LOS PADILLAS
RAYMAC
PAJARITO
CHAVEZ
GRIEGOS
RANCHITOS
OSUNA
SAN ANTONIO
HARPER
ACADEMY
LAYTON
SPAIN
MONTGOMERY
CANDELARIA
MENAUL
ZUNI
YALE
ODELIA
ATRISCO
MADERA
WESTERN
UNSER
RAINBOW
UNIVERSE
PARADISE
GOLF COURSE
IRVING
MCMAHON
ELLISON
COORS
ROY
JEFFERSON
VENTURA
TRAMWAY
WYOMING
EUBANK
JUAN TABO
CARLISLE
SAN PEDRO
LOUISIANA
PENNSYLVANIA
SAN MATEO
EDITH
4TH
6TH
8TH
2ND
1ST
3RD
5TH
7TH

Attachment 3
AMAFCA 2018 Project Schedule

AMAFCA

2018 PROJECT SCHEDULE

Albuquerque Metropolitan Arroyo Flood Control Authority

Protecting Life and Property Since 1963

Sunset at the NDC Outfall

AMAFCA 2018 Project Schedule

Board of Directors

Bruce M. Thomson, Chair
Cynthia D. Borrego, Vice Chair
Ronald D. Brown, Secretary-Treasurer
Deborah L. Stover, Assistant Secretary-Treasurer
Tim Eichenberg, Director

Executive Engineer

Jerry M. Lovato, P.E.

Albuquerque Metropolitan Arroyo Flood Control Authority

2600 Prospect Avenue NE
Albuquerque, NM 87107
Voice: 505-884-2215
Fax: 505-884-0214

Oblique Aerial Photography by Eagle's Eye Photo Imaging:
www.eagleseyephoto.com ©2017

Calabacillas Arroyo

Amole Dam

Preface

Message from the Chair

"Today, more than 650,000 people live and work in the Albuquerque urban area. AMAFCA will continue to invest in flood control so future generations will have the maximum level of protection from the effects of flooding through fiscally responsible flood control actions and multi-use facilities that complement and enhance the beauty of our City."

Bruce M. Thomson
Chair, AMAFCA Board of Directors

Acknowledgments

This project schedule was developed with the assistance of the City of Albuquerque, Bernalillo County, New Mexico Department of Transportation, University of New Mexico, Middle Rio Grande Conservancy District, U.S. Army Corps of Engineers, Pueblo of Sandia, and the Village of Los Ranchos de Albuquerque.

AMAFCA Project Schedule Team

Bradley L. Bingham, P.E.
Drainage Engineer, Project Manager

Kevin Troutman
GIS Manager, Orthophoto Graphics and Ground Photography

Jared Romero, Engineer Intern, Document Coordination

Nolan Bennett, P.E.
Field Engineer

Lynn Mazur, P.E.
Development Review Engineer

Patrick Chavez, P.E.
Storm Water Quality Engineer

Jeffrey Willis
Real Estate Manager

South Diversion Channel Outfall

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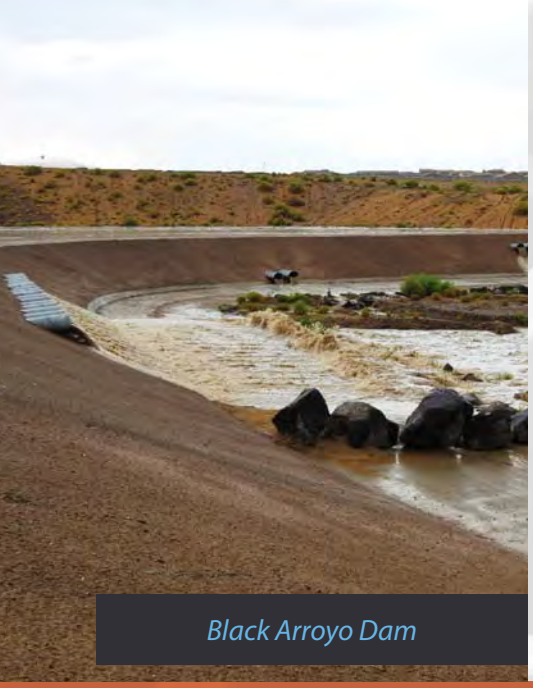

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SPREADSHEET AGENCY LEGEND	
Agency Name	Abbreviation
Albuquerque Metropolitan Arroyo Flood Control Authority	AMAFCA
Albuquerque Public Schools	APS
Bernalillo County	BernCo
Central New Mexico Community College	CNM
City of Albuquerque	CoA
Environmental Protection Agency	EPA
Federal Emergency Management Agency	FEMA
Fish and Wildlife Service	FWS
Kirtland Air Force Base	KAFB
Middle Rio Grande Conservancy District	MRGCD
National Park Service	NPS
New Mexico Office of the State Engineer	OSE
New Mexico Department of Transportation	NMDOT
Southern Sandoval County Arroyo Flood Control Authority	SSCAFCA
U.S. Army Corps of Engineers	COE
University of New Mexico	UNM
Village of Los Ranchos	VLR

Amole del Norte Channel

Introduction

The Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) was created in 1963 by the New Mexico State Legislature to protect life and property through construction and maintenance of major flood control and stormwater quality facilities in the greater Albuquerque metropolitan area. AMAFCA's jurisdiction includes most of the developed area of Bernalillo County, with the exception of the East Mountain area and the Rio Puerco basin. AMAFCA is governed by a five-member Board of Directors, elected to six-year terms. The five AMAFCA Districts are shown on page 16.

AMAFCA has invested approximately $260,000,000 in infrastructure that includes 21 flood control dams, 50 smaller flood-control ponds, 77 miles of arroyo channels, 11 miles of underground conduit structures, and 10 miles of dikes and diversion structures. AMAFCA stormwater quality and debris-removal facilities annually collect an average of 50,000 cubic yards of sediment and 2,500 cubic yards of trash from stormwater before the runoff enters the Rio Grande. In addition to building infrastructure, outreach and education is also an important part of AMAFCA's mission to protect life, property and the environment. AMAFCA is an active member of the Ditch and Water Safety Task Force, the Levee Task Force, the Compliance Monitoring Cooperative, and the Stormwater Quality Team.

La Cueva Intake

SDC Water Quality Structure

Raven Pond

Black Arroyo Dam

AMAFCA owns or has easements on 4,000 acres of property used for flood control, much of which is made available for joint uses such as bike trails, recreational fields, equestrian areas, hang glider and hot-air balloon landing areas, open space, wildlife habitat, and golf courses.

Project Schedule Process

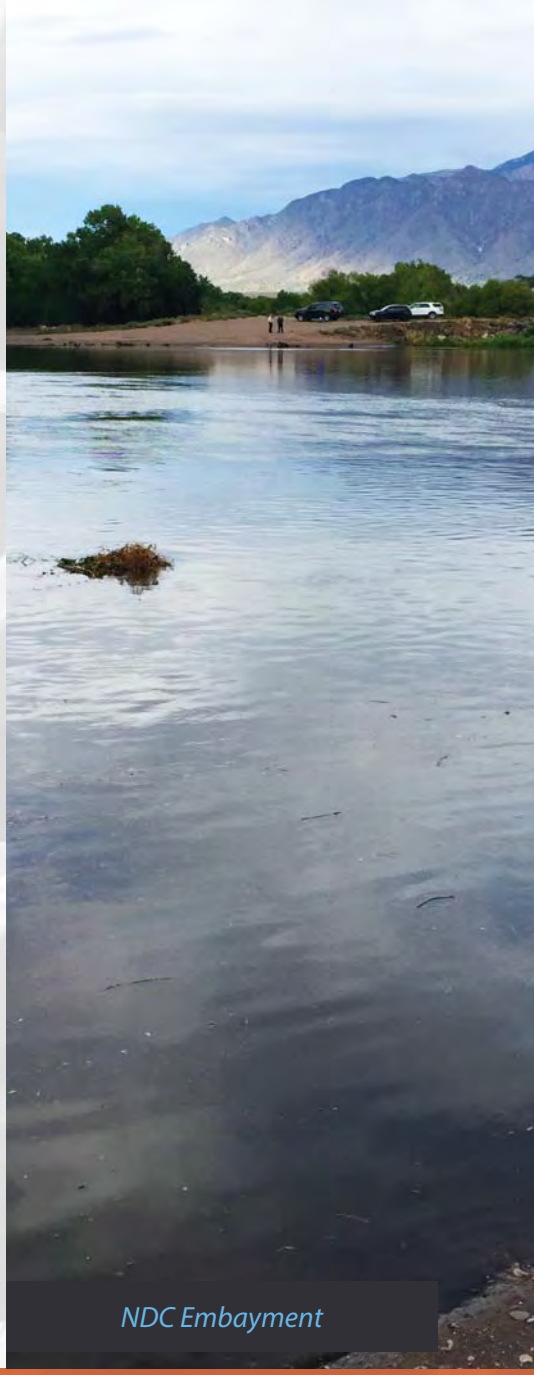
The Project Schedule identifies future planning efforts, joint funding initiatives, design and construction projects that AMAFCA hopes to accomplish over the next six years. The projects selected for the 2018 Project Schedule were derived from an extensive review and analysis of more than 338 different planned flood control and water quality projects within AMAFCA's jurisdiction. Each project was evaluated by assessing current and future needs and regulatory priorities. Stormwater quality projects were prioritized, as required by the MS4 permit, based on cost, existing BMPs within the subbasin (effectiveness), and proximity to the Rio Grande. The project list was developed with input from other local agencies and coordinated with projects contemplated by the City of Albuquerque, Bernalillo County, the U.S. Corps of Engineers, NMDOT, SSCAFCA, MRGCD and the Village of Los Ranchos de Albuquerque. AMAFCA uses a detailed and comprehensive process to compile drainage projects into a GIS database, estimate their costs, and prioritize their implementation. AMAFCA assembled a technical team of AMAFCA staff and our Agency partners to review and evaluate each project for system effectiveness, funding availability and timing. Recommendations were presented to the AMAFCA Board of Directors over a series of public meetings held in the spring and summer of 2017; more than $725,000,000 in proposed projects were vetted.

Isleta Drain Diversion Structure

Executive Summary

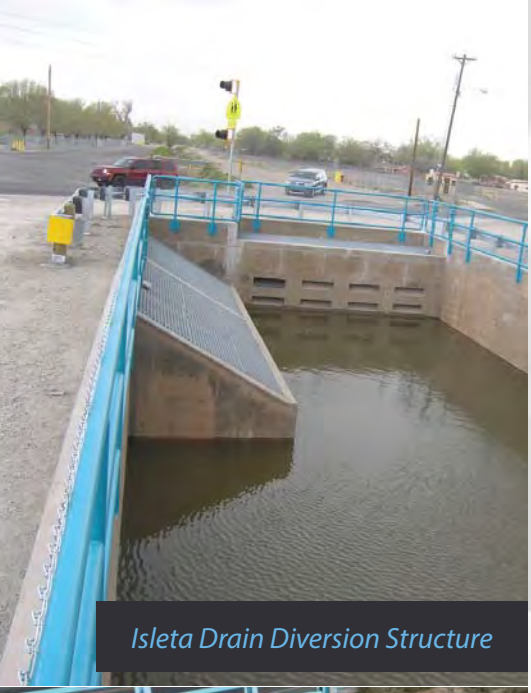
The 2018 Project Schedule covers a six-year planning horizon, from 2018 through 2023, and identifies more than $100,000,000 in potential AMAFCA funding for flood control, drainage management and stormwater quality projects within AMAFCA's jurisdiction. Project funding will be leveraged with other public and private funds to maximize the value to the community. The 2018 Project Schedule includes construction of the Louisiana-Gibson Regional Drainage Facility at Kirtland Air Force Base, the Calabacillas Grade Control Structure 1A1, Montano Levee, and Hamilton Dam. A continuation of master-planning efforts, such as the Upper Calabacillas Facility Plan, North Valley Drainage Management Plan, North Camino Arroyo Drainage Management Plan, and the Karsten Area Restudy, are included in this year's project schedule. The 2018 Project Schedule programs the final projects associated with the completion of the Corps of Engineer's Southwest Valley Flood Reduction Project. Construction of this partially federally funded drainage system will continue in 2018 and 2019 with improvements to the Isleta and Los Padillas Drains and the installation of a gravity outlet from the Amole Dam into the Isleta Drain. When completed, a major trunk drainage system will be available to connect a network of local storm drains throughout the South Valley, allowing the removal of numerous floodplains.

Although the Albuquerque metropolitan area receives less than 9 inches of rain per year, the resulting runoff carries large amounts of sediment, trash and debris with it. AMAFCA contin-

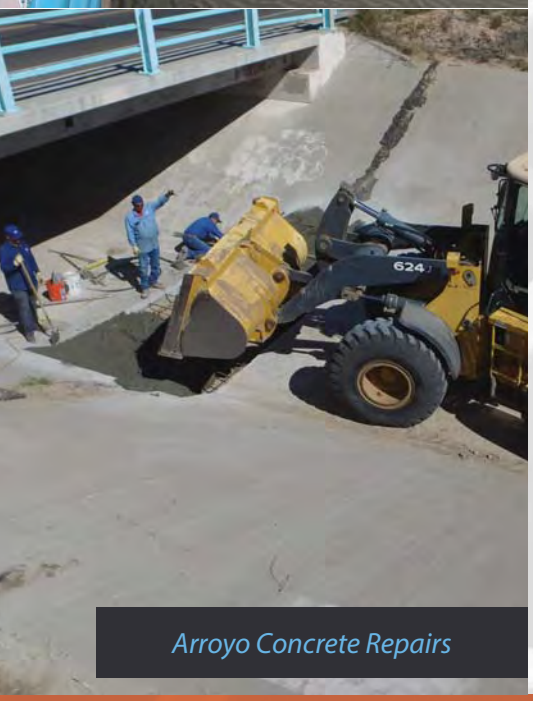


NDC Embayment

NDC Outfall to Rio Grande



Isleta Drain Diversion Structure



Arroyo Concrete Repairs

ues to be the standard-bearer with the installation of facilities that enhance the quality of stormwater runoff prior to entering the Rio Grande. Retrofits to existing facilities identified in the Project Schedule include Las Ventanas Dam, Alcalde and Barelas Pump Station Outlets, Bear Arroyo Tributaries, South Diversion Channel Outlet, Tijeras Arroyo and other AMAFCA facilities.

This schedule is dependent on voter approval of $25,000,000 Bond Authorizations at the general elections to be held in 2018, 2020, and 2022.

The AMAFCA funding in this project schedule can be categorized as follows:

Potential AMAFCA Funding

Drainage Deficiencies in existing neighborhoods	25%	$25.1 M
Rehab of Existing Flood Control Facilities	18%	$18.2 M
Master Planned Drainage Facilities	34%	$33.8 M
Storm Water Quality Projects (retrofits and new projects)	23%	$23.2 M

AMAFCA-managed projects (lead) account for more than three-quarters of the projects listed. The Project Schedule includes projects to be managed by other agencies with AMAFCA funding:

Lead and Contracting Agency

AMAFCA	87%	$90.6M
City of Albuquerque	8%	$ 8.0 M
Bernalillo County	5%	$ 4.9 M

Monsoon flows in Calabacillas

Bond Elections

AMAFCA issues general obligation bonds (paid for by property taxes) for the purpose of extending, altering, reconstructing, repairing and otherwise improving AMAFCA's flood control system. AMAFCA's bond elections currently request $25,000,000 authorizations. The bond elections are held every two years, with the next two scheduled for November 2018 and 2020. All bond elections have passed since the inception of AMAFCA in 1963 with an average pass rate of two to one. It is AMAFCA's intention to maintain a stable mill levy to meet the debt service requirements. AMAFCA has held its debt service mill levy of 0.675 steady since 1999. AMAFCA utilizes a 10 year maturity for bonds and currently does not intend on extending it for future issuances. AMAFCA currently has a legal debt limit of $80,000,000. Using current bond amortization schedules and projected schedules for future debt, we do not anticipate exceeding $70,000,000 of debt.

The corresponding charts below show AMAFCA's mill levy history for the last ten years for residential, non-residential and total tax rates as well as the history of total assessed valuation and growth/(decline) from the previous year.

Bear Arroyo

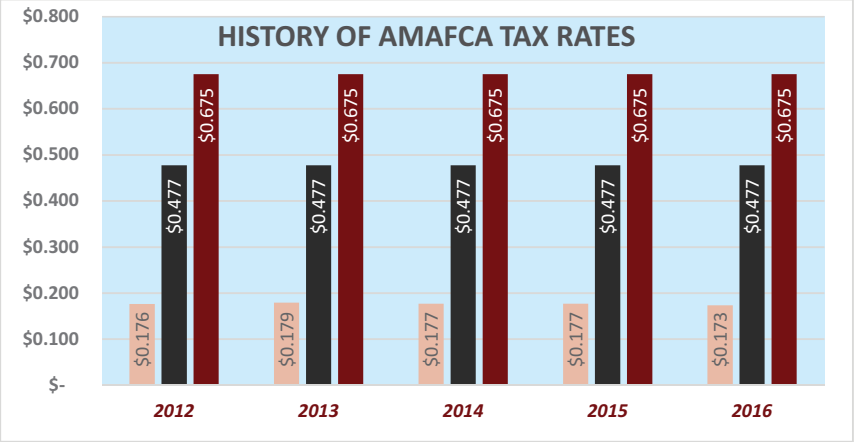
Tijeras Arroyo

Piedras Marcadas Water Quality

Railrunner over NDC

HISTORY OF AMAFCA TAX RATES					
Tax	Operational Tax Rates		Debt	Total Tax Rates	
Year	*Residential*	*Non-Residential*	Service	*Residential*	*Non-Residential*
2007	0.167	0.438	0.675	0.842	1.113
2008	0.165	0.464	0.675	0.840	1.139
2009	0.165	0.488	0.675	0.840	1.163
2010	0.165	0.477	0.675	0.840	1.152
2011	0.170	0.477	0.675	0.845	1.152
2012	0.176	0.477	0.675	0.851	1.152
2013	0.179	0.477	0.675	0.854	1.152
2014	0.177	0.477	0.675	0.852	1.152
2015	0.177	0.477	0.675	0.852	1.152
2016	0.173	0.477	0.675	0.848	1.152

-Operational mill levy is capped at 0.5 mills by legislation
-No cap on debt service mill levy

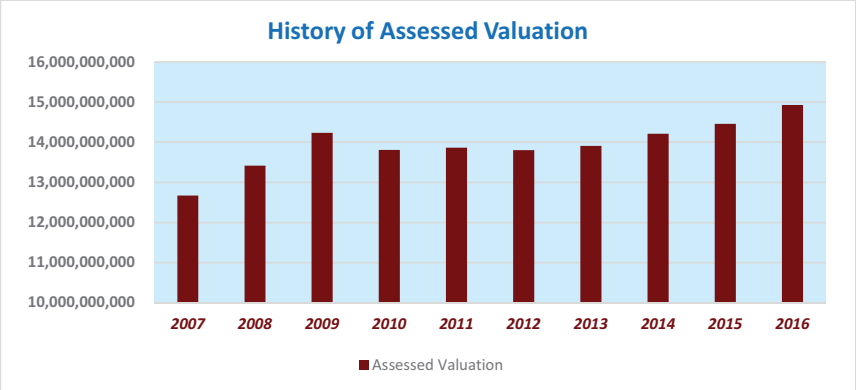


AMAFCA Tax Rates for the last 10 years (top) and 5 years (graphed above).

HISTORICAL ASSESSED VALUATIONS		
Tax Year	Assessed Valuation	% Change From Previous Year
2007	12,672,275,357	30.9%
2008	13,413,034,629	5.8%
2009	14,233,345,747	6.1%
2010	13,804,761,655	-3.0%
2011	13,861,735,225	0.4%
2012	13,798,575,503	-0.5%
2013	13,905,653,445	0.8%
2014	14,208,679,327	2.2%
2015	14,457,994,384	1.8%
2016	14,923,448,814	3.2%

Valuations are determined by the Bernalillo County Assessor's Office.

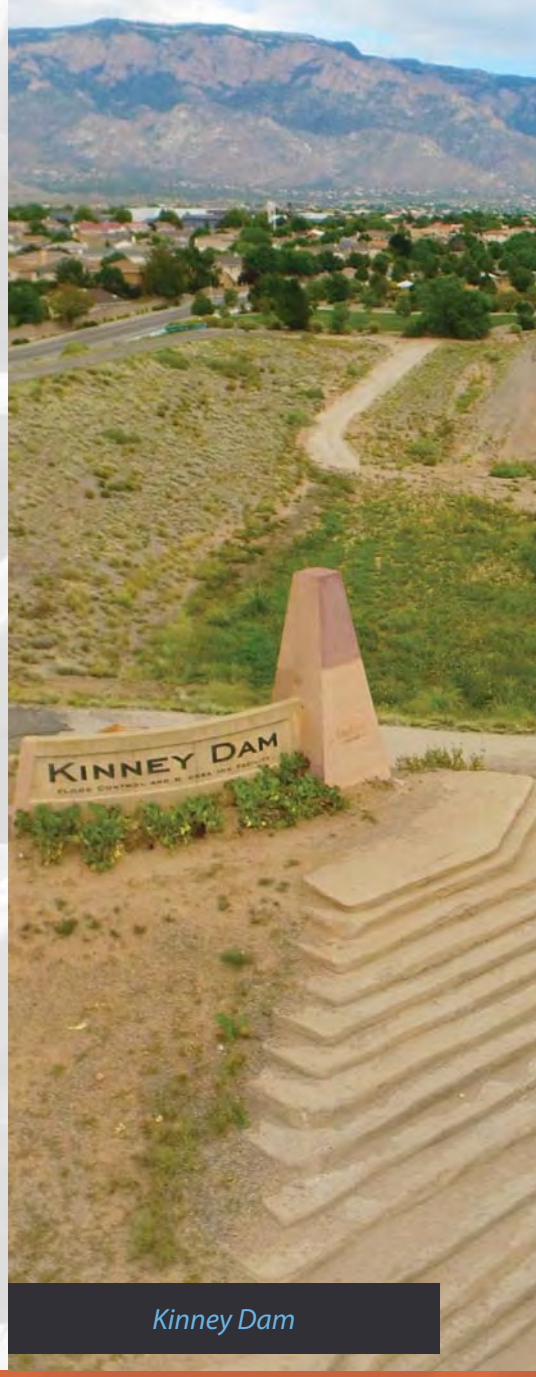
Hahn Arroyo Water Quality



Assessed valuations from 2007 to current assessed year.

All projects in this schedule will be designed and built using private sector services including appraisers, surveyors, consulting engineers, and construction contractors.

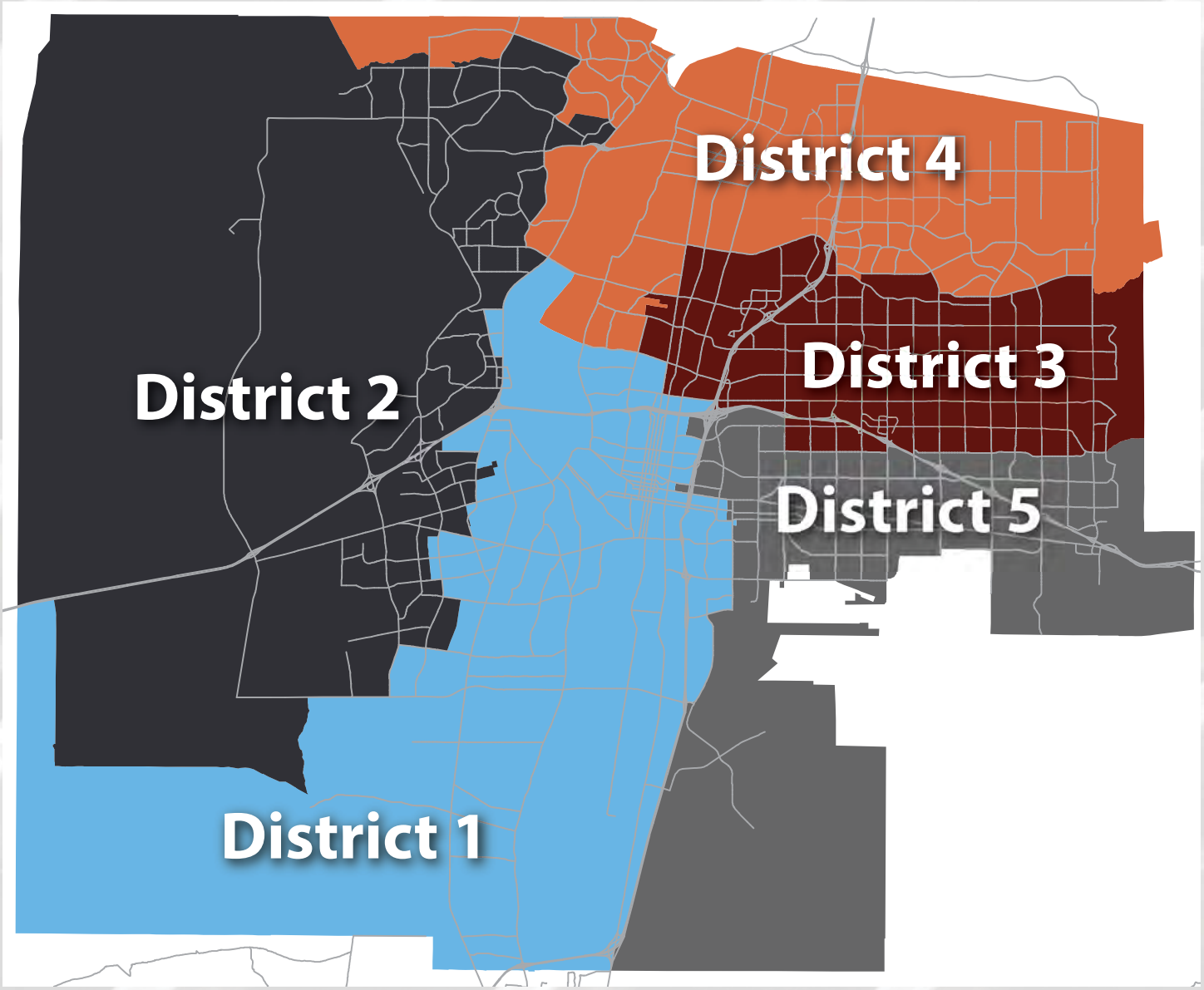
This is strictly a planning and budgeting document for use by the AMAFCA Board of Directors. This Project Schedule utilized various criteria to establish general project priorities from a technical perspective, which may not necessarily reflect the priorities used by the Board of Directors for funding and construction of individual projects. Specific projects will be funded and scheduled by AMAFCA Board action based on evaluation of public safety needs, cost-sharing benefits, and orderly development of flood control infrastructure which addresses overall community needs and regional planning requirements.



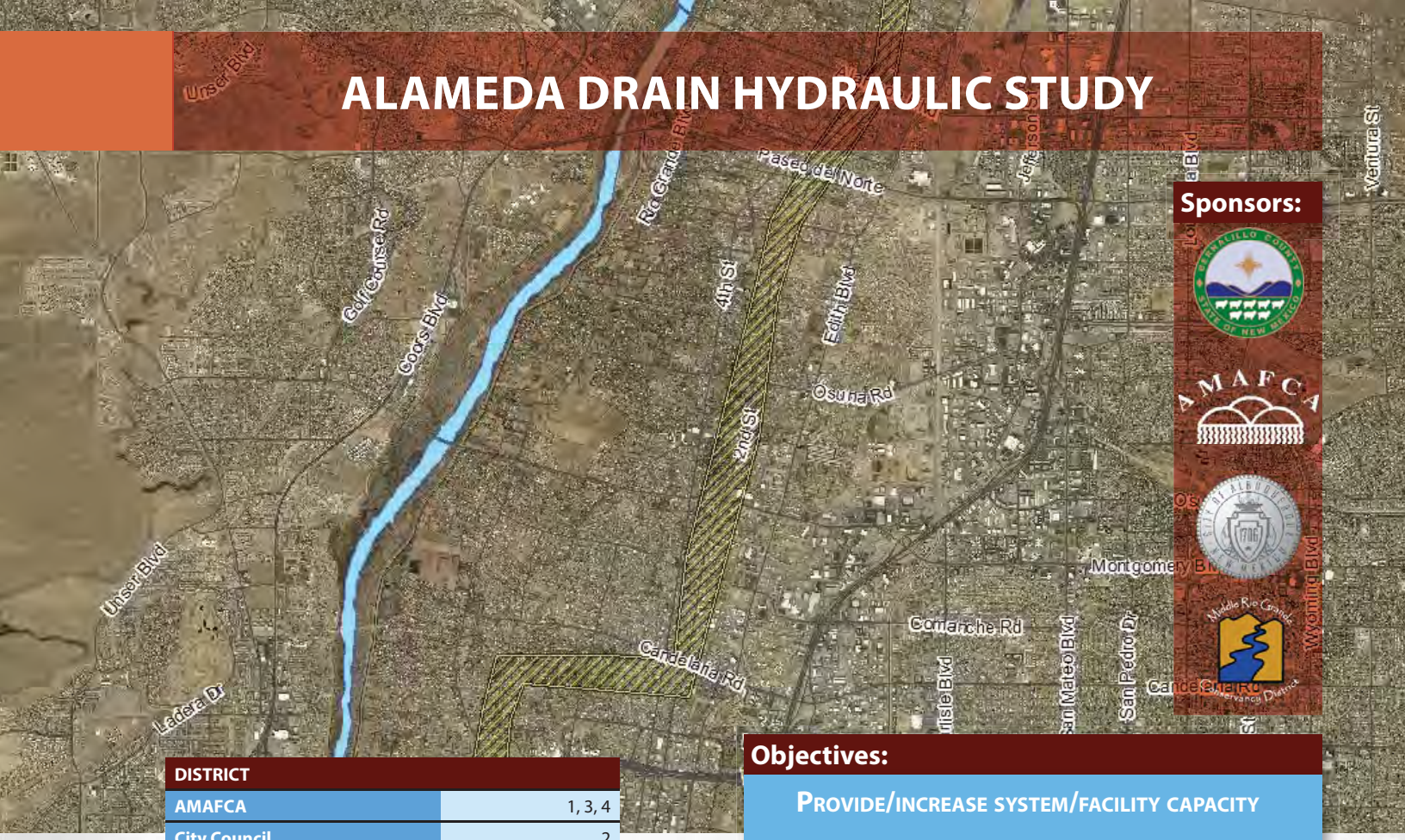
Kinney Dam

AMAFCA Board of Directors and their Districts: 2017

Deborah L. Stover	District 1
Cynthia D. Borrego	District 2
Tim Eichenberg	District 3
Ronald D. Brown	District 4
Bruce M. Thomson	District 5



ALAMEDA DRAIN HYDRAULIC STUDY



Sponsors:

DISTRICT	
AMAFCA	1, 3, 4
City Council	2
County Commission	1, 2, 4
NM Senate	10, 12, 13
NM House	11, 15, 17

Potential AMAFCA Funding: $50,000

2018	2019	2020	2021	2022	2023
$50,000					

Stakeholders:

BernCo, AMAFCA, CoA, MRGCD

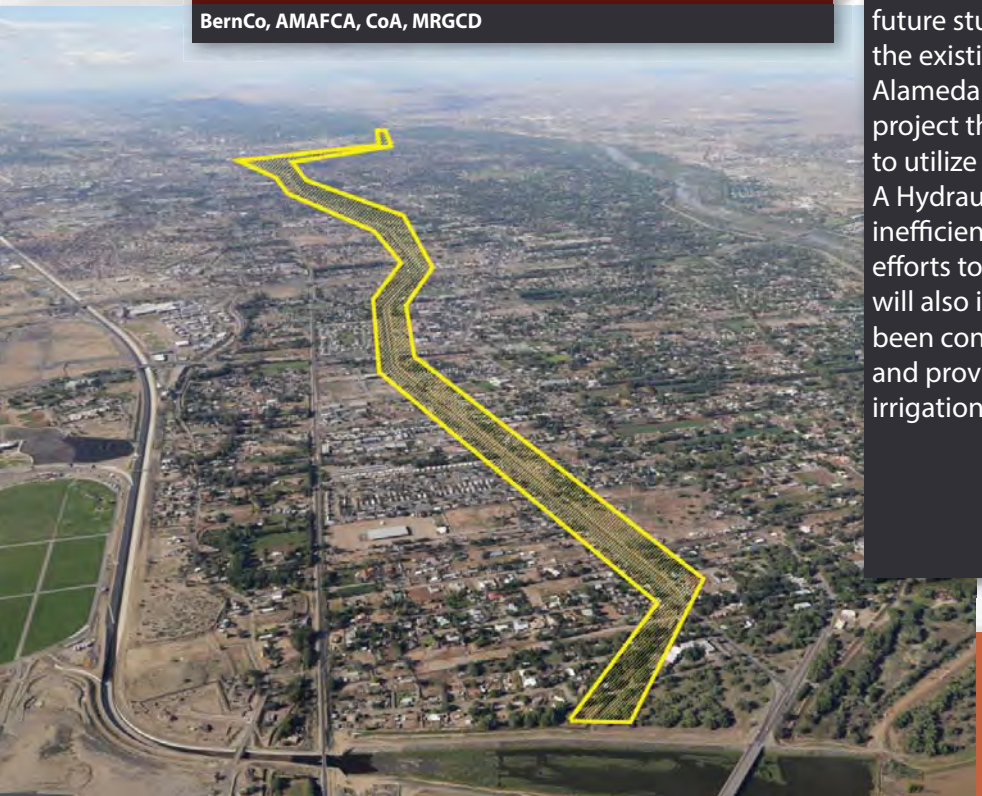
Objectives:

PROVIDE/INCREASE SYSTEM/FACILITY CAPACITY

Total Cost: $400,000

Description:

The Restudy of the Drainage Management Plan (DMP) for the Alameda Drain will identify hydraulic deficiencies of the Alameda Drain in order to focus future studies and design efforts toward optimizing the existing drainage system. This restudy of the Alameda Drain is the first phase of a multi-phase project that will provide the technical data needed to utilize the Drain to the maximum practical extent. A Hydraulic Study will identify locations where inefficiencies or "choke points" are and allow future efforts to be focused on those locations. This update will also identify new drainage facilities that have been constructed since the DMP was first completed and provide a good inventory of all storm drain and irrigation connections.



AMAFCA TELEMETRY

Sponsors:

AMAFCA

Objectives:

- Provide early hazard warning
- Provide/enhance facility maintenance
- Provide/enhance stormwater quality

Total Cost: $1,200,000

DISTRICT	
AMAFCA	1-5
City Council	1-9
County Commission	1-5
NM Senate	9-21, 23, 26, 29
NM House	10-31, 68, 69

Potential AMAFCA Funding: $1,200,000

2018	2019	2020	2021	2022	2023
	$400,000		$400,000		$400,000

Description:

The flood control system telemetry project will provide automated data reporting for AMAFCA facilities. The installation of automated telemetry for AMAFCA facilities will be especially beneficial in the event of inclement weather as it will enhance AMAFCA's ability to observe flood control system conditions remotely, allowing for focused observation by AMAFCA staff concerning the amount and quality of water moving through the system. The telemetry project will report details about the depth of water at the location, possible environmental reporting such as rainfall rate, select water quality parameters, and may include video reporting.

Stakeholders:

AMAFCA, EPA, CoA, MS4 Partners, BernCo, Emergency Responders

AMOLE ARROYO MODIFICATION

Sponsors:

AMAFCA

DISTRICT	
AMAFCA	1
City Council	N/A
County Commission	2
NM Senate	14
NM House	12

Potential AMAFCA Funding: $950,000

2018	2019	2020	2021	2022	2023
$450,000	$500,000				

Stakeholders:

AMAFCA, OSE

Objectives:

- Provide/increase system/facility capacity
- Reduce drainage/flooding issues

Total Cost: $950,000

Description:

A redirection of the Amole Arroyo directly into the Hubbell Channel instead of the Amole Dam will assist in the potential lack-of-capacity issues in Amole Dam. This redirection will allow for greater overall system capacity between the Amole and Hubbell Dams.

AMOLE DAM EMERGENCY ACTION PLAN

Sponsors:

AMAFCA

Objectives:

PROVIDE EMERGENCY PLANNING AND MAPPING

Total Cost: $50,000

DISTRICT	
AMAFCA	1
City Council	N/A
County Commission	2
NM Senate	14
NM House	12

Potential AMAFCA Funding: $50,000

2018	2019	2020	2021	2022	2023
$50,000					

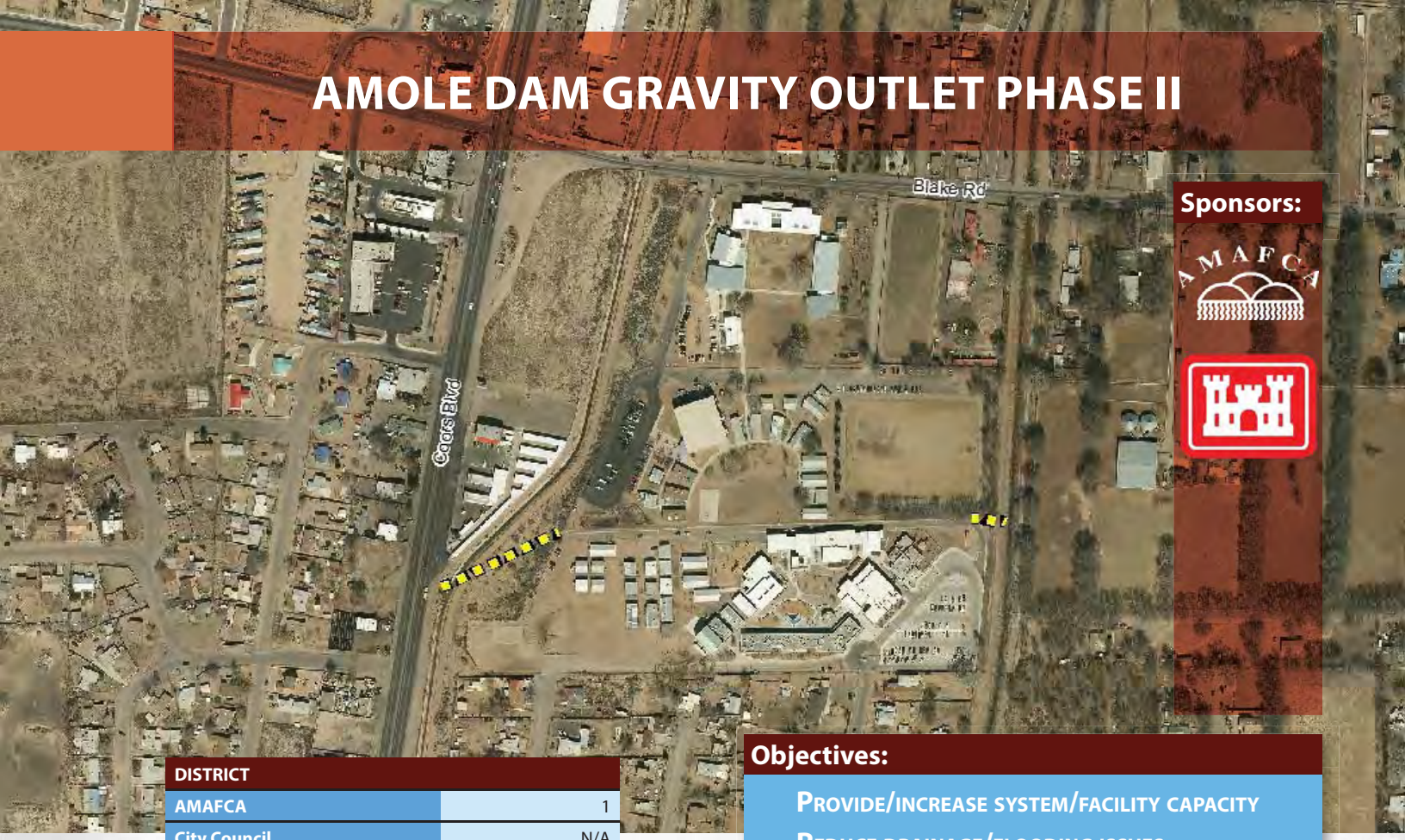
Description:

An Emergency Action Plan (EAP) is a formal plan required by the Office of the State Engineer Bureau of Dam Safety that identifies potential emergency conditions at a dam and outlines the procedures to follow to minimize property damage and loss of life. This project will include the development and preparation of an EAP and inundation maps for the Amole Dam. The EAP will contain procedures to be followed during an emergency, such as structural problems, equipment malfunctions, or natural events such as floods or earthquakes, that could approach or exceed the dam design limits. Inundation mapping will outline the evacuation boundaries for the community on a map in the event of a dam failure.

Stakeholders:

Emergency Responders, OSE, AMAFCA

AMOLE DAM GRAVITY OUTLET PHASE II



Sponsors:

DISTRICT	
AMAFCA	1
City Council	N/A
County Commission	2
NM Senate	14
NM House	12

Potential AMAFCA Funding: $671,000

2018	2019	2020	2021	2022	2023
$150,000	$521,000				

Stakeholders:

AMAFCA, MRGCD, COE, APS, BernCo

Objectives:

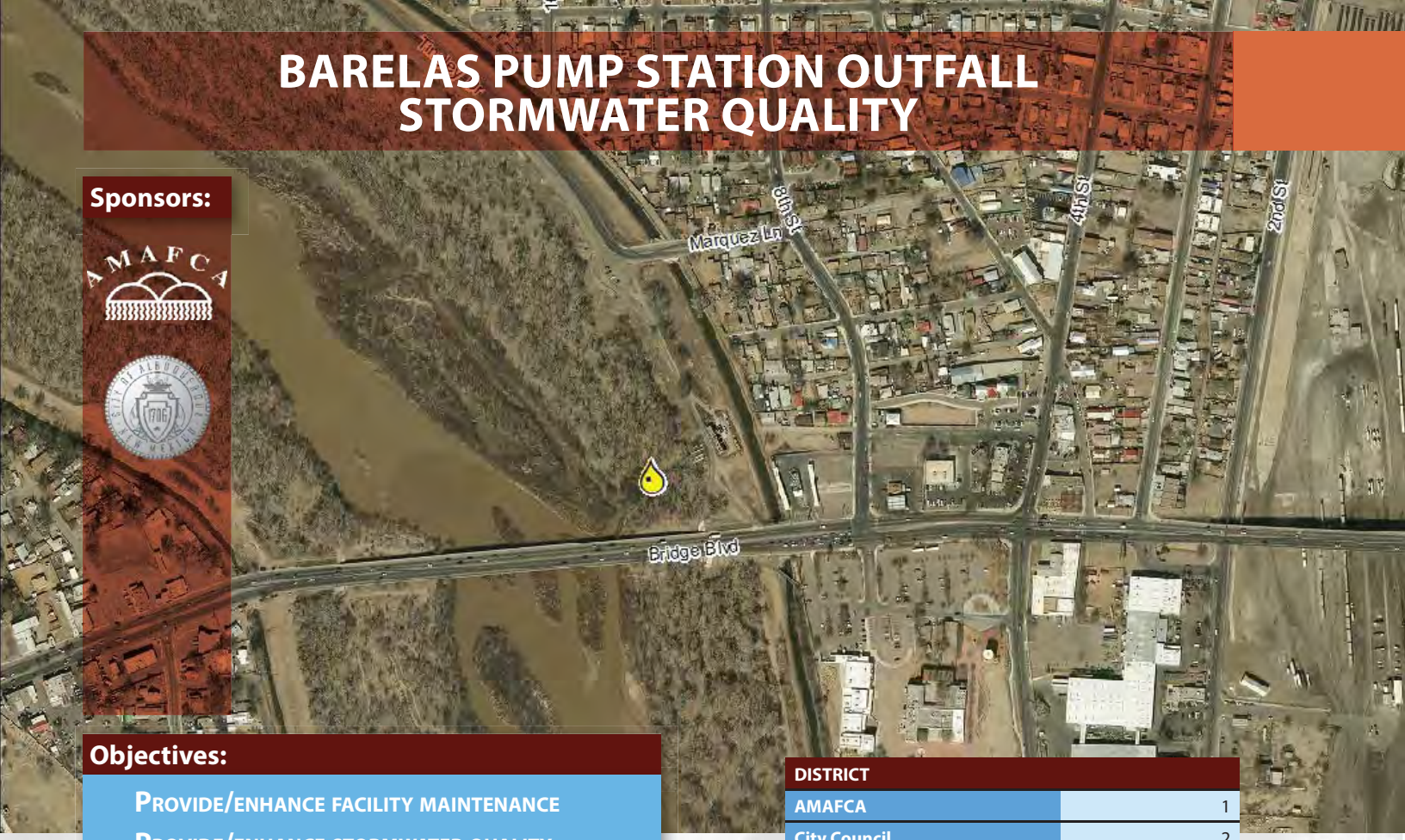
- Provide/increase system/facility capacity
- Reduce drainage/flooding issues
- Remove floodplain
- Provide/enhance facility maintenance

Total Cost: $671,000

Description:

The Amole Dam outfall pipe is currently controlled by a manually-operated gate valve that must be coordinated with the Middle Rio Grande Conservancy District to release detained stormwater into the Arenal Main Canal to avoid flooding or overtopping the canal. As part of the Corps of Engineers South-west Valley Flood Reduction Project, this project will complete the gravity outfall from the Amole dam through Navajo Elementary School and tie into the Isleta Drain. The project will also provide Navajo Elementary School with a conduit for its stormwater and remove floodplain on the school property and surrounding neighborhood. The completion of this project will provide additional capacity in the dam for runoff from upstream development.

BARELAS PUMP STATION OUTFALL STORMWATER QUALITY



Sponsors:

AMAFCA

Objectives:

- Provide/enhance facility maintenance
- Provide/enhance stormwater quality

Total Cost: $419,000

DISTRICT	
AMAFCA	1
City Council	2
County Commission	2
NM Senate	12
NM House	14

Potential AMAFCA Funding: $209,500

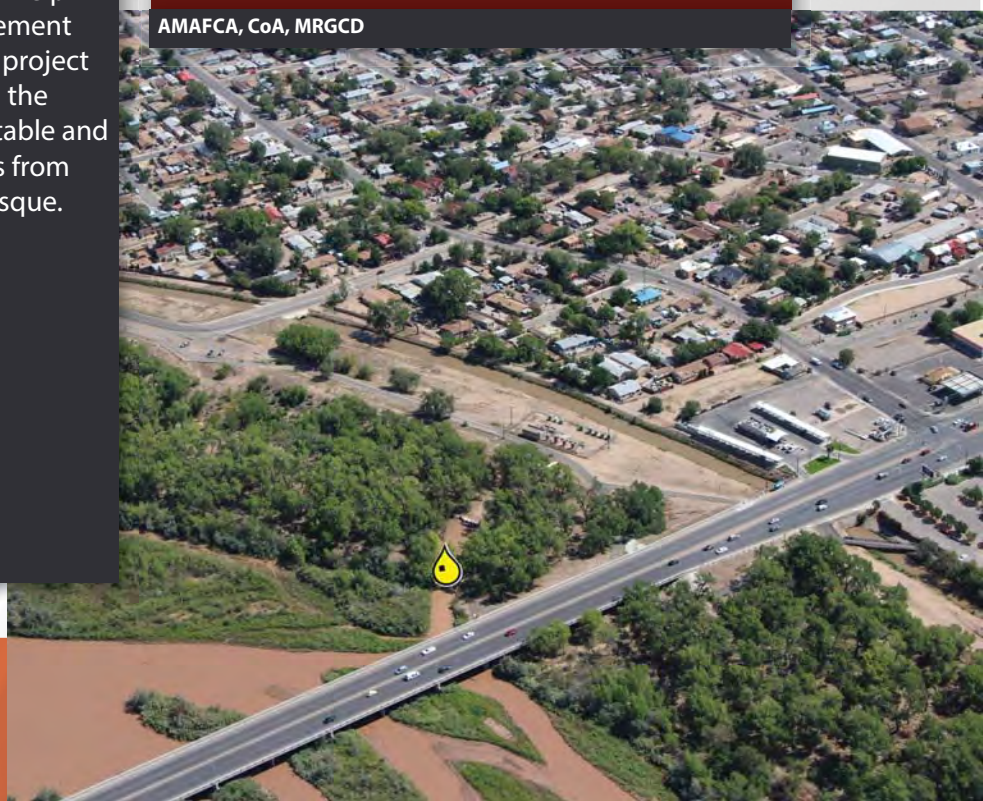
2018	2019	2020	2021	2022	2023
$209,500					

Description:

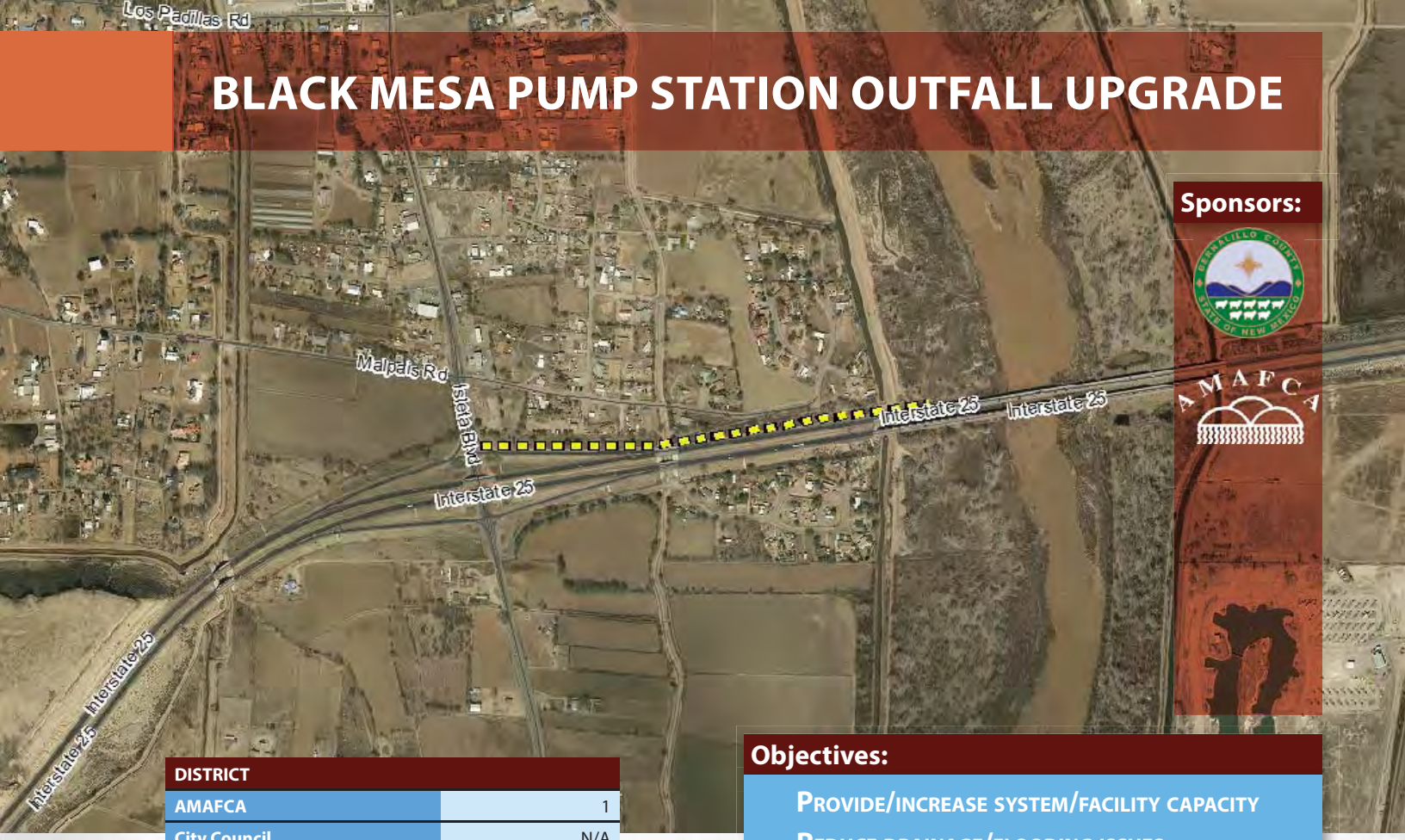
Stormwater quality improvements will be made to the Barelas Pump Station at the discharge pipes in the Bosque. The improvements to the system will help to satisfy the EPA stormwater quality improvement permit requirements for the Rio Grande. This project will concentrate on making improvements in the Bosque outfall basin to attain additional floatable and solids settling. Meandering, unlined channels from the basin will be constructed through the Bosque.

Stakeholders:

AMAFCA, CoA, MRGCD



BLACK MESA PUMP STATION OUTFALL UPGRADE



Sponsors:

DISTRICT	
AMAFCA	1
City Council	N/A
County Commission	2
NM Senate	14
NM House	10

Potential AMAFCA Funding: $507,000

2018	2019	2020	2021	2022	2023
	$103,000	$404,000			

Stakeholders:

NMDOT, BernCo, MRGCD, COE

Objectives:

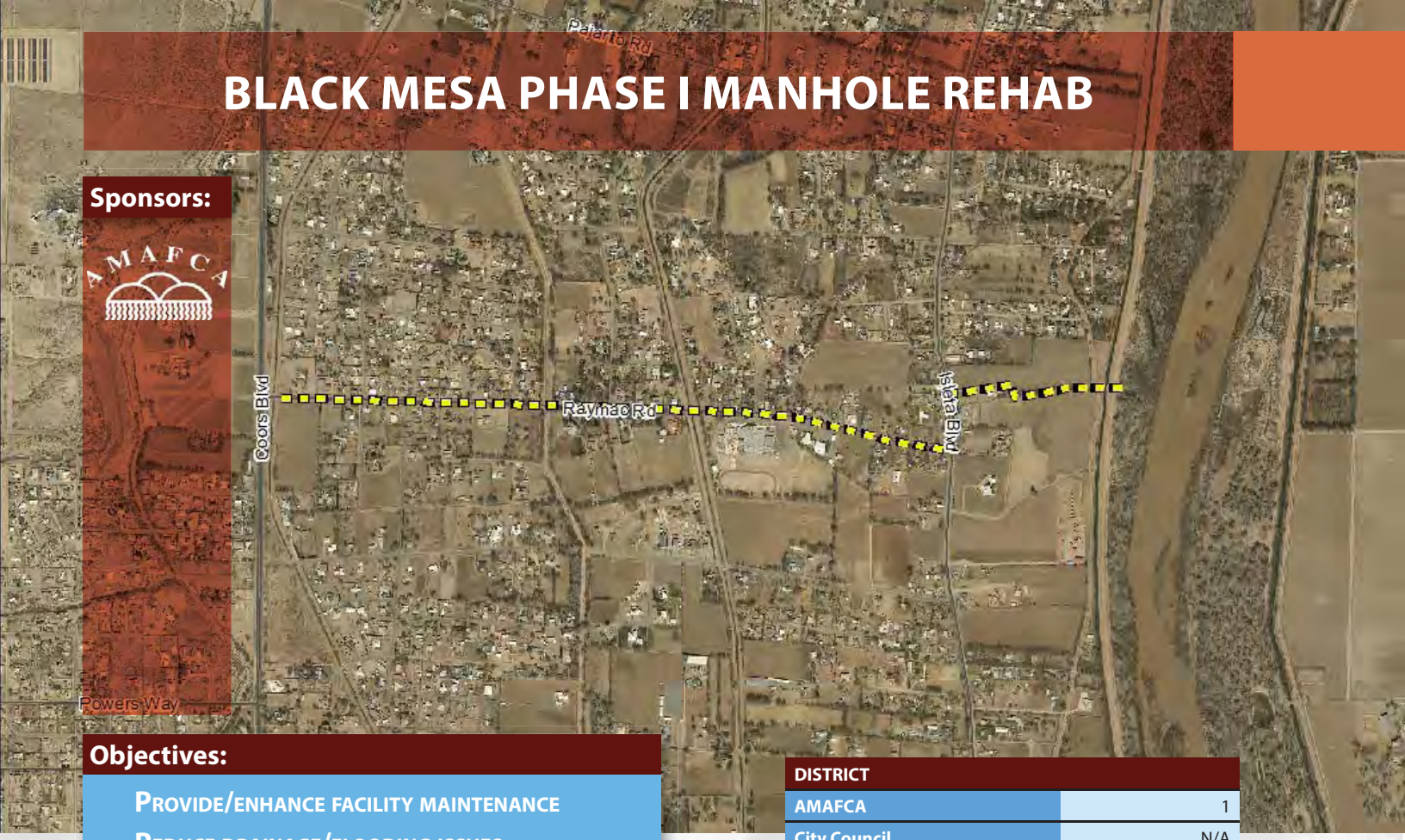
- Provide/increase system/facility capacity
- Reduce drainage/flooding issues
- Remove floodplain
- Provide/enhance stormwater quality

Total Cost: $1,014,000

Description:

Master planned storm drain facilities identified in the Southwest Valley Flood Reduction Feasibility Project will be installed to remove floodplain on the valley floor. In addition to widening Middle Rio Grande Conservancy District Drains and rebuilding the Black Mesa Pump Station and force main, the project will utilize in-line storage in the Los Padillas Drain. The Isleta Drain will collect runoff and convey it to the Rio Grande. Best Management Practices will be used to enhance stormwater quality. The capacity of the Black Mesa Pond on Malpais Road will be increased to 115 acre-feet to accept overflow runoff from the Los Padillas and Isleta Drains to avoid overwhelming facilities within the Isleta Reservation. The pump and force main must be sized for flows of 50 cubic feet per second.

BLACK MESA PHASE I MANHOLE REHAB



Sponsors:

AMAFCA

Objectives:

- Provide/enhance facility maintenance
- Reduce drainage/flooding issues

Total Cost: $1,000,000

DISTRICT	
AMAFCA	1
City Council	N/A
County Commission	2
NM Senate	14
NM House	10

Potential AMAFCA Funding: $1,000,000

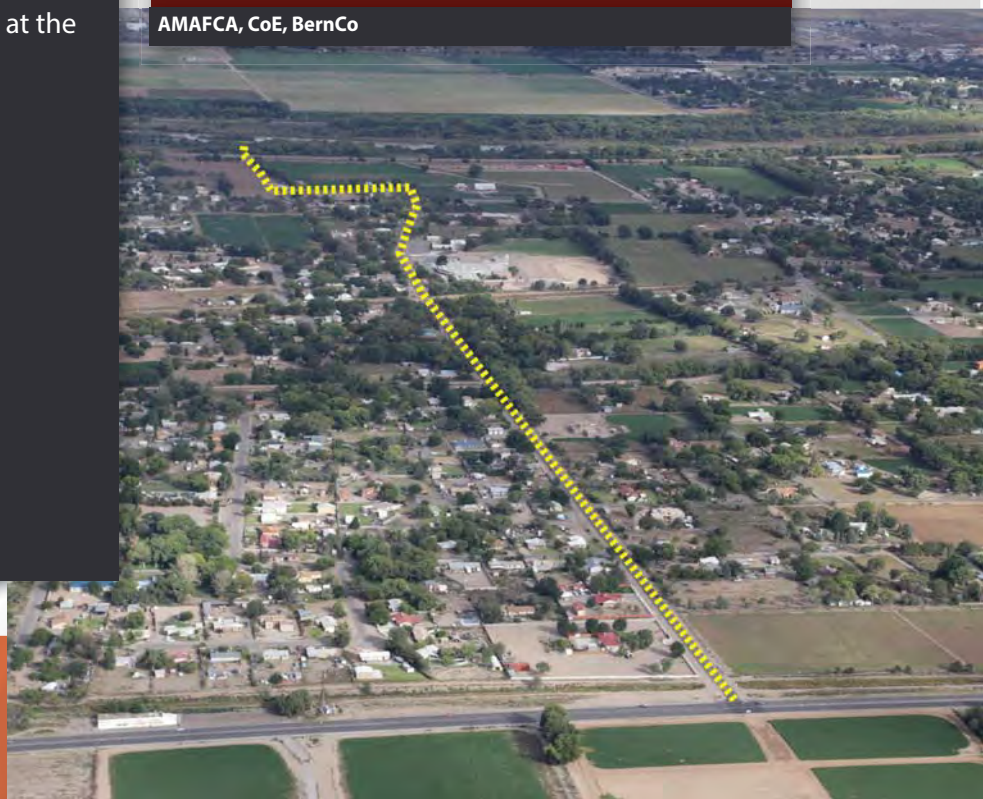
2018	2019	2020	2021	2022	2023
$100,000	$900,000				

Description:

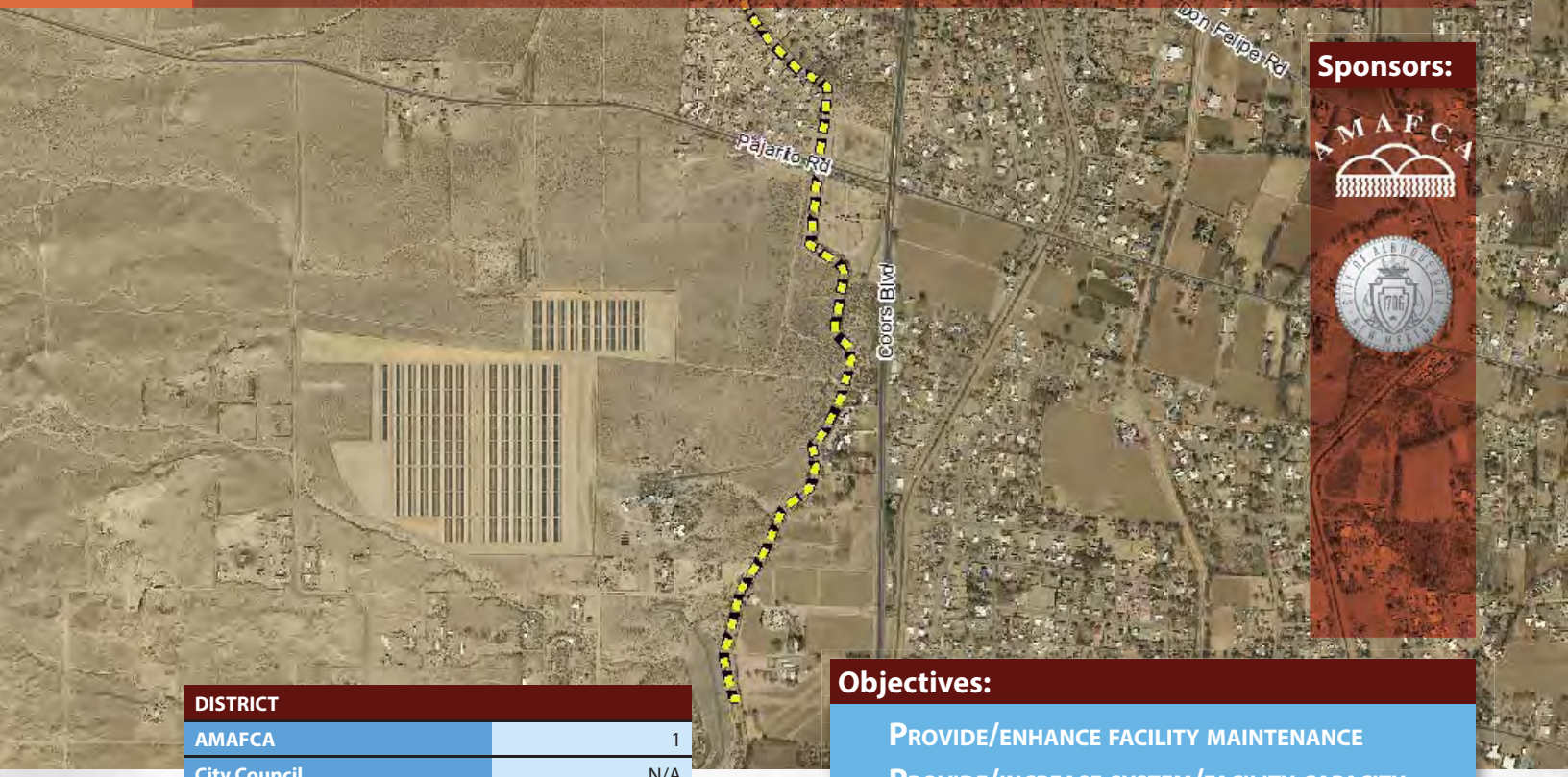
This project will retrofit the existing manholes of the Black Mesa Phase I pipe. The pipe is currently installed within the groundwater in the area. This retrofit will prevent groundwater from entering the pipe at the manhole junctions.

Stakeholders:

AMAFCA, CoE, BernCo



BLACK MESA STORM DRAIN (DON FELIPE)



Sponsors:

DISTRICT	
AMAFCA	1
City Council	N/A
County Commission	2
NM Senate	14
NM House	10, 26

Potential AMAFCA Funding: $4,803,000

2018	2019	2020	2021	2022	2023
$200,000	$4,603,000				

Stakeholders:

AMAFCA, MRGCD, COE, BernCo

Objectives:

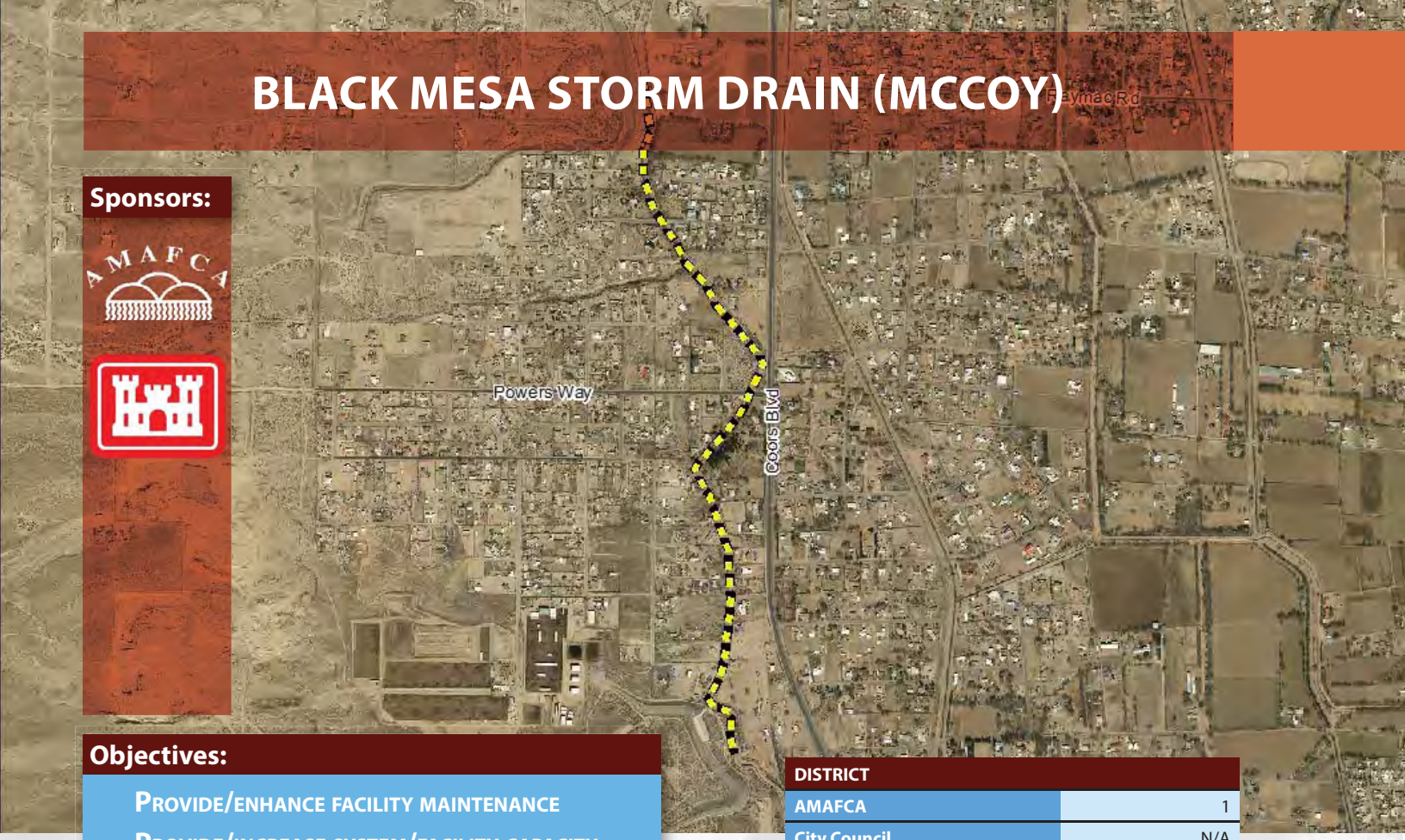
- Provide/enhance facility maintenance
- Provide/increase system/facility capacity
- Provide/enhance stormwater quality
- Reduce drainage/flooding issues

Total Cost: $4,803,000

Description:

The Don Felipe Dam outfall pipe is currently controlled by a manually-operated gate valve that must be coordinated with the Middle Rio Grande Conservancy District to release detained stormwater into the Gun Club Lateral to avoid flooding or over-topping the canal. This project will install a gravity outlet pipe roughly 7,000 linear feet in length, in the Gun Club Lateral right of way connecting the outlet of the dam to the existing Black Mesa Three-Dam Outlet pipe built in Raymac Drive. The new outlet will provide additional capacity in the dam for runoff from upstream development, reduce local flooding and drainage problems. In addition, a water quality facility for the enhancement of stormwater flows will be identified and included in this project.

BLACK MESA STORM DRAIN (MCCOY)



Sponsors:

AMAFCA

Objectives:

- Provide/enhance facility maintenance
- Provide/increase system/facility capacity
- Provide/enhance stormwater quality
- Reduce drainage/flooding issues

Total Cost: $3,541,000

DISTRICT	
AMAFCA	1
City Council	N/A
County Commission	2
NM Senate	14
NM House	26

Potential AMAFCA Funding: $3,541,000

2018	2019	2020	2021	2022	2023
$150,000		$3,391,000			

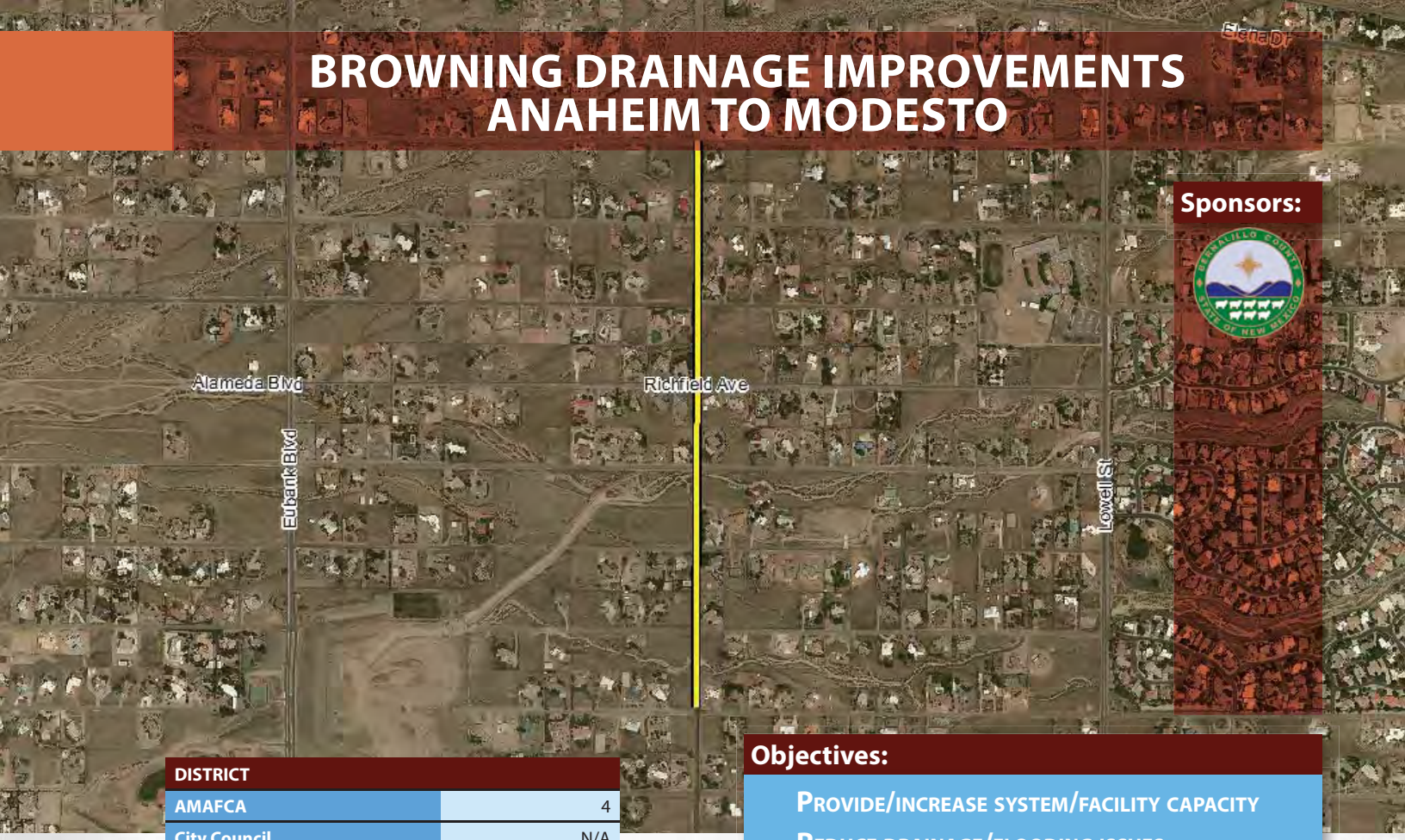
Description:

The McCoy Dam outfall pipe is currently controlled by a manually-operated gate valve that must be coordinated with the Middle Rio Grande Conservancy District to release detained stormwater into the Gun Club Lateral to avoid flooding or overtopping the canal. This project will install a gravity outlet pipe roughly 6,400 linear feet in length, in the Gun Club Lateral right of way connecting the outlet of the dam to the existing Black Mesa Three-Dam Outlet pipe built in Raymac Drive. The new outlet will provide additional capacity in the dam for runoff from upstream development, reduce local flooding and drainage problems. In addition, a water quality facility for the enhancement of stormwater flows will be identified and included in this project.

Stakeholders:

AMAFCA, MRGCD, COE, BernCo

BROWNING DRAINAGE IMPROVEMENTS ANAHEIM TO MODESTO



Sponsors:

DISTRICT	
AMAFCA	4
City Council	N/A
County Commission	4
NM Senate	21
NM House	31

Potential AMAFCA Funding: $600,000

2018	2019	2020	2021	2022	2023
$600,000					

Stakeholders:

BernCo, AMAFCA

Objectives:

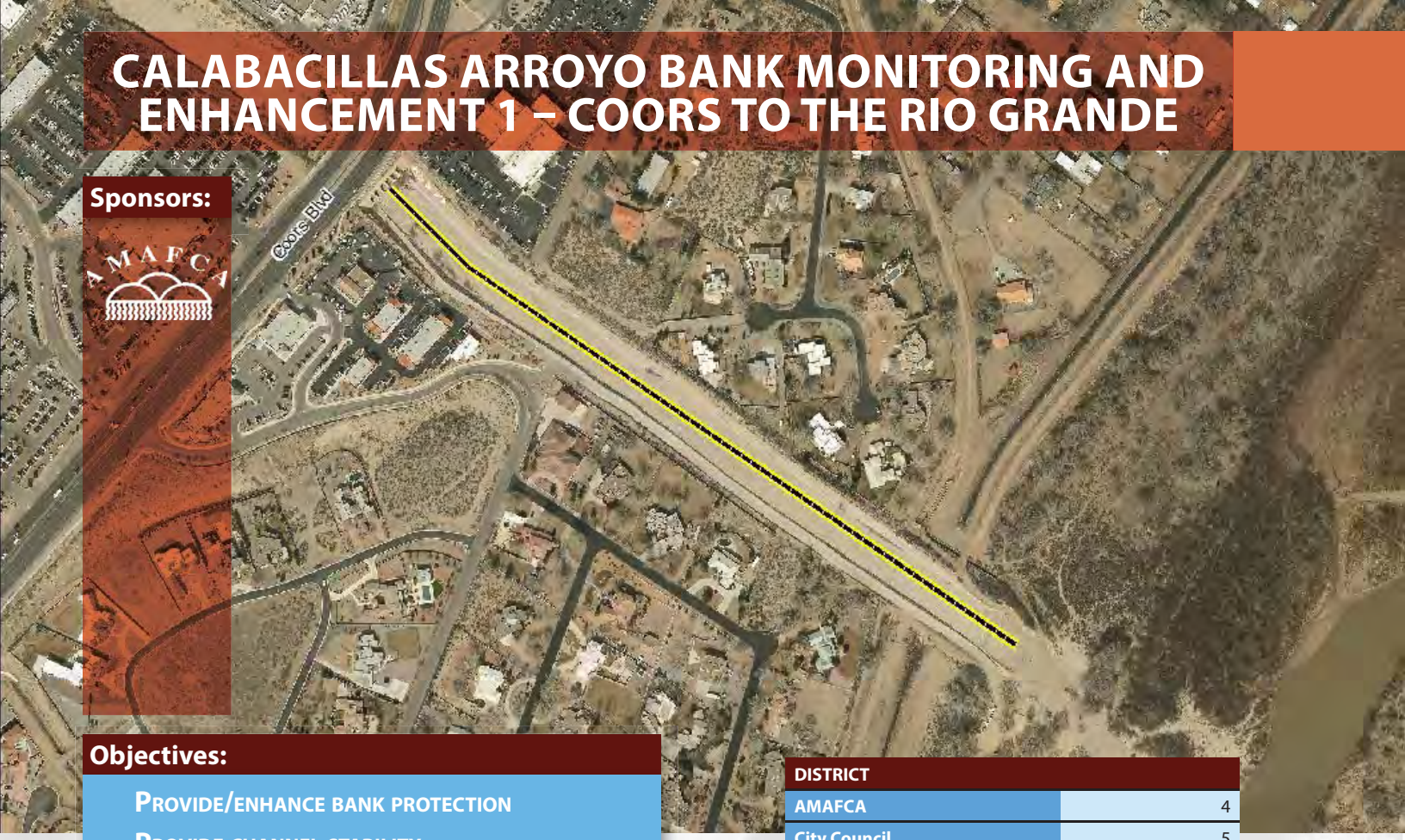
- Provide/increase system/facility capacity
- Reduce drainage/flooding issues

Total Cost: $1,200,000

Description:

The installation of large diameter culverts where Browning crosses two different arroyos will allow local residents to travel on a road that will not be inundated with storm runoff, sediment and debris from moderate storms

CALABACILLAS ARROYO BANK MONITORING AND ENHANCEMENT 1 – COORS TO THE RIO GRANDE



Sponsors:

AMAFCA

Objectives:

- Provide/enhance bank protection
- Provide channel stability

Total Cost: $500,000

DISTRICT	
AMAFCA	4
City Council	5
County Commission	4
NM Senate	10
NM House	23

Potential AMAFCA Funding: $500,000

2018	2019	2020	2021	2022	2023
	$100,000	$100,000	$100,000	$100,000	$100,000

Description:

The Calabacillas Arroyo is a flood control facility that mimics a natural channel that provides open space and recreational corridors in northwest Albuquerque. Materials such as soil cement and rip rap have been used throughout the facility to provide bank protection and grade control. These materials offer a natural appearance and blend in with the surrounding landscape. To ensure that the system is functioning as designed, these protective treatments must be monitored and inspected for damage or degradation. This facility has been split into four reaches within the Calabacillas Arroyo. This project will monitor channel erosion, protective treatments, and channel performance along with construction enhancements and modifications where necessary in the reach from Coors Boulevard to the Rio Grande.

Stakeholders:

COA Open Space Division, AMAFCA, Adjacent land owners

CALABACILLAS ARROYO BANK MONITORING AND ENHANCEMENT 2 – EAGLE RANCH TO COORS

Sponsors:

DISTRICT	
AMAFCA	4
City Council	5
County Commission	4
NM Senate	10
NM House	23, 68

Objectives:

- Provide/enhance bank protection
- Provide channel stability

Total Cost: $500,000

Potential AMAFCA Funding: $500,000

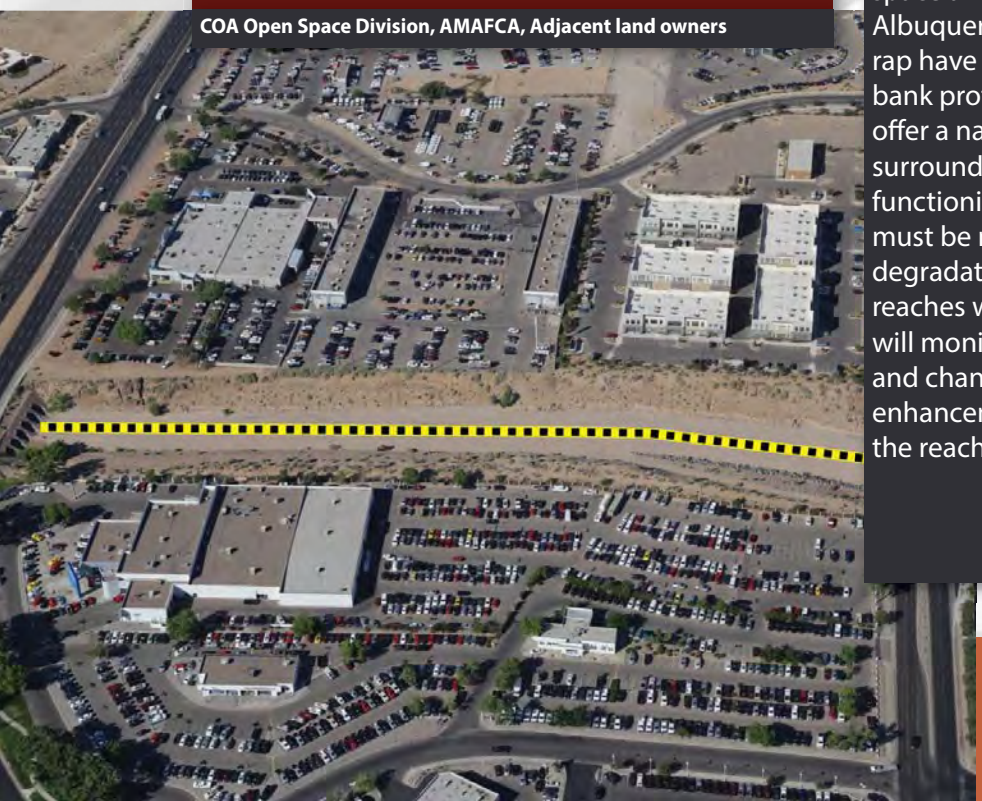
2018	2019	2020	2021	2022	2023
$50,000	$100,000	$100,000	$100,000	$100,000	$50,000

Stakeholders:

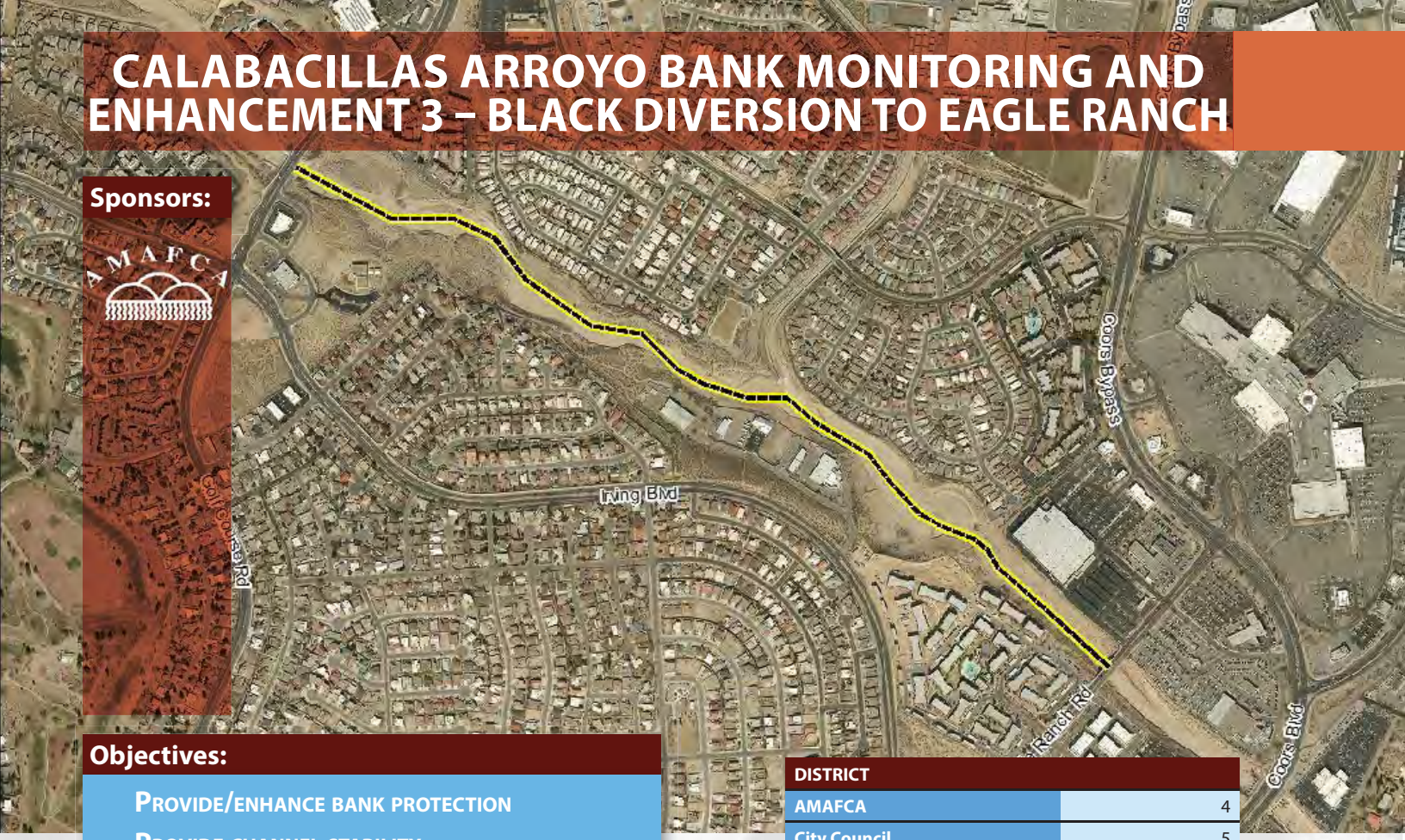
COA Open Space Division, AMAFCA, Adjacent land owners

Description:

The Calabacillas Arroyo is a flood control facility that mimics a natural channel that provides open space and recreational corridors in northwest Albuquerque. Materials such as soil cement and rip rap have been used throughout the facility to provide bank protection and grade control. These materials offer a natural appearance and blend in with the surrounding landscape. To ensure that the system is functioning as designed, these protective treatments must be monitored and inspected for damage or degradation. This facility has been split into four reaches within the Calabacillas Arroyo. This project will monitor channel erosion, protective treatments, and channel performance along with construction enhancements and modifications where necessary in the reach from Eagle Ranch to Coors Boulevard.



CALABACILLAS ARROYO BANK MONITORING AND ENHANCEMENT 3 – BLACK DIVERSION TO EAGLE RANCH



Sponsors:

AMAFCA

Objectives:

- Provide/enhance bank protection
- Provide channel stability

Total Cost: $500,000

DISTRICT	
AMAFCA	4
City Council	5
County Commission	4
NM Senate	10
NM House	23, 68

Potential AMAFCA Funding: $500,000

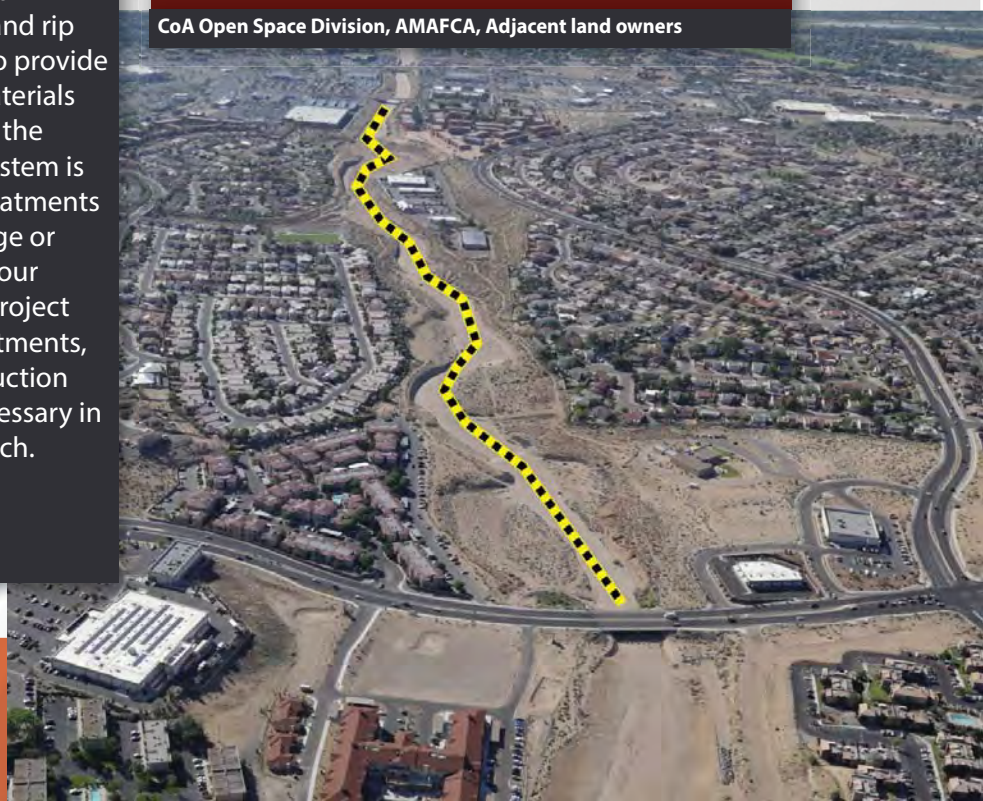
2018	2019	2020	2021	2022	2023
$50,000	$100,000	$100,000	$100,000	$100,000	$50,000

Description:

The Calabacillas Arroyo is a flood control facility that mimics a natural channel that provides open space and recreational corridors in northwest Albuquerque. Materials such as soil cement and rip rap have been used throughout the facility to provide bank protection and grade control. These materials offer a natural appearance and blend in with the surrounding landscape. To ensure that the system is functioning as designed, these protective treatments must be monitored and inspected for damage or degradation. This facility has been split into four reaches within the Calabacillas Arroyo. This project will monitor channel erosion, protective treatments, and channel performance along with construction enhancements and modifications where necessary in the reach from Black's Diversion to Eagle Ranch.

Stakeholders:

CoA Open Space Division, AMAFCA, Adjacent land owners



CALABACILLAS ARROYO BANK MONITORING AND ENHANCEMENT 4 – GOLF COURSE TO UNSER BLVD

Sponsors:

AMAFCA

DISTRICT	
AMAFCA	2
City Council	5
County Commission	4
NM Senate	10
NM House	68

Potential AMAFCA Funding: $500,000

2018	2019	2020	2021	2022	2023
$100,000	$100,000	$100,000	$100,000	$50,000	$50,000

Stakeholders:

CoA Open Space Division, AMAFCA, Adjacent land owners

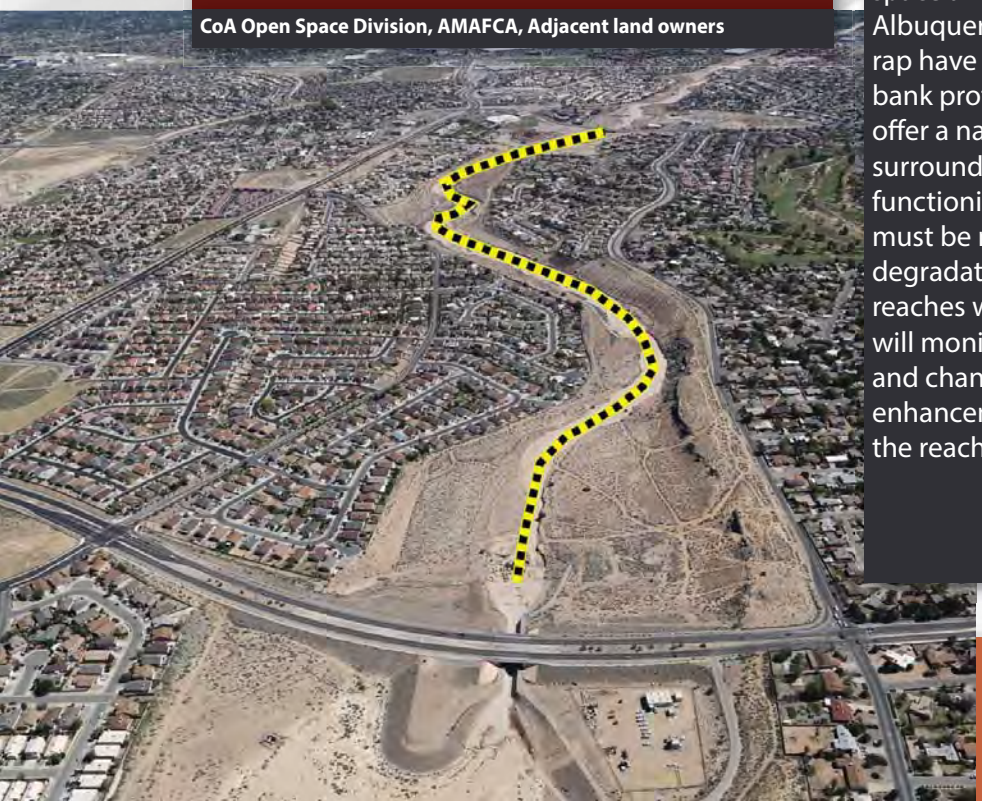
Objectives:

- Provide/enhance bank protection
- Provide channel stability

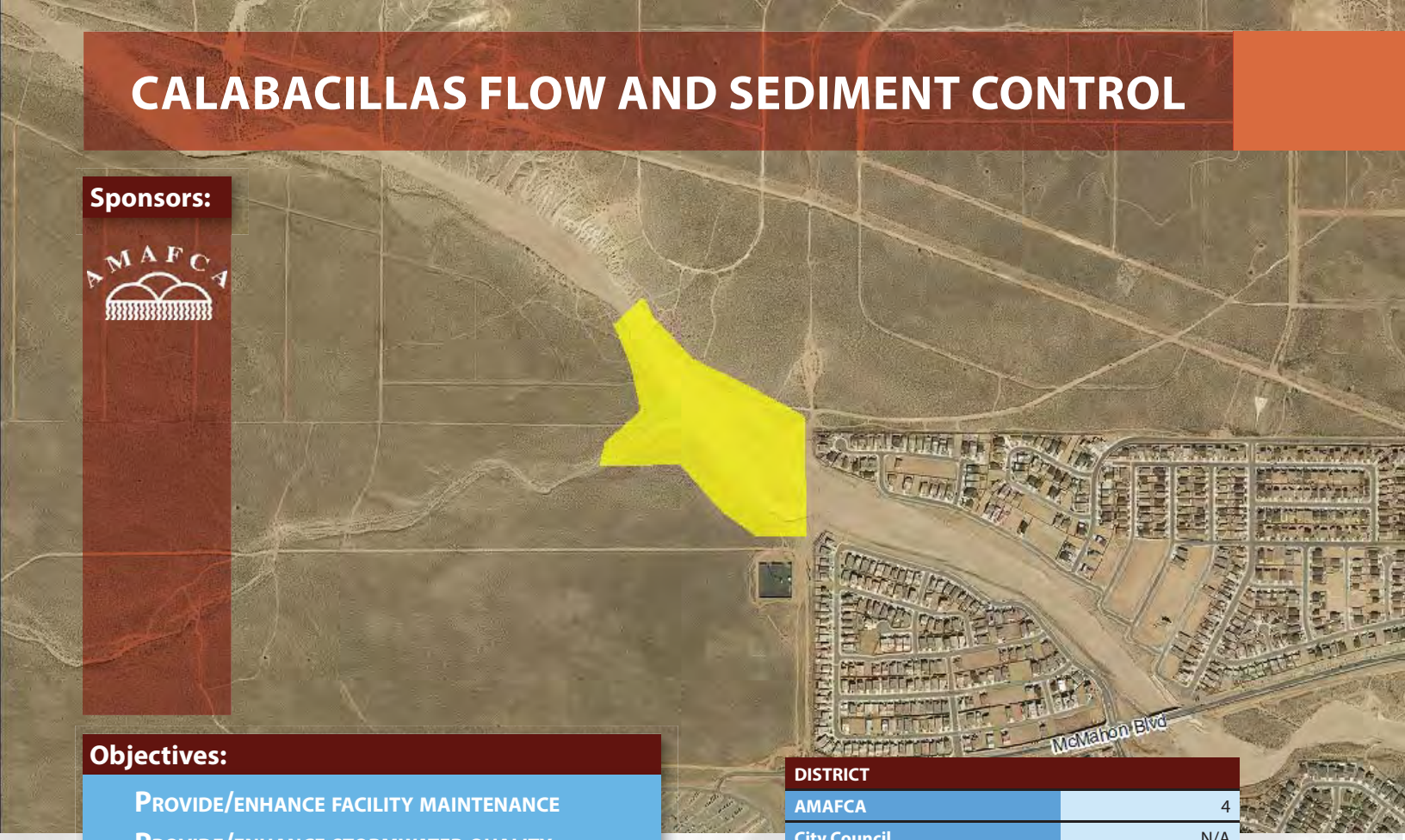
Total Cost: $500,000

Description:

The Calabacillas Arroyo is a flood control facility that mimics a natural channel that provides open space and recreational corridors in northwest Albuquerque. Materials such as soil cement and rip rap have been used throughout the facility to provide bank protection and grade control. These materials offer a natural appearance and blend in with the surrounding landscape. To ensure that the system is functioning as designed, these protective treatments must be monitored and inspected for damage or degradation. This facility has been split into four reaches within the Calabacillas Arroyo. This project will monitor channel erosion, protective treatments, and channel performance along with construction enhancements and modifications where necessary in the reach from Golf Course to Unser Boulevard.



CALABACILLAS FLOW AND SEDIMENT CONTROL



Sponsors:

AMAFCA

Objectives:

- Provide/enhance facility maintenance
- Provide/enhance stormwater quality
- Provide/increase system/facility capacity

Total Cost: $2,310,000

DISTRICT	
AMAFCA	4
City Council	N/A
County Commission	4
NM Senate	10, 23
NM House	29, 60, 68

Potential AMAFCA Funding: $2,310,000

2018	2019	2020	2021	2022	2023
		$110,000	$1,300,000	$900,000	

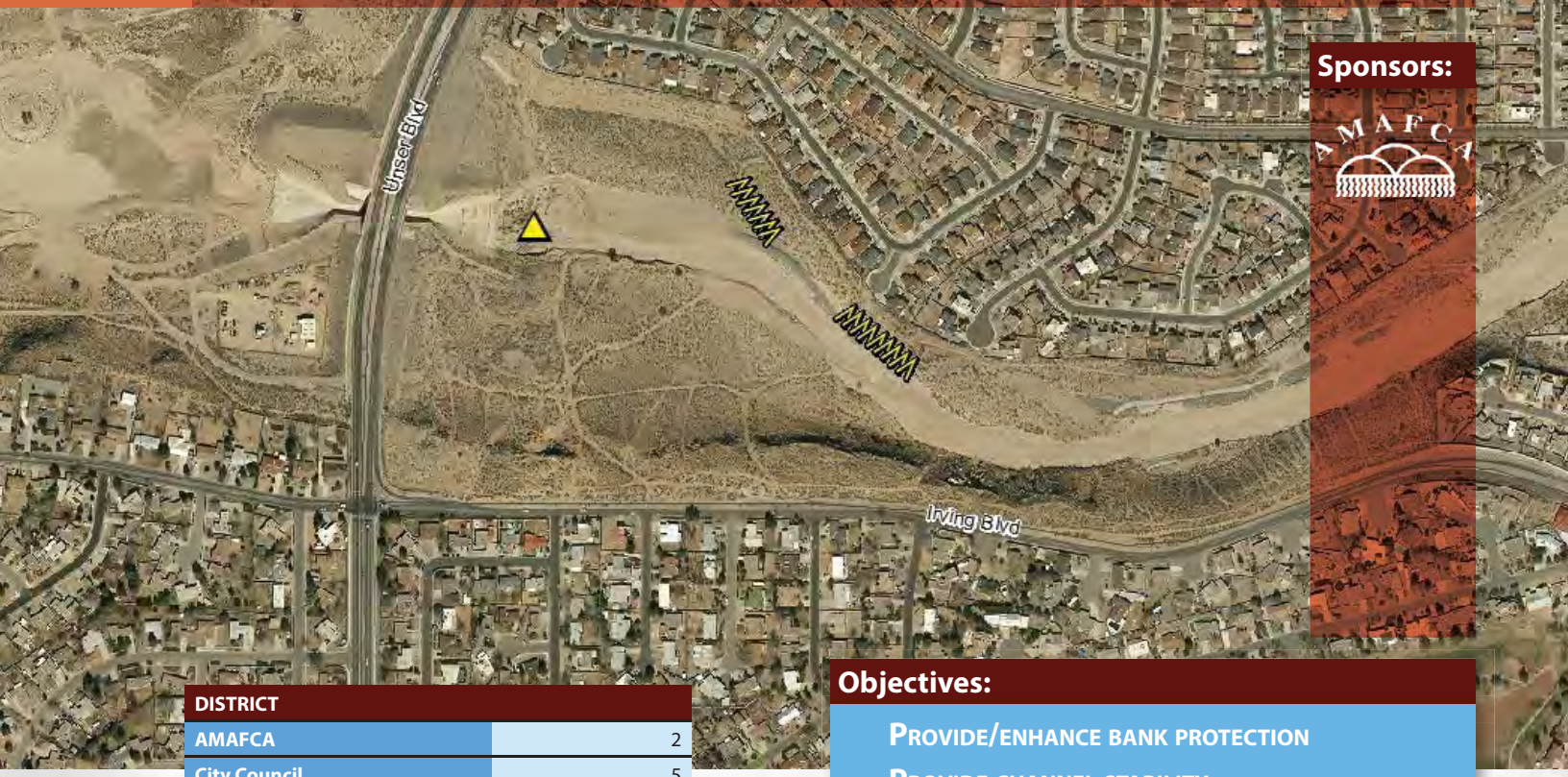
Description:

The grade control structures below Swinburne Dam are sized for the design outflow of the dam. To ensure that the peak outflow is not impacted by higher than normal inflow, a flow control structure may be needed on the main branch of the Calabacillas Arroyo. The design of this structure would have a sediment retention aspect to improve stormwater quality.

Stakeholders:

AMAFCA, SSCAFCA

CALABACILLAS GC1A1 & GC1A EXPANSION



Sponsors:

AMAFCA

DISTRICT	
AMAFCA	2
City Council	5
County Commission	4
NM Senate	10
NM House	68

Potential AMAFCA Funding: $1,500,000

2018	2019	2020	2021	2022	2023
$1,500,000					

Stakeholders:

AMAFCA, CoA Open Space

Objectives:

- Provide/enhance bank protection
- Provide channel stability

Total Cost: $1,500,000

Description:

Calabacillas Grade Control Structure 1a1 was identified in the Calabacillas Arroyo Facility Plan as a needed structure to protect the spillway apron of Swinburne Dam. Calabacillas Grade Control Structure 1a was identified as requiring expansion in the Calabacillas Arroyo Facility Plan. Both of these structures will keep the Calabacillas Arroyo within the erosion setbacks identified when development in the area started.

CALABACILLAS-CORRALES STORMWATER QUALITY FACILITY

Sponsors:

AMAFCA

Middle Rio Grande Conservancy District

Objectives:

PROVIDE/ENHANCE STORMWATER QUALITY

Total Cost: $1,406,000

DISTRICT	
AMAFCA	4
City Council	5
County Commission	4
NM Senate	10
NM House	23

Potential AMAFCA Funding: $1,406,000

2018	2019	2020	2021	2022	2023
	$200,000	$1,206,000			

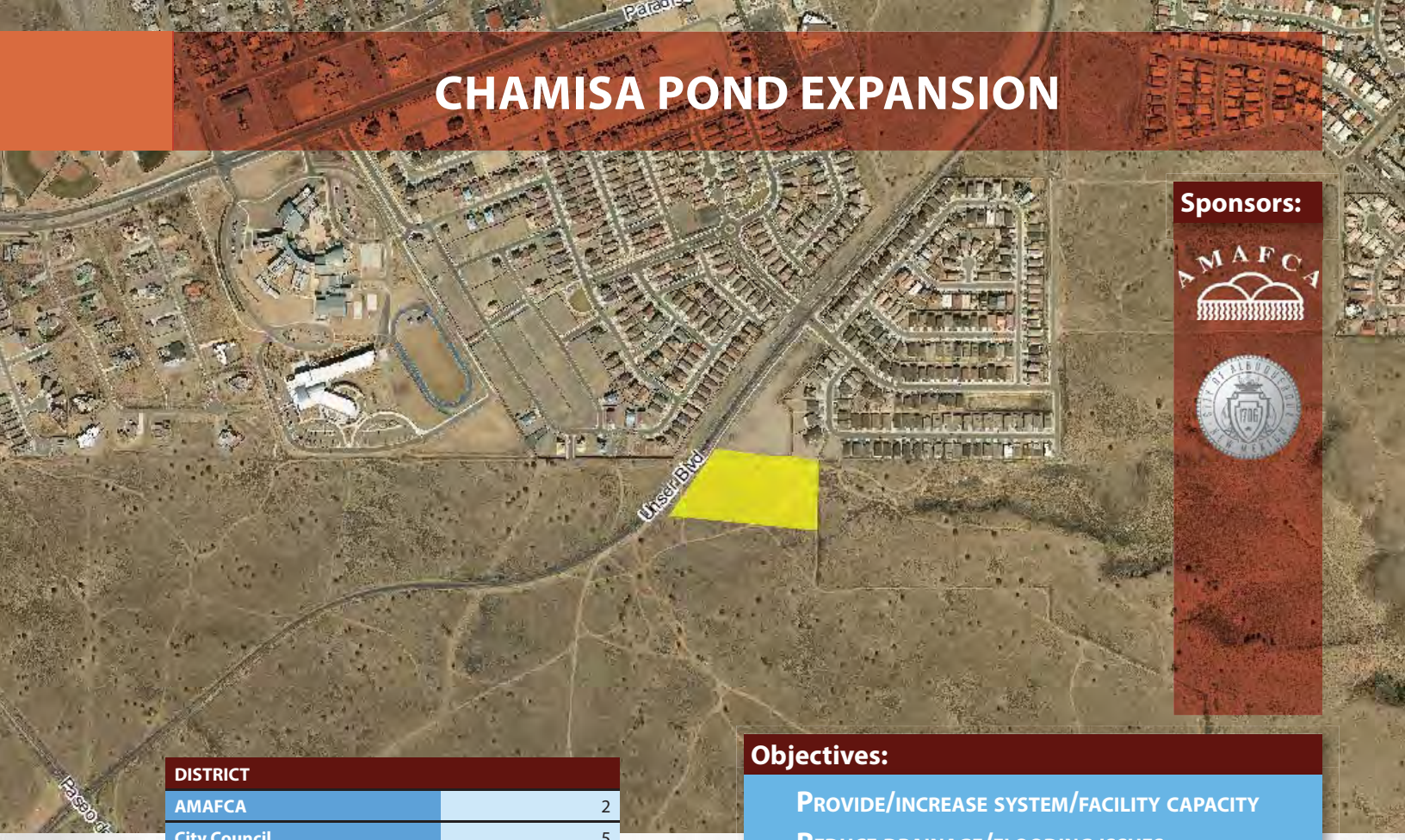
Description:

The Calabacillas-Corrales stormwater quality facility will be constructed adjacent to the Corrales Main Canal, near the Calabacillas Arroyo. The facility will trap trash and debris at the overflow structure where stormwater is separated from the irrigation water.

Stakeholders:

AMAFCA, MRGCD, CoA

CHAMISA POND EXPANSION



Sponsors:

DISTRICT	
AMAFCA	2
City Council	5
County Commission	4
NM Senate	23
NM House	29

Potential AMAFCA Funding: $364,500

2018	2019	2020	2021	2022	2023
$100,000	$264,500				

Stakeholders:

AMAFCA, CoA

Objectives:

- Provide/increase system/facility capacity
- Reduce drainage/flooding issues
- Provide/enhance stormwater quality

Total Cost: $729,000

Description:

The expansion of the Chamisa Pond will provide additional storage of diverted runoff from the Upper Piedras Marcadas watershed and maximize the use of the Lyon Blvd storm drain system. The diverted runoff will reduce flow to the Piedras Marcadas Dam, which is near capacity. The Chamisa Pond will be modified to reduce sediment and trash resulting in improvements in stormwater quality.

CORRALES MAIN DIVERSION

Sponsors:

AMAFCA

Objectives:

- Provide/increase system/facility capacity
- Provide early hazard warning
- Reduce drainage/flooding issues

Total Cost: $800,000

DISTRICT	
AMAFCA	4
City Council	5
County Commission	4
NM Senate	10
NM House	23

Potential AMAFCA Funding: $800,000

2018	2019	2020	2021	2022	2023
$150,000	$650,000				

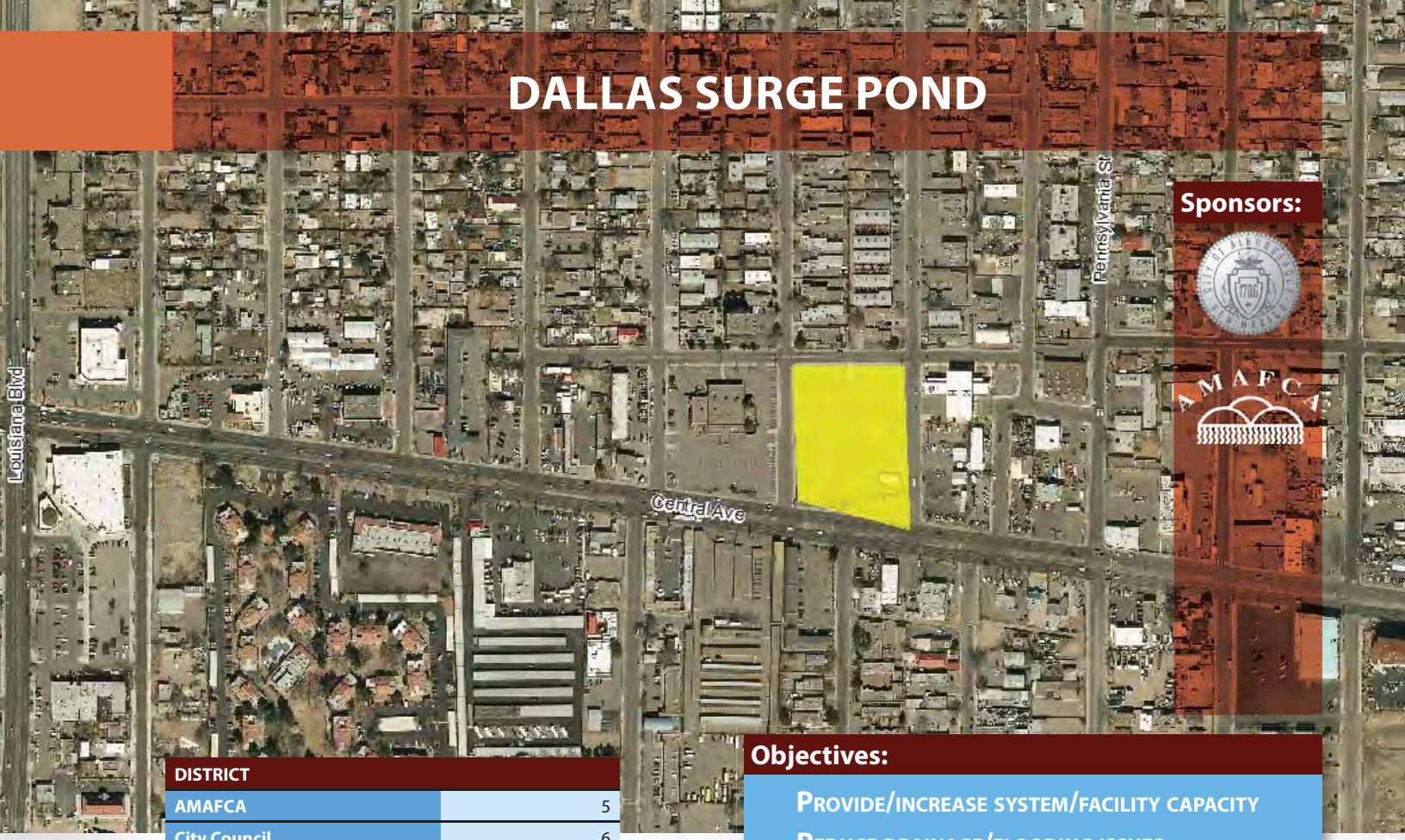
Description:

This project will install a gated structure in the Corrales Main Canal at the Calabacillas siphon that will close and divert irrigation water out of the Canal into the Bosque when the Piedras Marcadas dam is operating. The gate will open again once the dam ceases discharging to the Canal.

Stakeholders:

CoA, MRGCD, AMAFCA, OSE

DALLAS SURGE POND



Sponsors:

DISTRICT	
AMAFCA	5
City Council	6
County Commission	3
NM Senate	17
NM House	19

Objectives:

- Provide/increase system/facility capacity
- Reduce drainage/flooding issues
- Remove floodplain

Total Cost: $400,000

Potential AMAFCA Funding: $200,000

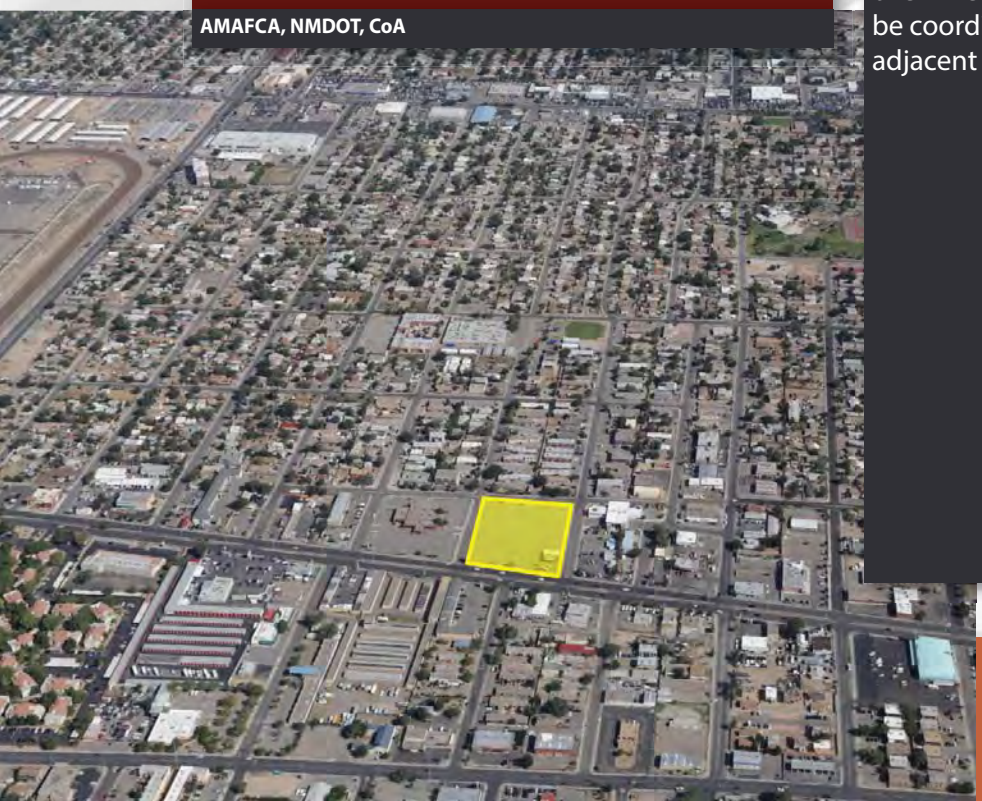
2018	2019	2020	2021	2022	2023
$200,000					

Stakeholders:

AMAFCA, NMDOT, CoA

Description:

A surge pond near the Dallas Storm Drain will provide temporary storage for stormwater that periodically overwhelms the drainage system. This structure will be coordinated within the redevelopment of the adjacent block.



GE POND

Sponsors:

Objectives:

- Provide/increase system/facility capacity
- Reduce drainage/flooding issues

Total Cost: $4,042,000

DISTRICT	
AMAFCA	1
City Council	2
County Commission	2
NM Senate	14
NM House	10

Potential AMAFCA Funding: $2,201,000

2018	2019	2020	2021	2022	2023
$20,000	$2,001,000				

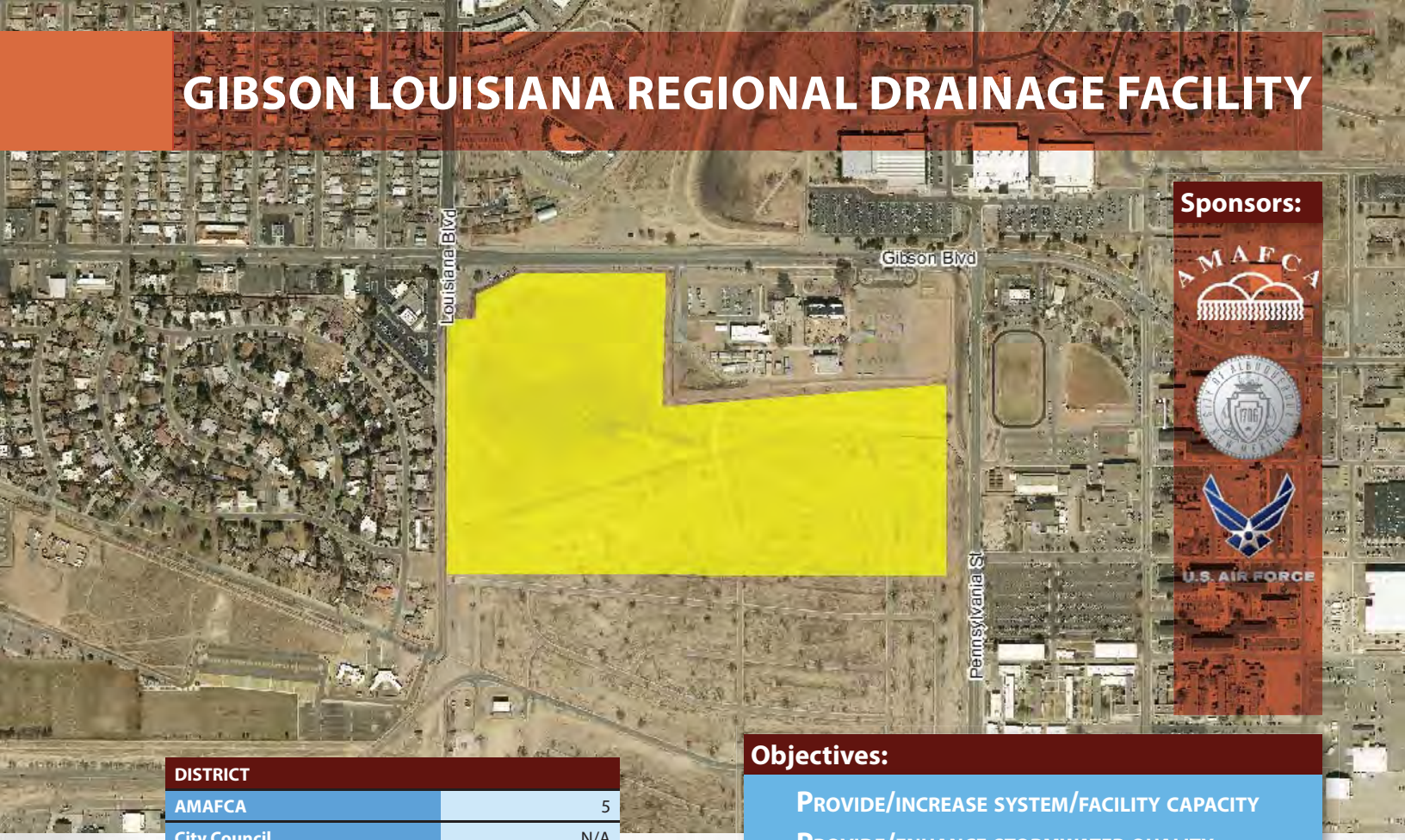
Description:

The future GE pond is adjacent to the San Jose Drain at the site of a former GE manufacturing facility. The pond will provide additional system capacity for the storm drainage network in the area, as well as provide stormwater quality opportunities.

Stakeholders:

AMAFCA, CoA, MRGCD

GIBSON LOUISIANA REGIONAL DRAINAGE FACILITY



Sponsors:

DISTRICT	
AMAFCA	5
City Council	N/A
County Commission	3
NM Senate	16
NM House	10

Potential AMAFCA Funding: $740,500

2018	2019	2020	2021	2022	2023
$740,500					

Stakeholders:

KAFB, AMAFCA, CoA, FEMA

Objectives:

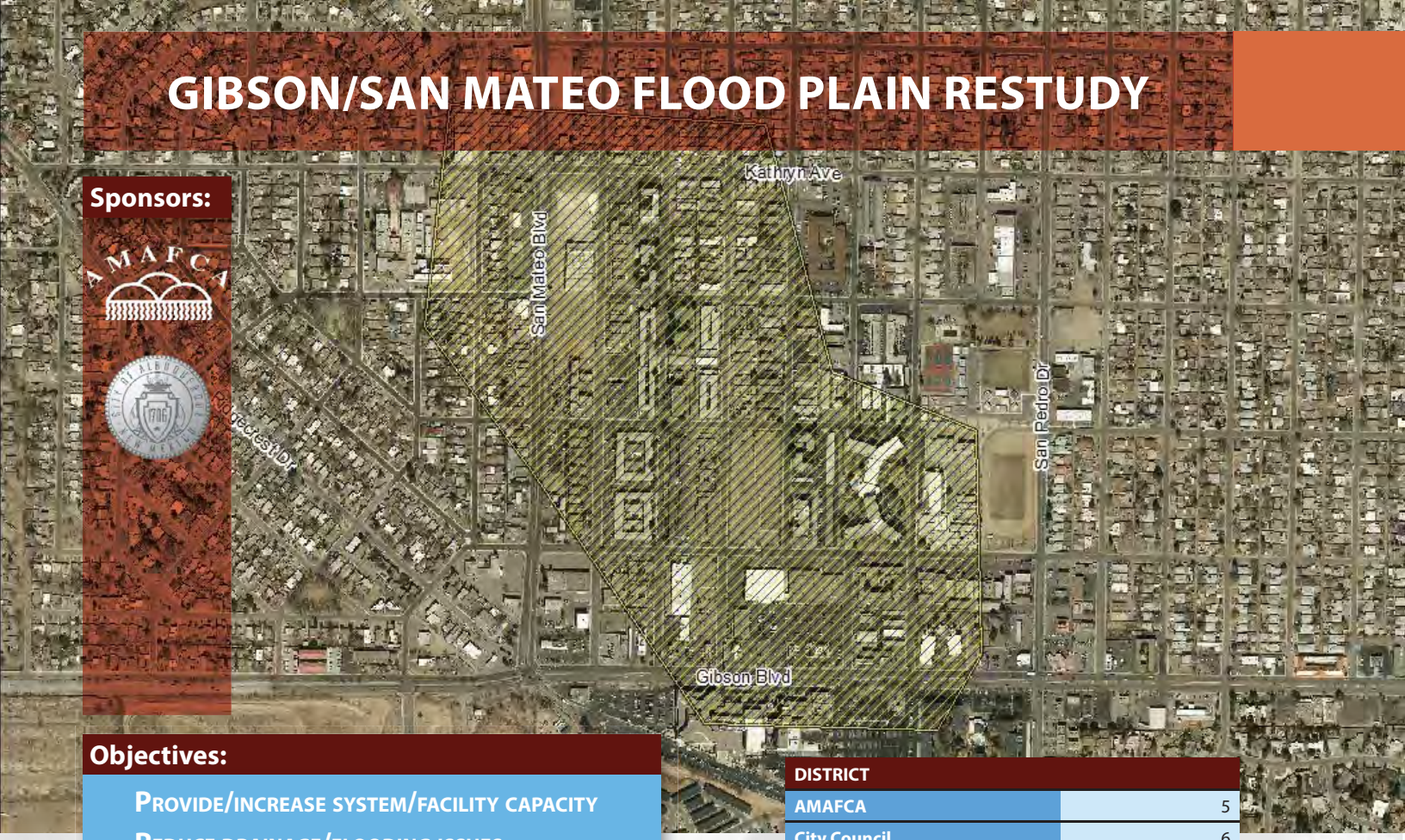
- Provide/increase system/facility capacity
- Provide/enhance stormwater quality

Total Cost: $1,481,000

Description:

The Kirtland Air Force Base (KAFB) South Detention Basin project will provide flood control and stormwater detention for runoff from KAFB which contributes to a floodplain in the San Pedro/Gibson area. A 30 acre-foot detention pond at the southeast quadrant of the Louisiana/Gibson intersection will be constructed to collect and limit runoff to prescribed peak flows. This detention facility may also be designed as a multi-use playing field with a water quality structure to satisfy KAFB's EPA MS4 Permit requirements. Careful coordination with the KAFB master-plan will be critical.

GIBSON/SAN MATEO FLOOD PLAIN RESTUDY



Sponsors:

Objectives:

- Provide/increase system/facility capacity
- Reduce drainage/flooding issues
- Remove floodplain
- Provide/enhance stormwater quality

Total Cost: $100,000

DISTRICT	
AMAFCA	5
City Council	6
County Commission	3
NM Senate	16, 17
NM House	19

Potential AMAFCA Funding: $50,000

2018	2019	2020	2021	2022	2023
$50,000					

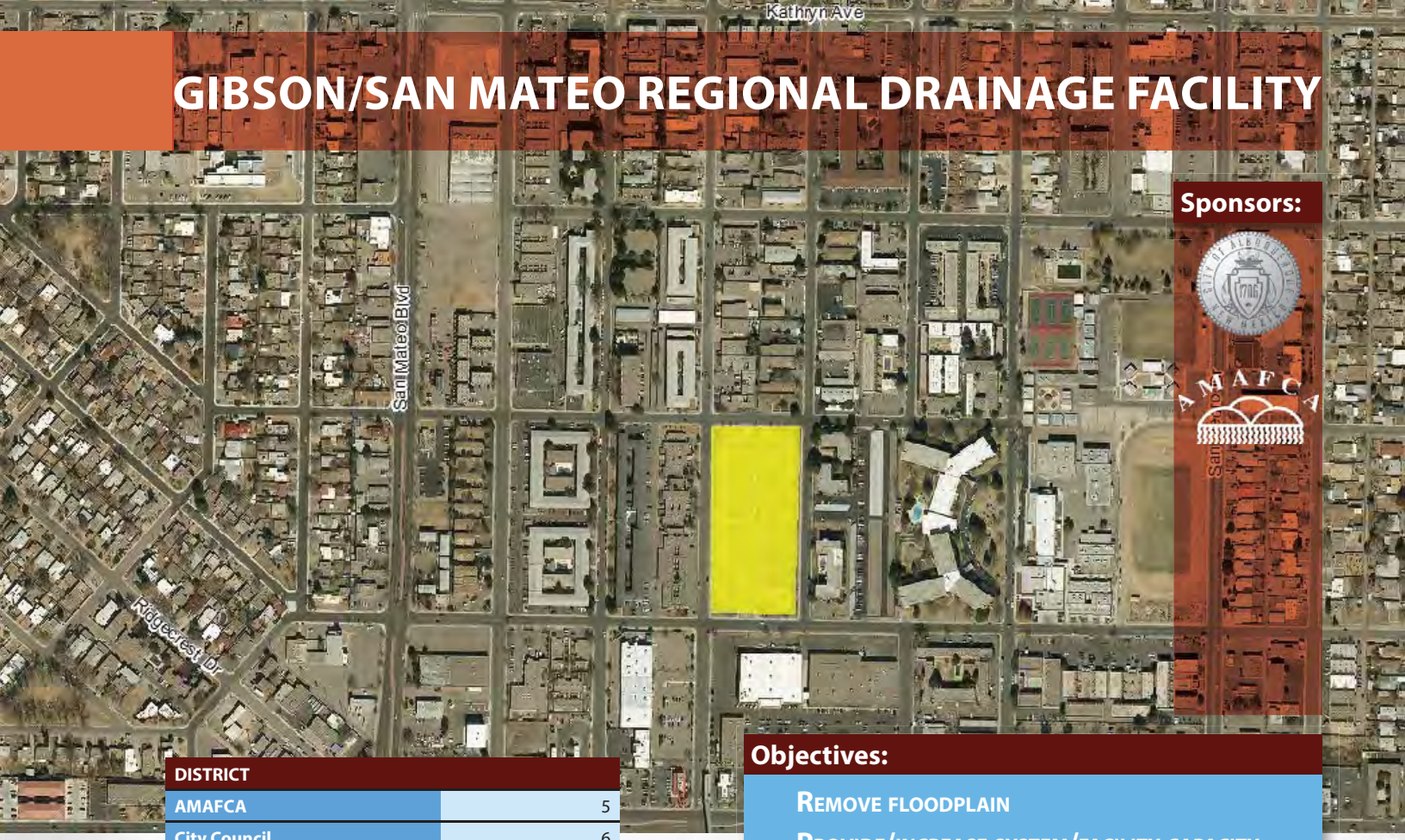
Description:

A comprehensive study of the upland watershed and storm drain network capacity in a residential neighborhood near the San Mateo/Gibson intersection in southeast Albuquerque is needed to determine the existing floodplain. The current available floodplain analysis may not be accurate due to development downstream of and within the affected neighborhood, and upstream on Kirtland Air Force Base. This study will determine locations of floodplain and drainage issues and provide data for the development of future projects to address these problems.

Stakeholders:

CoA, AMAFCA, KAFB

GIBSON/SAN MATEO REGIONAL DRAINAGE FACILITY



Sponsors:

DISTRICT	
AMAFCA	5
City Council	6
County Commission	3
NM Senate	17
NM House	19

Potential AMAFCA Funding: $600,000

2018	2019	2020	2021	2022	2023
$600,000					

Stakeholders:

CoA, AMAFCA

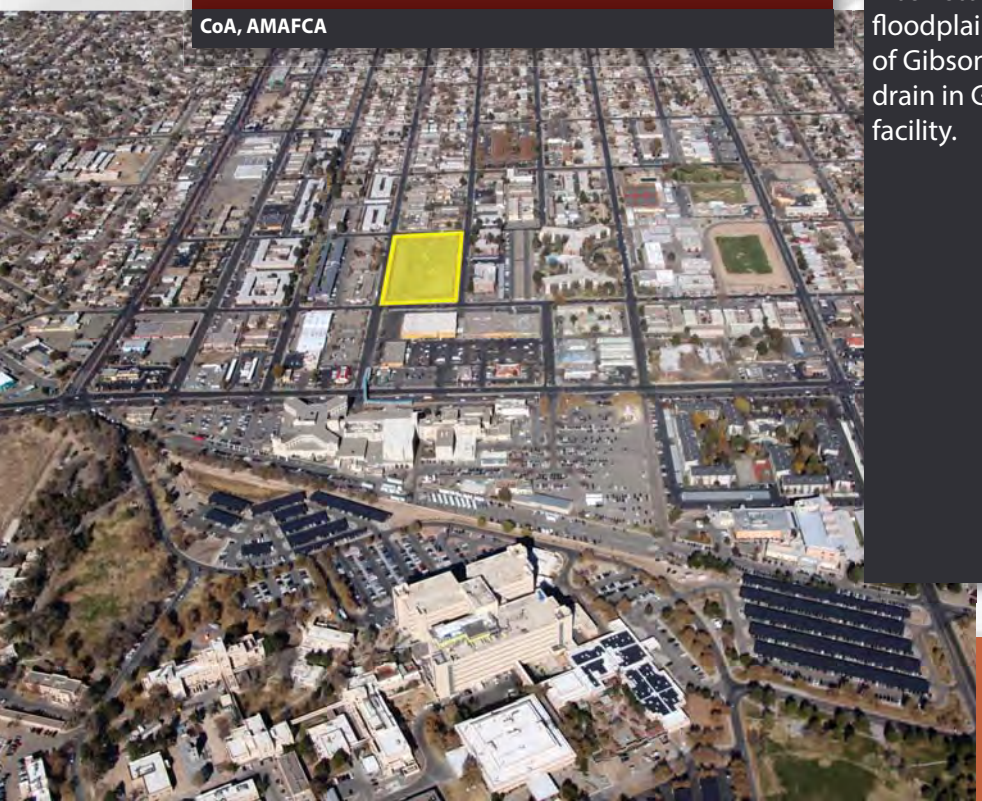
Objectives:

- Remove floodplain
- Provide/increase system/facility capacity

Total Cost: $1,200,000.00

Description:

A 30 acre-foot detention pond near Eastern and Alvarado will relieve the surcharging of the Campus Wash storm drain system and allow for the removal of floodplain between San Mateo and San Pedro, north of Gibson. The project will include additional storm drain in Gibson to convey runoff to the drainage facility.



GLENDALE STORM DRAIN

Sponsors:

Objectives:

- Remove floodplain
- Reduce drainage/flooding issues
- Provide/increase system/facility capacity

Total Cost: $2,377,000

DISTRICT	
AMAFCA	4
City Council	4
County Commission	4
NM Senate	21
NM House	31

Potential AMAFCA Funding: $2,377,000

2018	2019	2020	2021	2022	2023
$150,000	$2,227,000				

Description:

The storm drain will be constructed in Glendale Avenue from the proposed Hamilton Dam near Eubank Boulevard to the El Camino sediment pond near Barstow Street. The storm drain will provide flooding relief for approximately 200 properties along Glendale Avenue and allow for the removal of floodplain on those properties.

Stakeholders:

AMAFCA, BernCo, CoA

GLENRIO STORM DRAIN FEASIBILITY STUDY

Sponsors:

DISTRICT	
AMAFCA	1
City Council	1
County Commission	1
NM Senate	26
NM House	16

Objectives:

- Reduce drainage/flooding issues
- Provide/increase system/facility capacity
- Remove floodplain

Total Cost: $450,000

Potential AMAFCA Funding: $100,000

2018	2019	2020	2021	2022	2023
				$100,000	

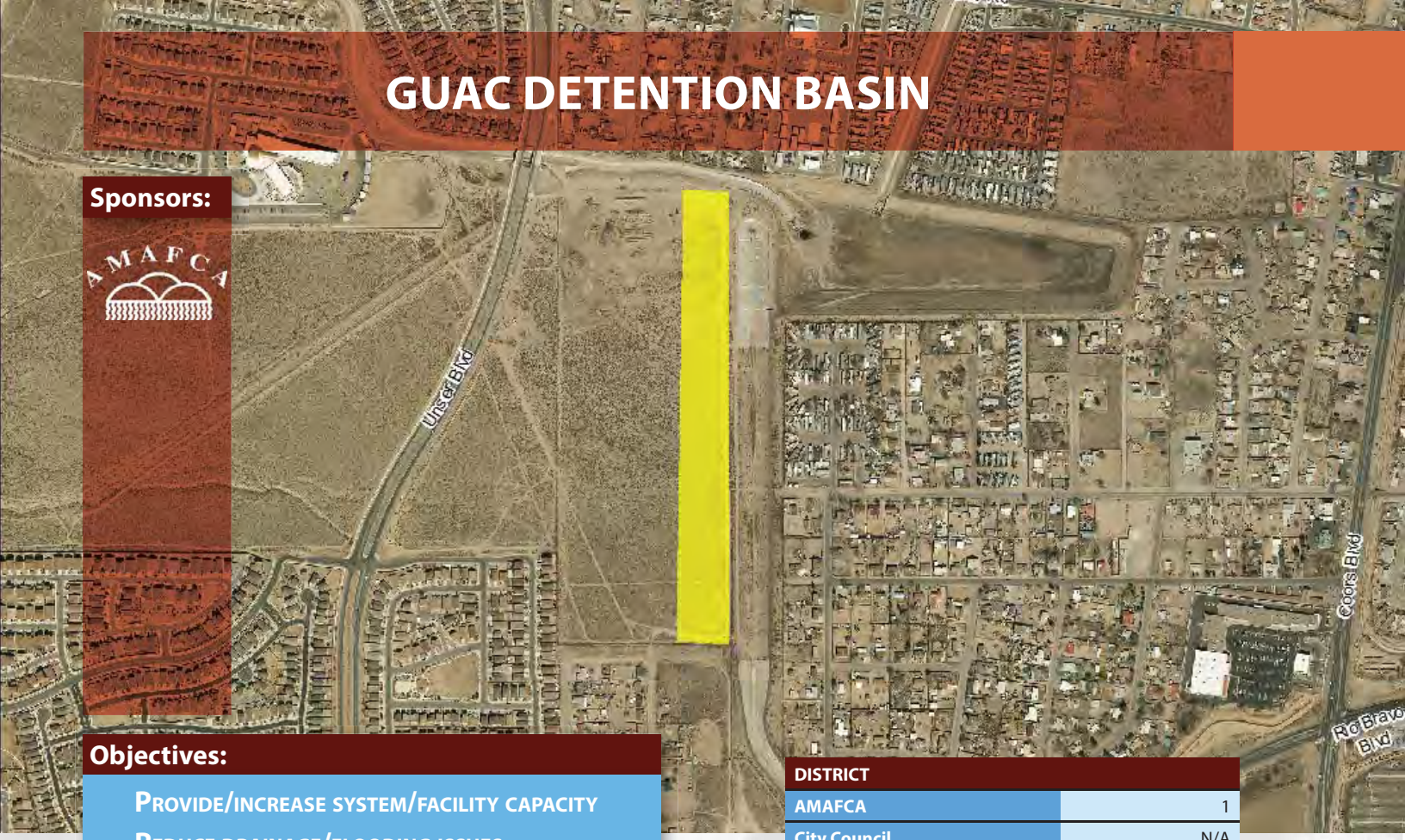
Description:

A feasibility study of the Glenrio Storm Drain is needed to determine the benefits, impacts, and costs of installing a new storm drain in this area. The study will evaluate the possibility of removing 100 properties from the existing floodplain. The current storm drain in Glenrio is undersized and hydraulically inefficient. This neighborhood was built in the early part of the 20th century and included drainage facilities that are inadequate today. Replacing the existing storm drain with a larger pipe or parallel pipe using an alternate corridor will be necessary due to existing residential properties between Atrisco and the Rio Grande. Alternative analysis may determine if a ponding facility in the John Adams Middle School playing field is an appropriate option to remove flooding issues, pending a cooperative project with APS.

Stakeholders:

AMAFCA, CoA, BernCo

GUAC DETENTION BASIN



Sponsors:

AMAFCA

Objectives:

- Provide/increase system/facility capacity
- Reduce drainage/flooding issues
- Provide/enhance facility maintenance

Total Cost: $808,000

DISTRICT	
AMAFCA	1
City Council	N/A
County Commission	2
NM Senate	14
NM House	12

Potential AMAFCA Funding: $808,000

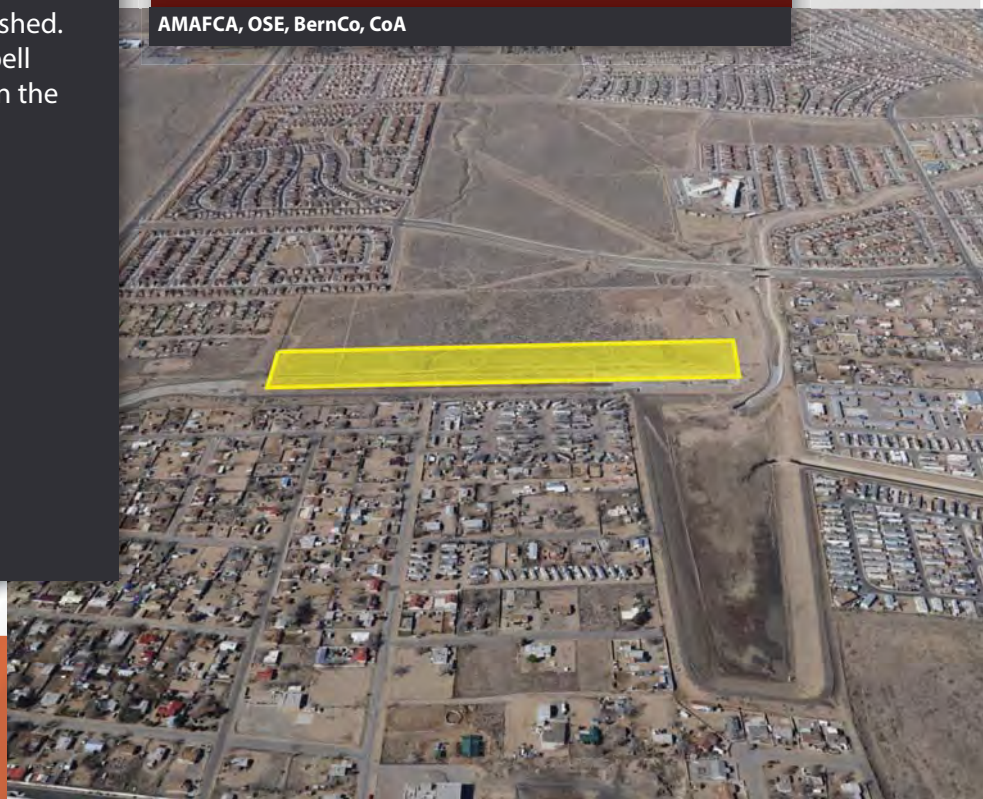
2018	2019	2020	2021	2022	2023
$600,000	$208,000				

Description:

The Guac Basin will be built to work in concert with its sister basin, the Amole Dam. 800 acre-feet of additional storage is required to fully control runoff from approximately 20 square miles of watershed. Modifications to the Amole Arroyo, the Hubbell Channel and the Hubbell Dam are included in the project.

Stakeholders:

AMAFCA, OSE, BernCo, CoA



HAMILTON DAM

Sponsors:

AMAFCA

DISTRICT	
AMAFCA	4
City Council	N/A
County Commission	4
NM Senate	21
NM House	31

Potential AMAFCA Funding: $7,256,000

2018	2019	2020	2021	2022	2023
$100,000	$906,000	$2,025,000	$1,820,000	$2,405,000	

Stakeholders:

AMAFCA, BernCo, OSE

Objectives:

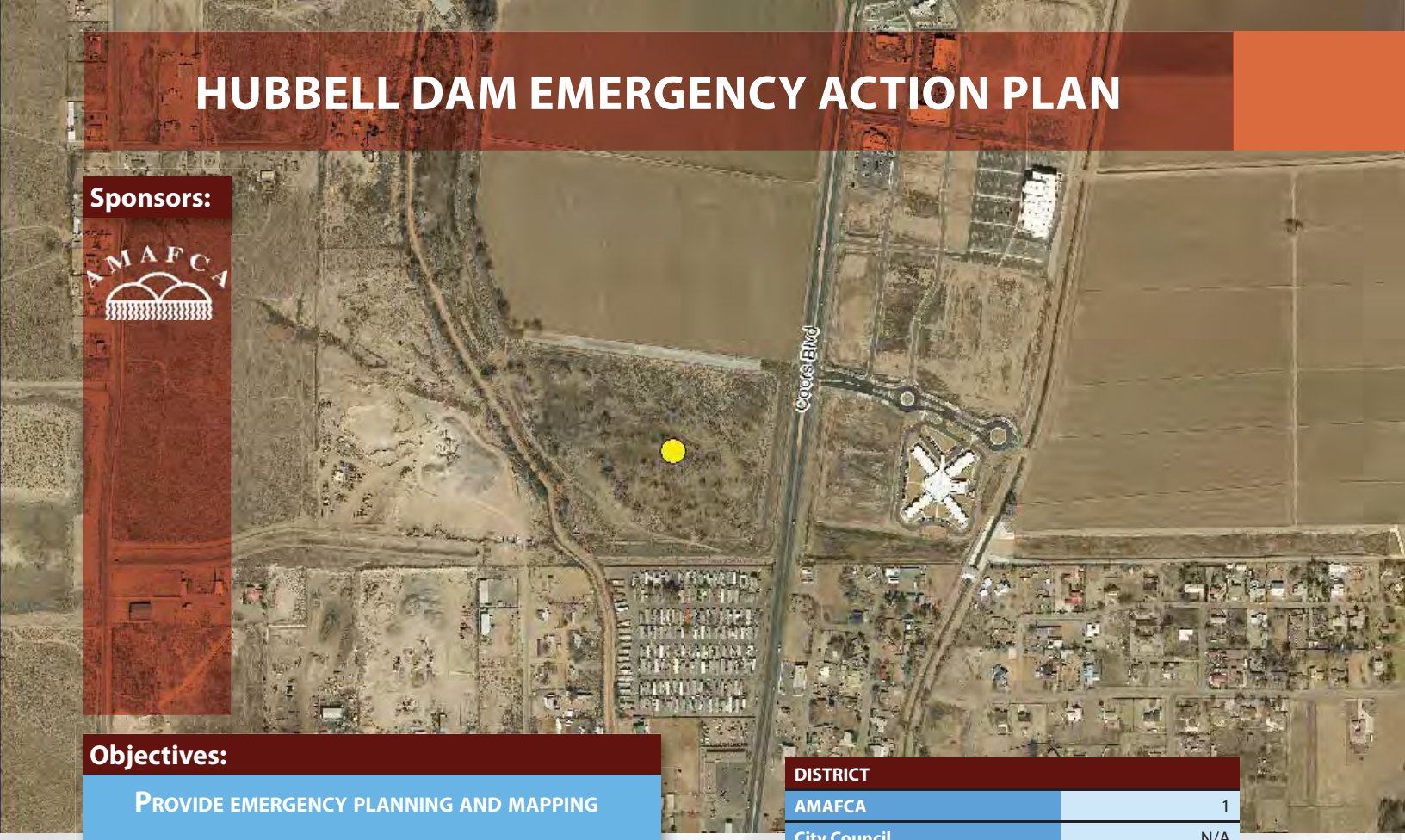
- Provide/increase system/facility capacity
- Reduce drainage/flooding issues

Total Cost: $7,256,000

Description:

Hamilton Dam, situated between Glendale and Florence Avenues on the El Camino Arroyo, will control flows in the arroyo downstream in order to maintain and protect existing drainage facilities and private properties. Hamilton Dam will be designed to release flow rates at or below rates provided in the North Albuquerque Acres Drainage Management Plan. The 36 foot high dam will detain a minimum of 104 acre-feet of stormwater and sediment, which will lower peak flows in the arroyo and allow for the reduction of floodplain downstream.

HUBBELL DAM EMERGENCY ACTION PLAN



Sponsors:

AMAFCA

Objectives:

PROVIDE EMERGENCY PLANNING AND MAPPING

Total Cost: $50,000

DISTRICT	
AMAFCA	1
City Council	N/A
County Commission	2
NM Senate	14
NM House	12

Potential AMAFCA Funding: $50,000

2018	2019	2020	2021	2022	2023
$50,000					

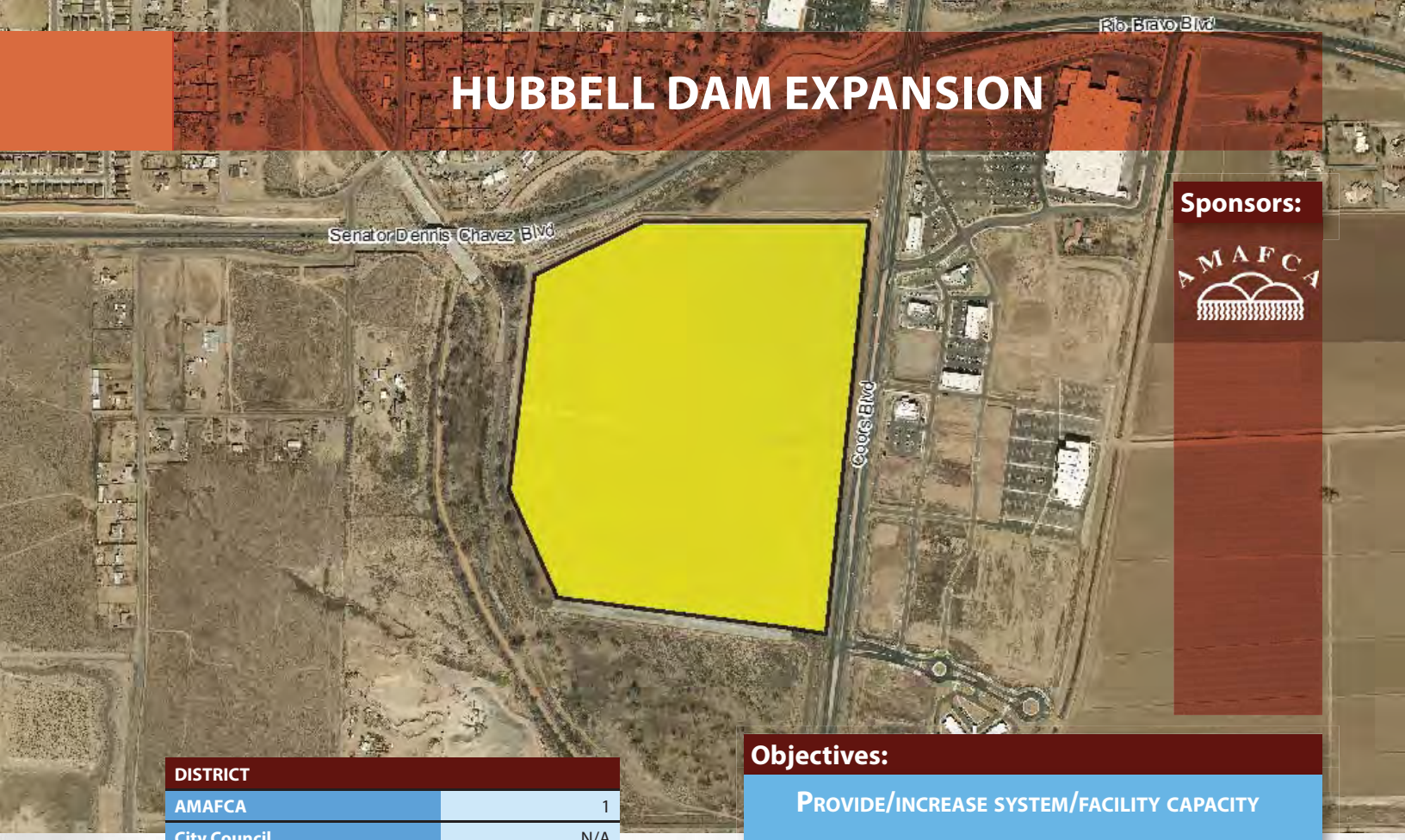
Description:

An Emergency Action Plan (EAP) is a formal plan required by the Office of the State Engineer Bureau of Dam Safety that identifies potential emergency conditions at a dam and outlines the procedures to follow to minimize property damage and loss of life. This project will include the development and preparation of an EAP and inundation maps for the Hubbell Dam. The EAP will contain procedures to be followed during an emergency, such as structural problems, equipment malfunctions, or natural events such as floods or earthquakes that could approach or exceed the dam design limits. Inundation mapping will outline the evacuation boundaries for the community on a map in the event of a dam failure.

Stakeholders:

Emergency Responders, OSE, AMAFCA

HUBBELL DAM EXPANSION



Sponsors:

AMAFCA

DISTRICT	
AMAFCA	1
City Council	N/A
County Commission	2
NM Senate	14
NM House	10

Potential AMAFCA Funding: $1,056,000

2018	2019	2020	2021	2022	2023
$156,000	$900,000				

Stakeholders:

OSE, AMAFCA, CoA, BernCo

Objectives:

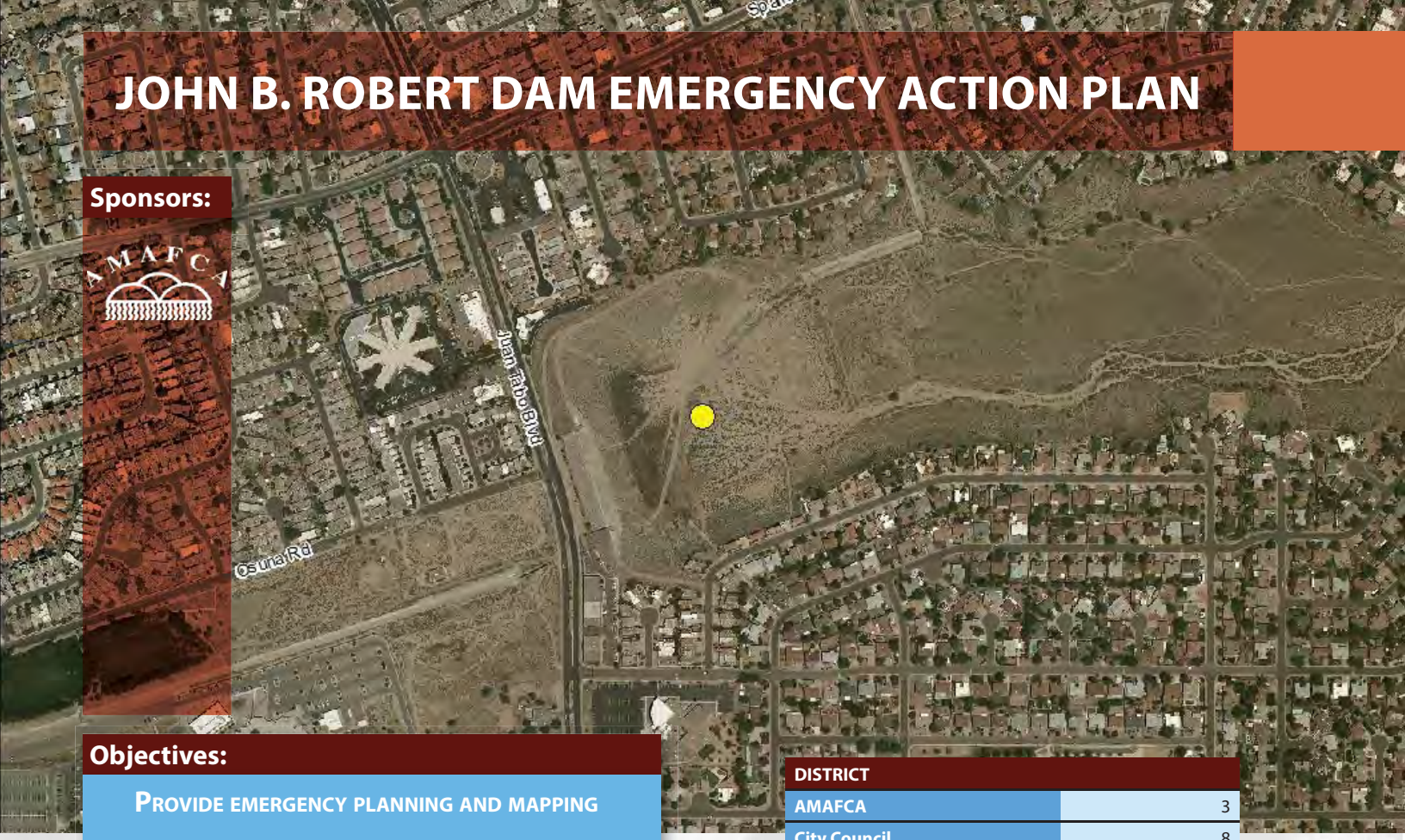
PROVIDE/INCREASE SYSTEM/FACILITY CAPACITY

Total Cost: $1,056,000

Description:

The Hubbell Dam will be expanded by constructing an embankment around the perimeter of the agricultural field north of the existing facility. The agricultural use of the field will continue to be utilized. This will provide the needed stormwater detention capacity in the Amole/Hubbell Dam system facilities.

JOHN B. ROBERT DAM EMERGENCY ACTION PLAN



Sponsors:

AMAFCA

Objectives:

PROVIDE EMERGENCY PLANNING AND MAPPING

Total Cost: $50,000

DISTRICT	
AMAFCA	3
City Council	8
County Commission	5
NM Senate	18
NM House	27, 31

Potential AMAFCA Funding: $50,000

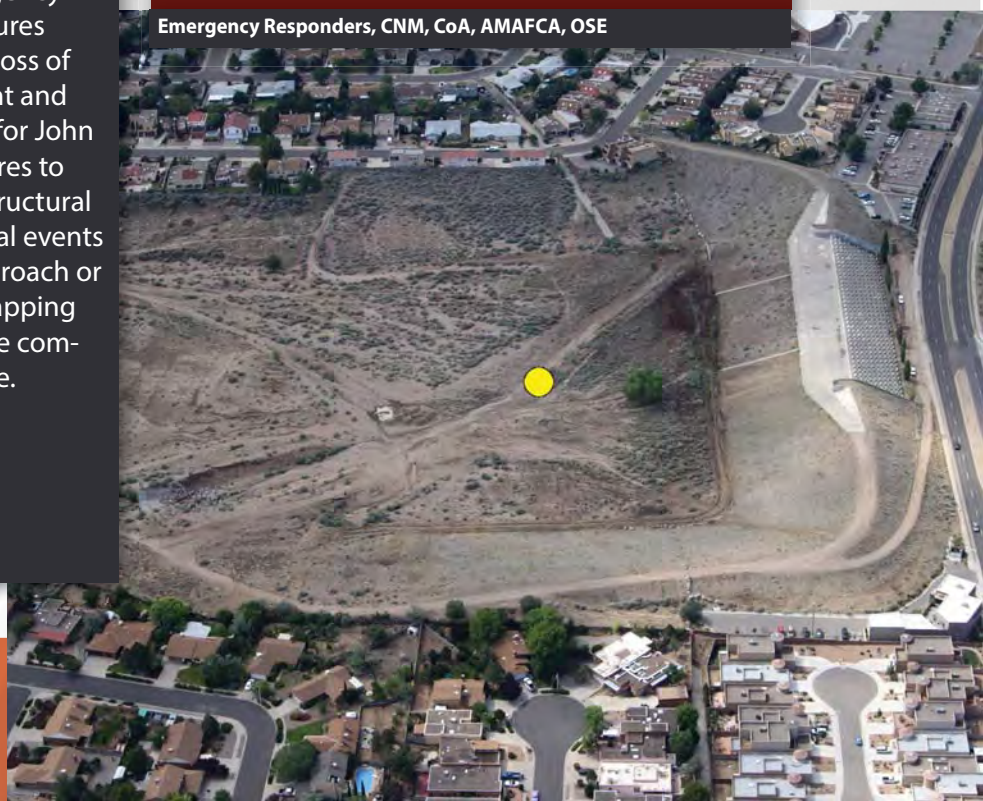
2018	2019	2020	2021	2022	2023
$50,000					

Description:

An Emergency Action Plan (EAP) is a formal plan required by the Office of the State Engineer Bureau of Dam Safety that identifies potential emergency conditions at a dam and outlines the procedures to follow to minimize property damage and loss of life. This project will include the development and preparation of an EAP and inundation maps for John B. Robert Dam. The EAP will contain procedures to be followed during an emergency, such as structural problems, equipment malfunctions, or natural events such as floods or earthquakes that could approach or exceed the dam design limits. Inundation mapping will outline the evacuation boundaries for the community on a map in the event of a dam failure.

Stakeholders:

Emergency Responders, CNM, CoA, AMAFCA, OSE



KARSTEN AREA RESTUDY

Sponsors:

DISTRICT	
AMAFCA	1
City Council	2
County Commission	2
NM Senate	12
NM House	10

Objectives:

- Provide/increase system/facility capacity
- Reduce drainage/flooding issues

Total Cost: $100,000

Potential AMAFCA Funding: $100,000

2018	2019	2020	2021	2022	2023
$100,000					

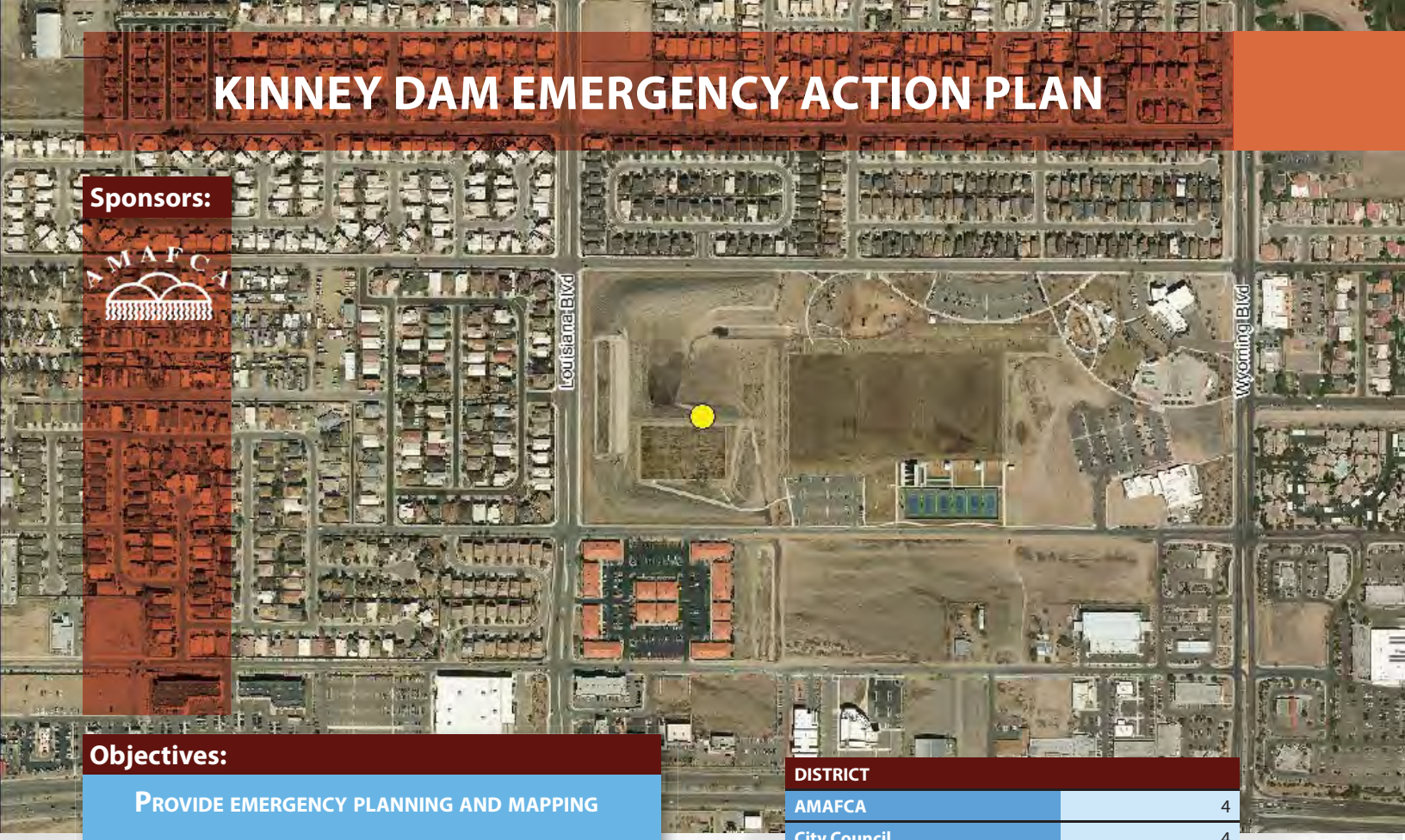
Description:

The Karsten Area Restudy will determine where flooding and drainage issues occur in the South Broadway area near Karsten road. The capacities of the current storm drains and drainage infrastructure will be analyzed to make recommendations for future facilities including those for water quality improvement.

Stakeholders:

CoA, AMAFCA

KINNEY DAM EMERGENCY ACTION PLAN



Sponsors:

AMAFCA

Objectives:

PROVIDE EMERGENCY PLANNING AND MAPPING

Total Cost: $50,000

DISTRICT	
AMAFCA	4
City Council	4
County Commission	4
NM Senate	21
NM House	15, 31

Potential AMAFCA Funding: $50,000

2018	2019	2020	2021	2022	2023
$50,000					

Description:

An Emergency Action Plan (EAP) is a formal plan required by the Office of the State Engineer Bureau of Dam Safety that identifies potential emergency conditions at a dam and outlines the procedures to follow to minimize property damage and loss of life. This project will include the development and preparation of an EAP and inundation maps for Kinney Dam. The EAP will contain procedures to be followed during an emergency, such as structural problems, equipment malfunctions, or natural events such as floods or earthquakes that could approach or exceed the dam design limits. Inundation mapping will outline the evacuation boundaries for the community on a map in the event of a dam failure.

Stakeholders:

AMAFCA, Emergency Responders, OSE

LADERA DAMS 10,12,14,15 EMERGENCY ACTION PLAN

Sponsors:

DISTRICT	
AMAFCA	2
City Council	1
County Commission	1
NM Senate	26
NM House	16

Potential AMAFCA Funding: $250,000

2018	2019	2020	2021	2022	2023
	$250,000				

Stakeholders:

AMAFCA, CoA, OSE

Objectives:

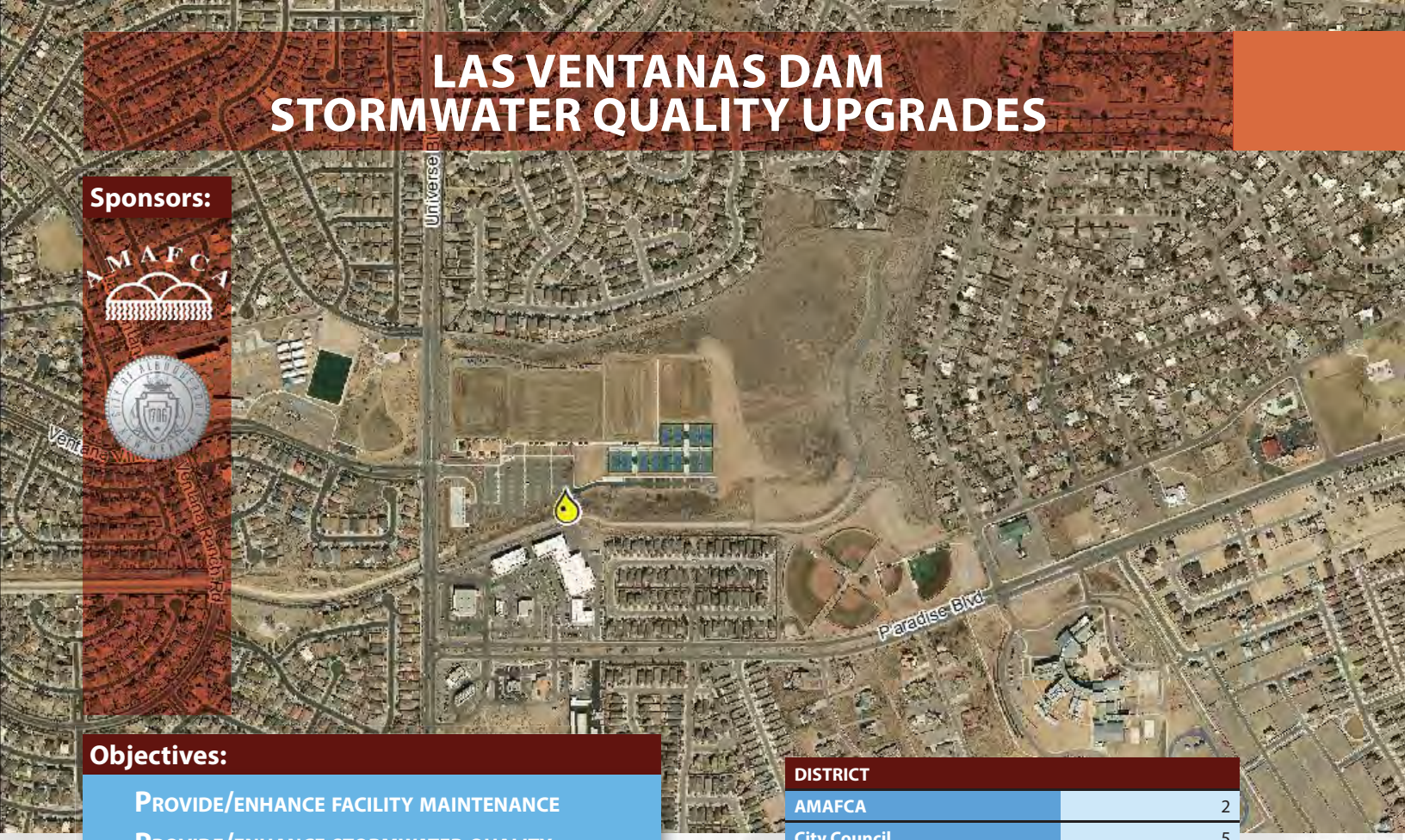
PROVIDE EMERGENCY PLANNING AND MAPPING

Total Cost: $250,000

Description:

An Emergency Action Plan (EAP) is a formal plan required by the Office of the State Engineer Bureau of Dam Safety that identifies potential emergency conditions at a dam and outlines the procedures to follow to minimize property damage and loss of life. This project will include the development and preparation of an EAP and inundation maps for Ladera Dams 10, 12, 14, and 15. The EAP will contain procedures to be followed during an emergency, such as structural problems, equipment malfunctions, or natural events such as floods or earthquakes that could approach or exceed the dam design limits. Inundation mapping will outline the evacuation boundaries for the community on a map in the event of a dam failure.

LAS VENTANAS DAM STORMWATER QUALITY UPGRADES



Sponsors:

Objectives:

- Provide/enhance facility maintenance
- Provide/enhance stormwater quality

Total Cost: $425,000

DISTRICT	
AMAFCA	2
City Council	5
County Commission	4
NM Senate	23
NM House	29

Potential AMAFCA Funding: $425,000

2018	2019	2020	2021	2022	2023
$100,000	$325,000				

Description:

The upgrades for this project will incorporate Best Management Practices to enhance stormwater quality for flows entering the Las Ventanas Dam, improving the quality of stormwater released to the river and providing compliance with the EPA MS4 permit. This project will reduce maintenance costs by concentrating trash and debris at prescribed locations. Two channel inlets and three storm drain inlets will be retrofitted with debris fences to capture floatables and debris

Stakeholders:

AMAFCA, CoA, OSE

LOWER BEAR TRIBUTARY STORMWATER QUALITY FACILITY

Sponsors:

DISTRICT	
AMAFCA	3
City Council	4
County Commission	4
NM Senate	15
NM House	27

Potential AMAFCA Funding: $200,000

2018	2019	2020	2021	2022	2023
$200,000					

Stakeholders:

AMAFCA, EPA, CoA

Objectives:

- Provide/increase system/facility capacity
- Provide/enhance facility maintenance

Total Cost: $400,000

Description:

Regional flood control and stormwater quality improvements on the Lower Bear Tributary will increase the efficiency of the storm drainage system in the Bear Arroyo Watershed by providing a series of regional Best Management Practice structures to collect debris, reduce peak runoff flows and enhance stormwater quality before discharging into the North Diversion Channel and ultimately into the Rio Grande. A secondary water quality benefit will be for the aquifer storage and recovery project given the proximity to the Bear Arroyo direct injection site.

MARBLE/ARNO POND & PUMP STATION

Sponsors:

Objectives:

- Provide/increase system/facility capacity
- Reduce drainage/flooding issues

Total Cost: $12,000,000

DISTRICT	
AMAFCA	1
City Council	2
County Commission	1
NM Senate	12
NM House	11

Potential AMAFCA Funding: $6,000,000

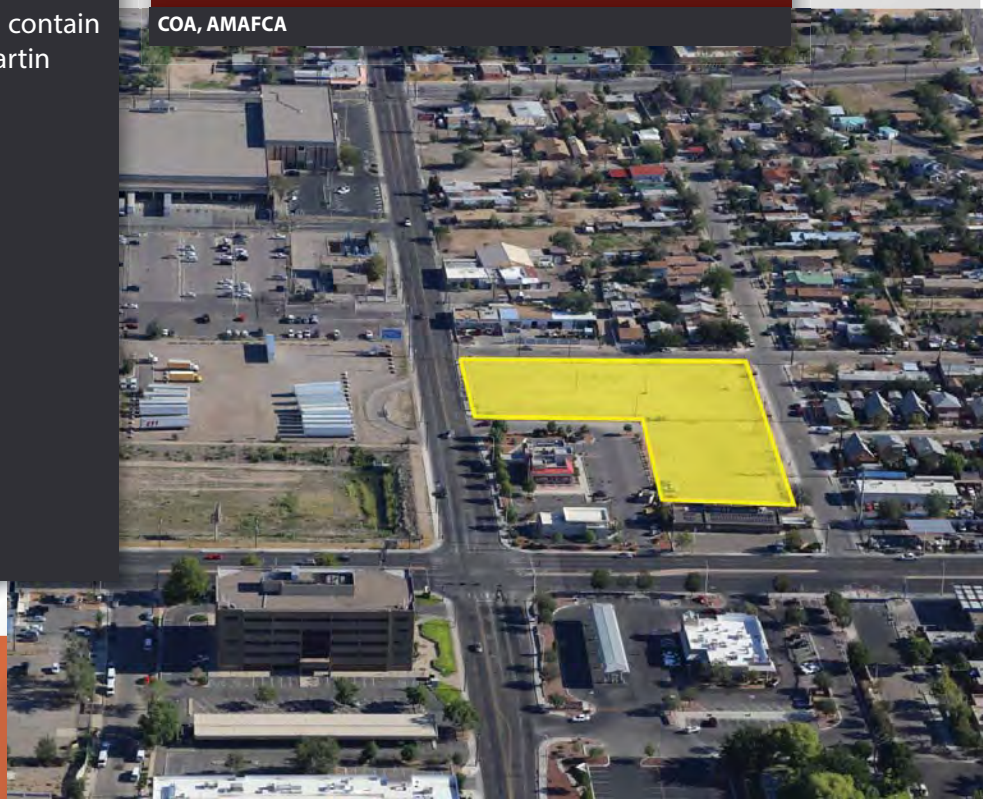
2018	2019	2020	2021	2022	2023
$6,000,000					

Description:

The Marble/Arno Pond and Pump Station will provide the needed stormwater storage and pumping capacity to replace the antiquated Broadway Pump Station and Lomas/Broadway Pond. The wet well will contain 30 acre-feet and handle flows from I-40 to Martin Luther King Blvd.

Stakeholders:

COA, AMAFCA



MAX'S INLET STORMWATER QUALITY UPGRADE

Sponsors:

DISTRICT	
AMAFCA	1
City Council	N/A
County Commission	2
NM Senate	14
NM House	10

Potential AMAFCA Funding: $745,000

2018	2019	2020	2021	2022	2023
					$745,000

Stakeholders:

AMAFCA

Objectives:

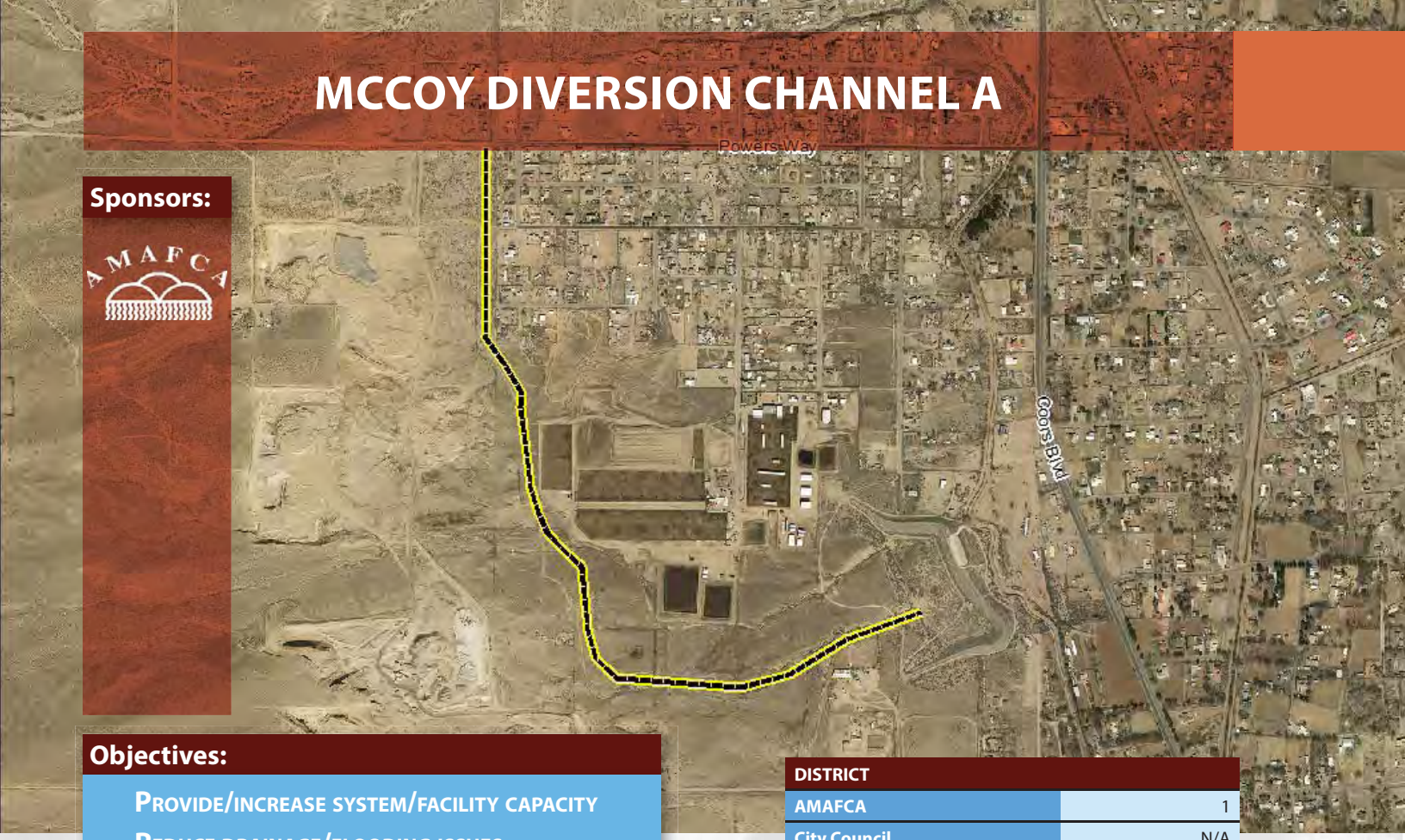
- Provide/enhance stormwater quality
- Provide/enhance facility maintenance

Total Cost: $745,000

Description:

This inlet into the South Diversion Channel receives a large quantity of sediment from the upland watershed. A sediment control facility will reduce maintenance and control floatables before it goes into the Channel and, ultimately, the Rio Grande.

MCCOY DIVERSION CHANNEL A



Sponsors:

AMAFCA

Objectives:

- Provide/increase system/facility capacity
- Reduce drainage/flooding issues
- Remove floodplain

Total Cost: $4,053,000

DISTRICT	
AMAFCA	1
City Council	N/A
County Commission	2
NM Senate	14
NM House	26

Potential AMAFCA Funding: $4,053,000

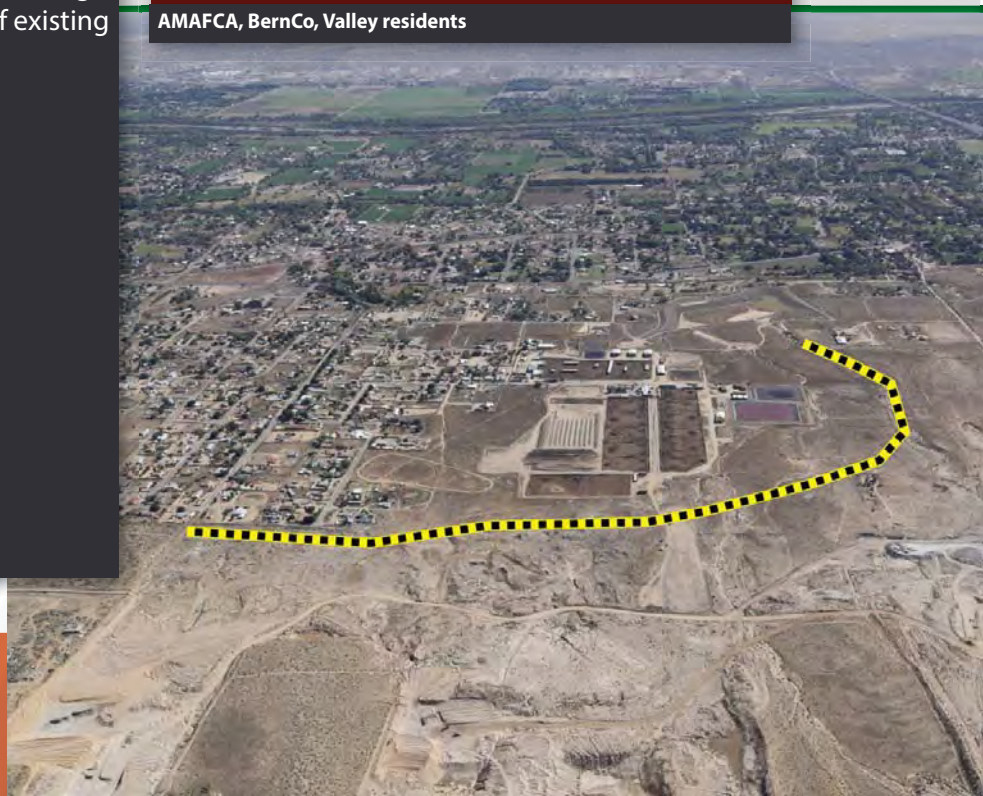
2018	2019	2020	2021	2022	2023
		$250,000	$3,803,000		

Description:

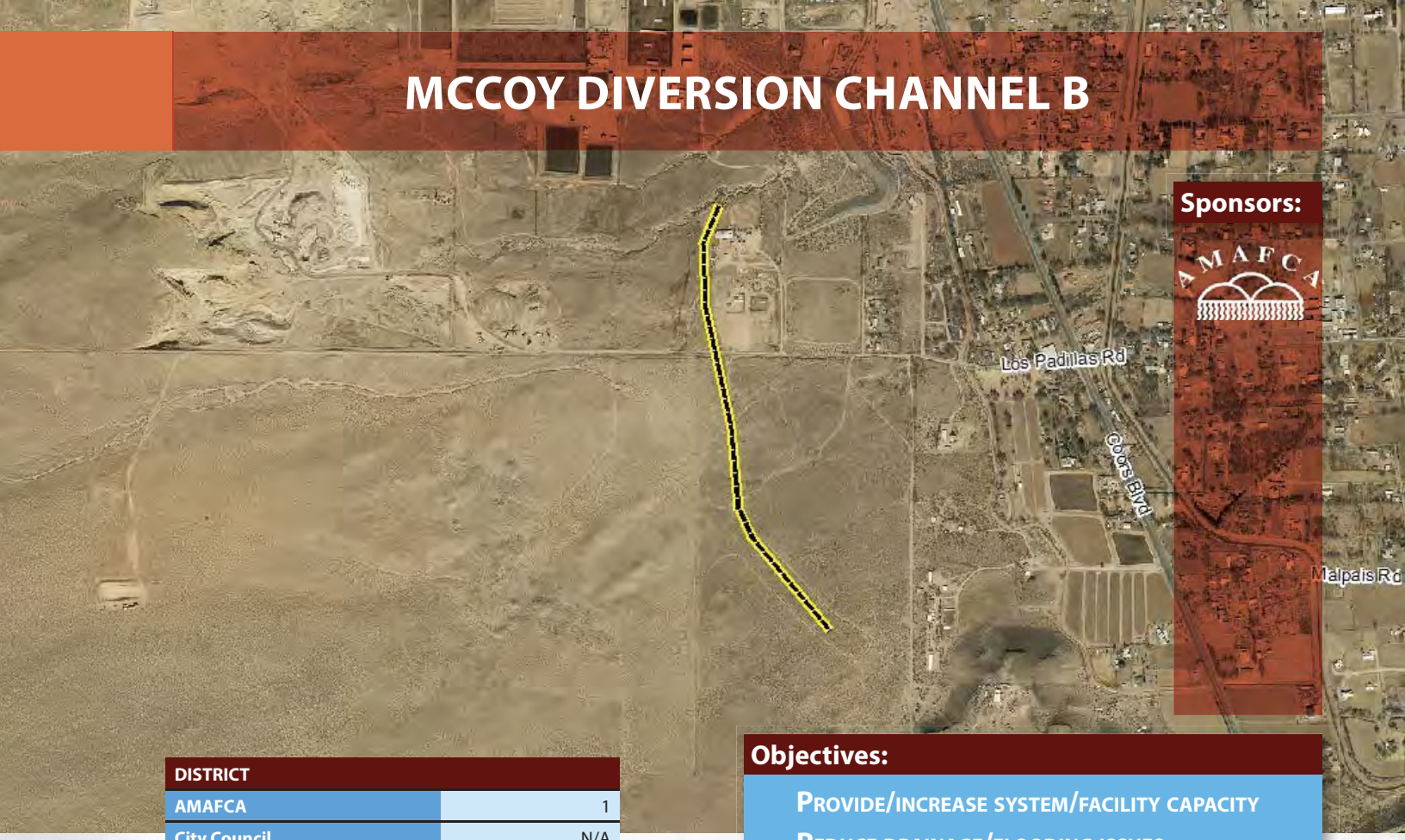
The project will construct diversion channels to collect flows from north and south of the dam to prevent those flows from bypassing the dam and inundating the valley floor. It will allow for the removal of existing residential areas from FEMA floodplains.

Stakeholders:

AMAFCA, BernCo, Valley residents



MCCOY DIVERSION CHANNEL B



Sponsors:

AMAFCA

DISTRICT	
AMAFCA	1
City Council	N/A
County Commission	2
NM Senate	14
NM House	10, 26

Potential AMAFCA Funding: $2,372,000

2018	2019	2020	2021	2022	2023
		$150,000	$2,222,000		

Stakeholders:

AMAFCA, BernCo, Valley residents

Objectives:

- Provide/increase system/facility capacity
- Reduce drainage/flooding issues
- Remove floodplain

Total Cost: $2,372,000

Description:

The project will construct diversion channels to collect flows from north and south of the dam to prevent flows from bypassing the dam and inundating the valley floor. It will allow for the removal of existing residential areas from FEMA floodplains.

MCEWEN POND GI/LID IMPROVEMENTS

Sponsors:

Objectives:

PROVIDE/ENHANCE STORMWATER QUALITY

Total Cost: $100,000

DISTRICT	
AMAFCA	1
City Council	N/A
County Commission	2
NM Senate	11
NM House	12

Potential AMAFCA Funding: $25,000

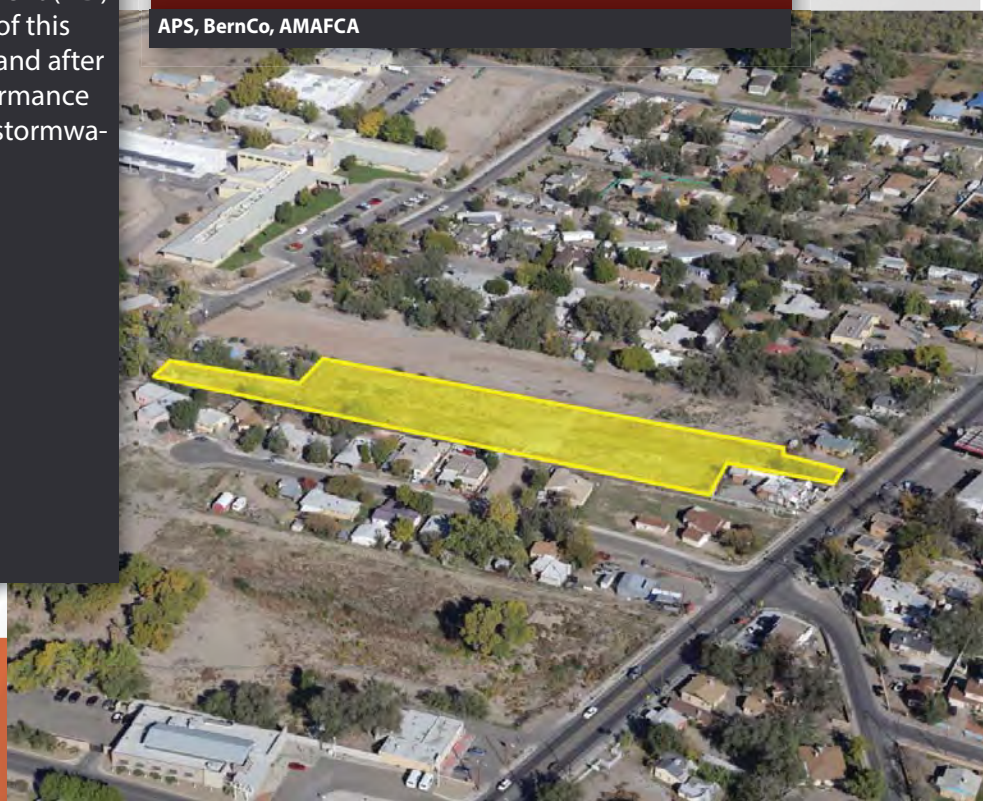
2018	2019	2020	2021	2022	2023
$25,000					

Description:

United States Geological Survey will monitor stormwater quality pre- and post-installation of Green Infrastructure (GI) and Low Impact Development (LID) structural features in the pond. The purpose of this pilot project is to sample stormwater before and after processing in the pond to evaluate the performance of GI best management practices relative to stormwater quality.

Stakeholders:

APS, BernCo, AMAFCA



MISCELLANEOUS CONSTRUCTION PROJECTS

Sponsors:

AMAFCA

DISTRICT	
AMAFCA	1-5
City Council	1-9
County Commission	1-5
NM Senate	9-21, 23, 26, 29
NM House	10-31, 68, 69

Potential AMAFCA Funding: $2,400,000

2018	2019	2020	2021	2022	2023
$400,000	$400,000	$400,000	$400,000	$400,000	$400,000

Stakeholders:

AMAFCA

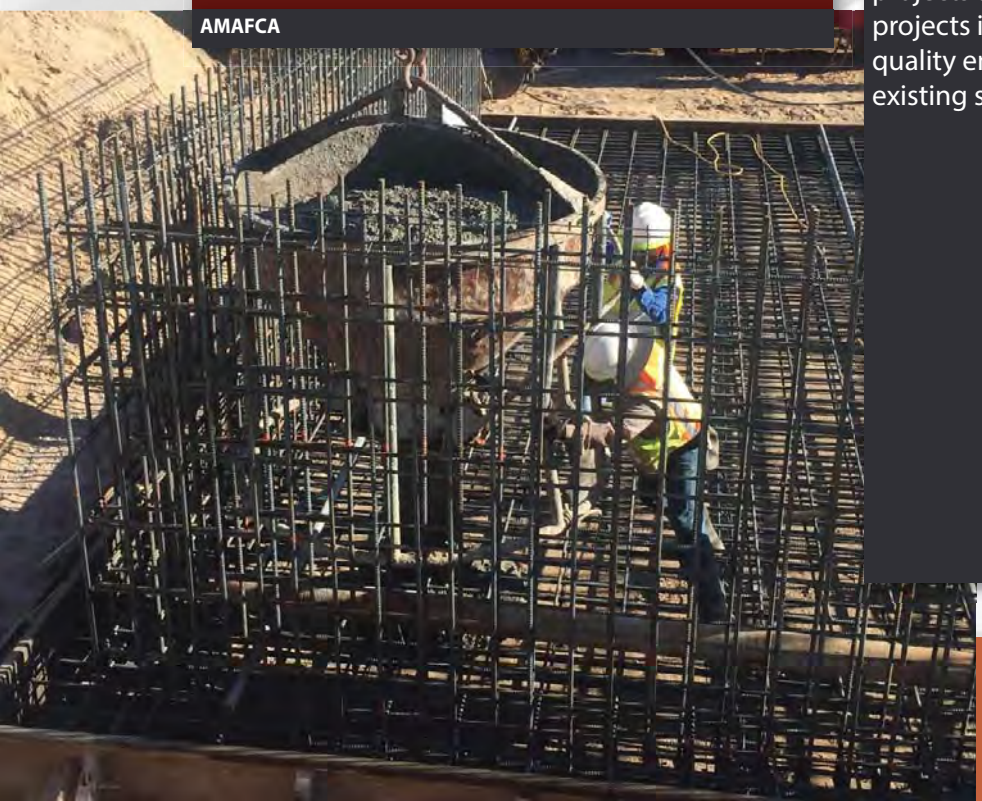
Objectives:

- Provide/enhance facility maintenance
- Provide/increase system/facility capacity
- Provide/enhance stormwater quality

Total Cost: $2,400,000

Description:

Small projects throughout the AMAFCA jurisdiction that are too small to be bid by themselves. These projects are combined for better pricing. Typical projects include access control, small stormwater quality enhancements, as well as enhancements to existing structures.



MISCELLANEOUS REAL ESTATE ACQUISITION

Sponsors:

AMAFCA

Objectives:

- Remove floodplain
- Reduce drainage/flooding issues
- Provide/increase system/facility capacity

Total Cost: $1,000,000

DISTRICT	
AMAFCA	1-5
City Council	1-9
County Commission	1-5
NM Senate	9-21, 23, 26, 29
NM House	10-31, 68, 69

Potential AMAFCA Funding: $1,000,000

2018	2019	2020	2021	2022	2023
$500,000	$250,000	$250,000			

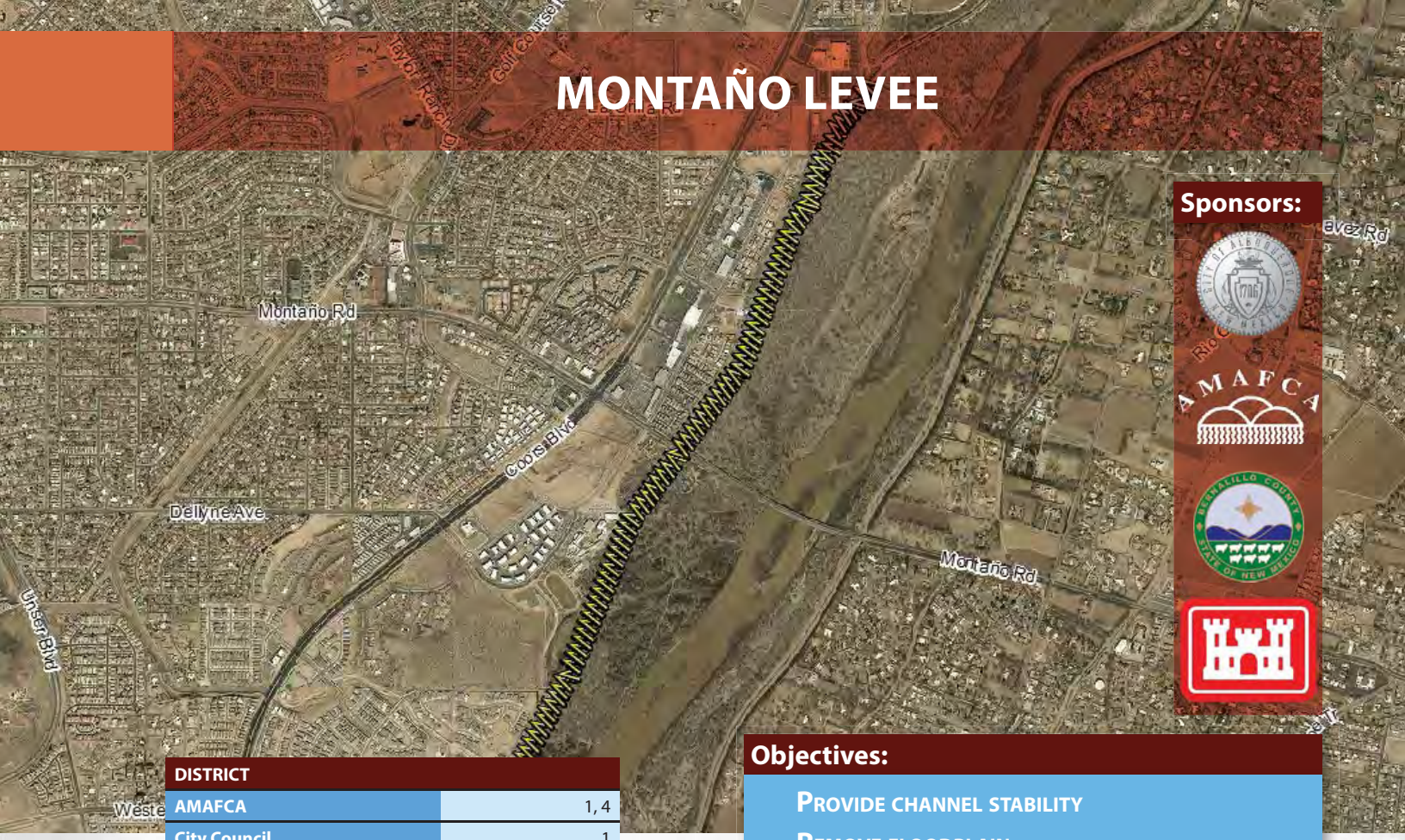
Description:

Real estate acquisition is the first step when building new projects. After completion of a drainage management plan, the area is evaluated for potential sites for the projects identified in the document. Market conditions, site constraints, and availability are considered when developing a plan for real estate acquisitions.

Stakeholders:

AMAFCA

MONTAÑO LEVEE



Sponsors:

DISTRICT	
AMAFCA	1, 4
City Council	1
County Commission	1
NM Senate	10
NM House	15, 16

Potential AMAFCA Funding: $1,000,000

2018	2019	2020	2021	2022	2023
$1,000,000					

Stakeholders:

AMAFCA, MRGCD, CoE, CoA, BernCo, Bosque Prep School, Area Residents

Objectives:

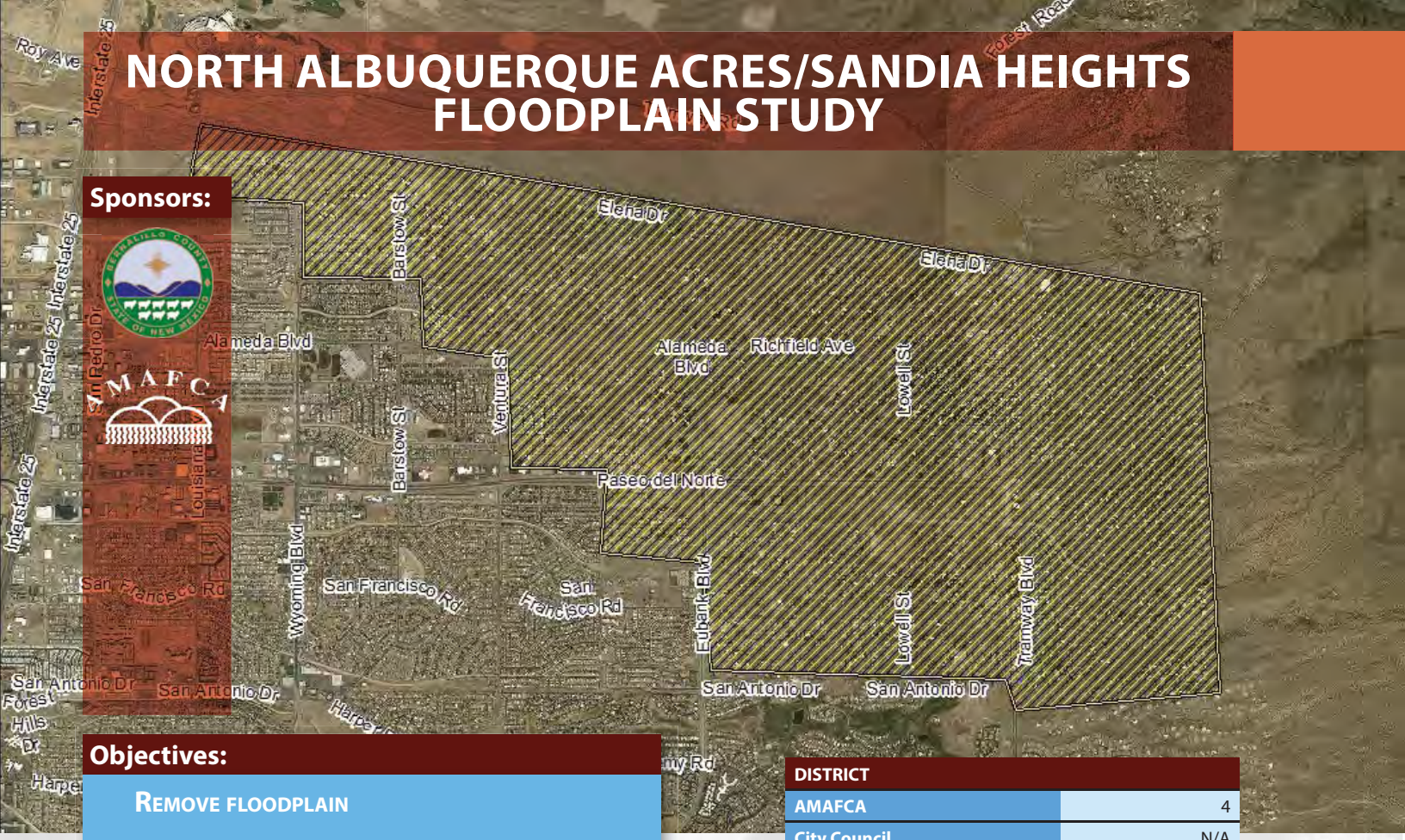
- Provide channel stability
- Remove floodplain
- Provide/enhance bank protection

Total Cost: $5,141,000

Description:

The installation of approximately three miles of riverside levee on the west side of the Rio Grande, from La Orilla to the Oxbow, will complete the levee system that keeps the river within the prescribed floodway. The construction of the levee will eliminate the potential that FEMA would place hundreds of acres of developed properties in a floodplain. The levee will be a minimum of six feet tall and twelve feet wide at the top, with 3:1 slopes on both the river and land sides, and will include toe drains.

NORTH ALBUQUERQUE ACRES/SANDIA HEIGHTS FLOODPLAIN STUDY



Sponsors:

AMAFCA

Objectives:

REMOVE FLOODPLAIN

Total Cost: $200,000

DISTRICT	
AMAFCA	4
City Council	N/A
County Commission	4
NM Senate	21
NM House	31

Potential AMAFCA Funding: $100,000

2018	2019	2020	2021	2022	2023
$100,000					

Description:

The North Albuquerque Acres/Sandia Heights Floodplain Study will reevaluate the floodplains delineated in the area. Advances in hydraulic modeling coupled with more accurate hydrologic data can provide a more accurate floodplain delineation. This revised floodplain will represent a more accurate model of reality and possibly release some restrictions on development.

Stakeholders:

BernCo, Local Residents

NORTH CAMINO ARROYO DRAINAGE MANAGEMENT PLAN

Sponsors:

DISTRICT	
AMAFCA	4
City Council	4
County Commission	4
NM Senate	13, 20, 21
NM House	15, 31

Potential AMAFCA Funding: $200,000

2018	2019	2020	2021	2022	2023
		$200,000			

Stakeholders:

AMAFCA, CoA, BernCo, Pueblo of Sandia

Objectives:

- Provide/increase system/facility capacity
- Reduce drainage/flooding issues
- Remove floodplain

Total Cost: $200,000

Description:

The Drainage Management and Stormwater Quality Plan for the North Camino Arroyo Watershed will identify drainage options for future development and the required drainage systems to protect downstream systems currently in place. To plan for the orderly development of the watershed and prioritize required infrastructure, a master plan is necessary to determine the available capacity of existing downstream infrastructure, provide a framework of proposed structures to complete the system, and set policy for adhering to AMAFCA's EPA MS4 Permit.

NORTH DIVERSION CHANNEL OUTFALL STORMWATER QUALITY FACILITY – DEBRIS FENCE

Sponsors:

AMAFCA

Objectives:

- Provide/enhance facility maintenance
- Provide/enhance stormwater quality

Total Cost: $1,037,000

DISTRICT	
AMAFCA	4
City Council	N/A
County Commission	4
NM Senate	9
NM House	15

Potential AMAFCA Funding: $1,037,000

2018	2019	2020	2021	2022	2023
$200,000	$837,000				

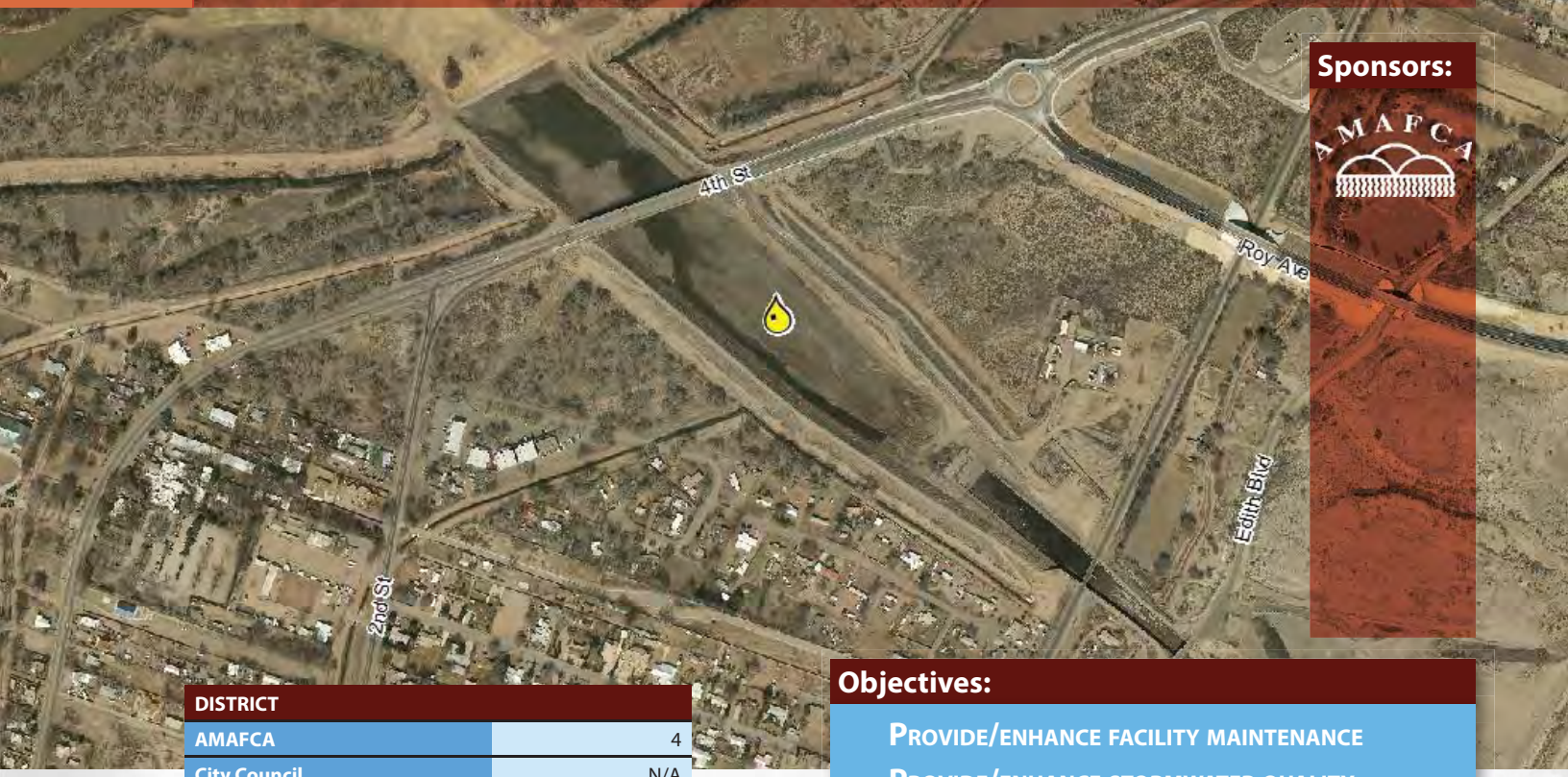
Description:

The North Diversion Channel (NDC) transports approximately one third of the urban metropolitan area runoff to the Rio Grande. The outfall to the Rio Grande is the last location within the NDC with an opportunity to remove floatables like debris and trash from stormwater before it can flow into the river. Constructing a series of low profile debris fences in the settling basin will improve the quality of stormwater by capturing trash and debris between the railroad bridge and the equipment crossing. The debris fence system will significantly reduce manual trash removal in the settling area and provide compliance with the EPA MS4 permit.

Stakeholders:

AMAFCA, CoE, ABCWUA, EPA, Pueblo of Sandia, Pueblo of Isleta

NORTH DIVERSION CHANNEL OUTFALL STORMWATER QUALITY FACILITY – FLOATING BOOM



Sponsors:

DISTRICT	
AMAFCA	4
City Council	N/A
County Commission	4
NM Senate	13
NM House	15

Potential AMAFCA Funding: $976,000

2018	2019	2020	2021	2022	2023
	$150,000	$826,000			

Stakeholders:

AMAFCA, CoE, ABCWUA, EPA, Pueblo of Sandia, Pueblo of Isleta

Objectives:

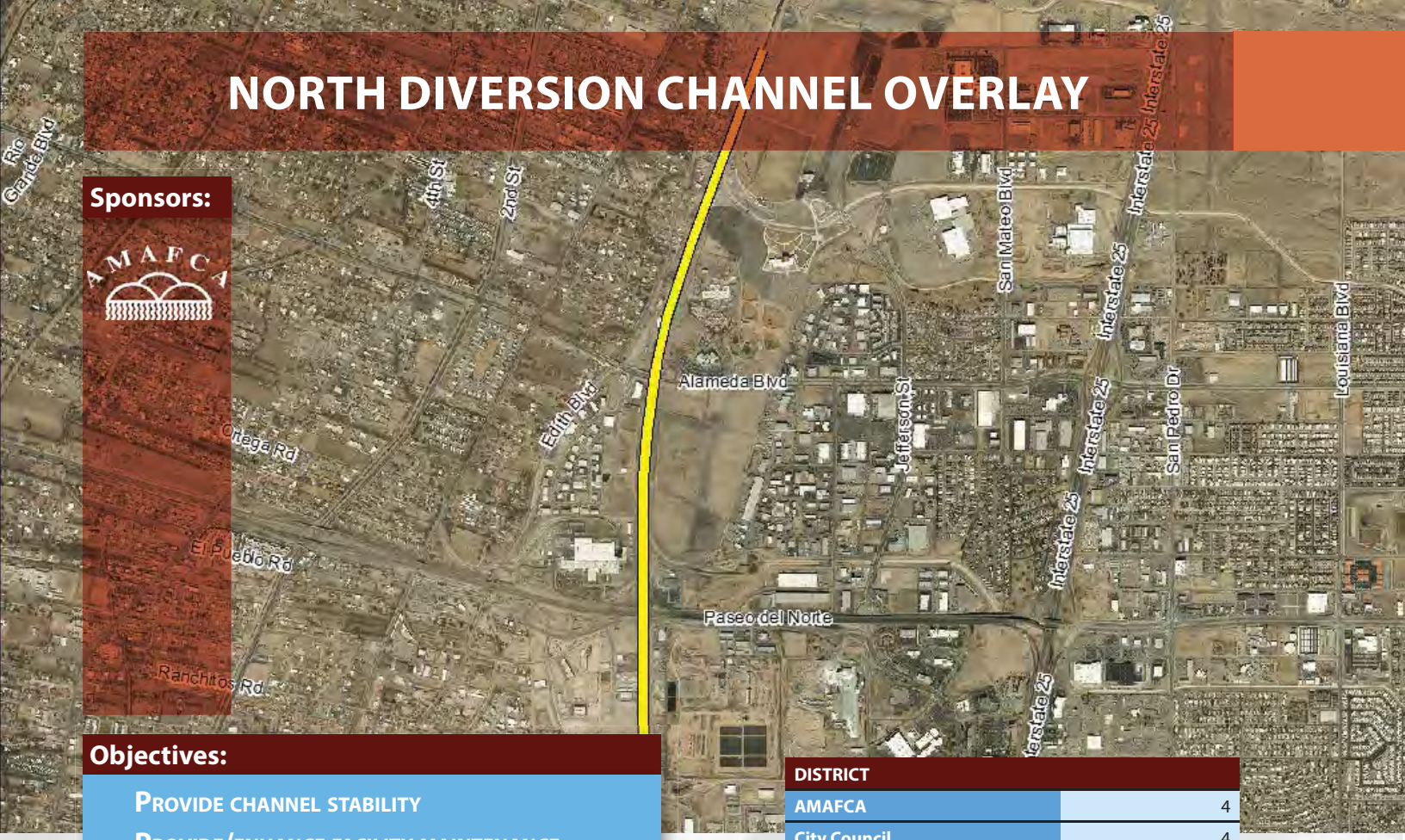
- Provide/enhance facility maintenance
- Provide/enhance stormwater quality

Total Cost: $976,000

Description:

The North Diversion Channel (NDC) transports approximately one third of the urban metropolitan area runoff to the Rio Grande. The outfall to the Rio Grande is the last location within the NDC with an opportunity to remove floatables from stormwater before they can enter the river. Constructing a floating boom system in the settling basin will improve the quality of stormwater by collecting floatables before they reach the river and provide compliance with the EPA MS4 permit. The floating boom system will significantly reduce manual trash removal in the settling area.

NORTH DIVERSION CHANNEL OVERLAY



Sponsors:

AMAFCA

Objectives:

- Provide channel stability
- Provide/enhance facility maintenance

Total Cost: $6,000,000

DISTRICT	
AMAFCA	4
City Council	4
County Commission	1, 4
NM Senate	13
NM House	15, 17

Potential AMAFCA Funding: $6,000,000

2018	2019	2020	2021	2022	2023
$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000

Description:

The North Diversion Channel (NDC) is the oldest flood control facility AMAFCA is responsible for. The NDC Overlay project addresses the degradation of the channel by adding additional concrete to the channel bottom. The reworked NDC bottom concentrates nuisance flows to one side of the channel thereby reducing the effects of freeze-thaw damage and extending the life of the facility.

Stakeholders:

AMAFCA, COE

NORTH DIVERSION CHANNEL / INDIAN SCHOOL STORMWATER QUALITY POND

Sponsors:

DISTRICT	
AMAFCA	5
City Council	2
County Commission	3
NM Senate	12
NM House	18

Potential AMAFCA Funding: $2,521,000

2018	2019	2020	2021	2022	2023
		$150,000	$1,300,000	$1,071,000	

Stakeholders:

UNM, CoA, AMAFCA, North Campus Neighborhood Residents

Objectives:

- Provide channel stability
- Provide/enhance stormwater quality

Total Cost: $2,521,000

Description:

This project will incorporate channel rehabilitation and a stormwater quality facility to allow for surface treatment of runoff from the University of New Mexico. An in-line stormwater quality facility will be constructed to enhance stormwater quality from flows in the North Diversion Channel and may include diversion structures and pond(s) to provide additional water quality and re-use opportunities for the University of New Mexico North Campus Golf Course and surrounding facilities.

NORTH DOMINGO BACA DAM EMERGENCY ACTION PLAN

Sponsors:

AMAFCA

Objectives:

PROVIDE EMERGENCY PLANNING AND MAPPING

Total Cost: $50,000

DISTRICT	
AMAFCA	4
City Council	4
County Commission	4
NM Senate	21
NM House	15, 31

Potential AMAFCA Funding: $50,000

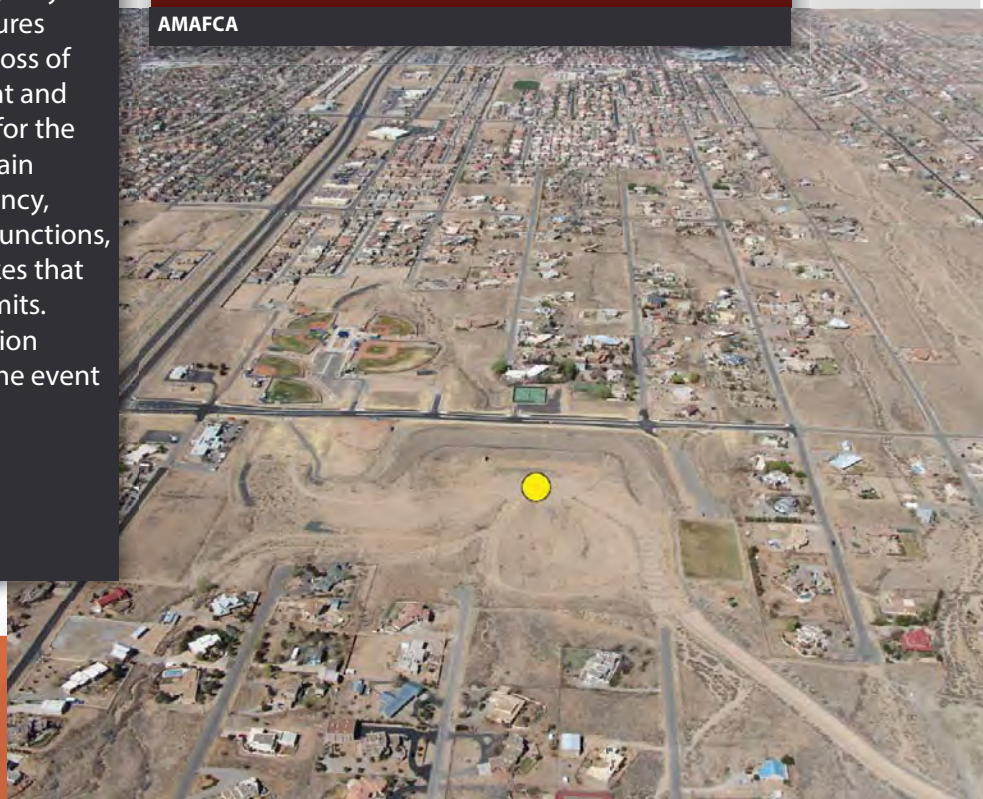
2018	2019	2020	2021	2022	2023
$50,000					

Description:

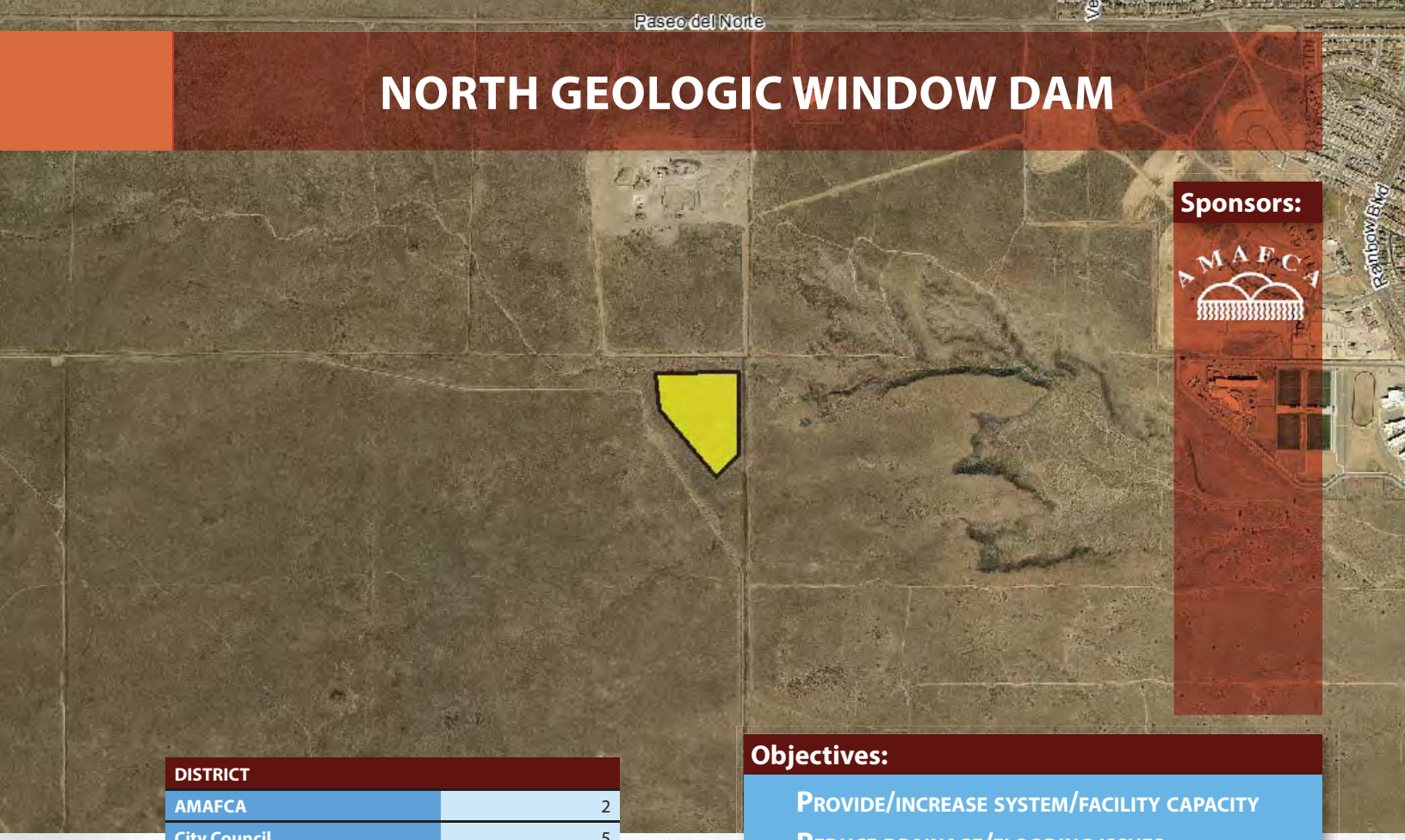
An Emergency Action Plan (EAP) is a formal plan required by the Office of the State Engineer Bureau of Dam Safety that identifies potential emergency conditions at a dam and outlines the procedures to follow to minimize property damage and loss of life. This project will include the development and preparation of an EAP and inundation maps for the North Domingo Baca Dam. The EAP will contain procedures to be followed during an emergency, such as structural problems, equipment malfunctions, or natural events such as floods or earthquakes that could approach or exceed the dam design limits. Inundation mapping will outline the evacuation boundaries for the community on a map in the event of a dam failure.

Stakeholders:

AMAFCA



NORTH GEOLOGIC WINDOW DAM



Sponsors:

DISTRICT	
AMAFCA	2
City Council	5
County Commission	4
NM Senate	23
NM House	29

Potential AMAFCA Funding: $4,080,000

2018	2019	2020	2021	2022	2023
$25,000		$200,000	$50,000	$50,000	$3,759,000

Stakeholders:

AMAFCA, NPS, OSE

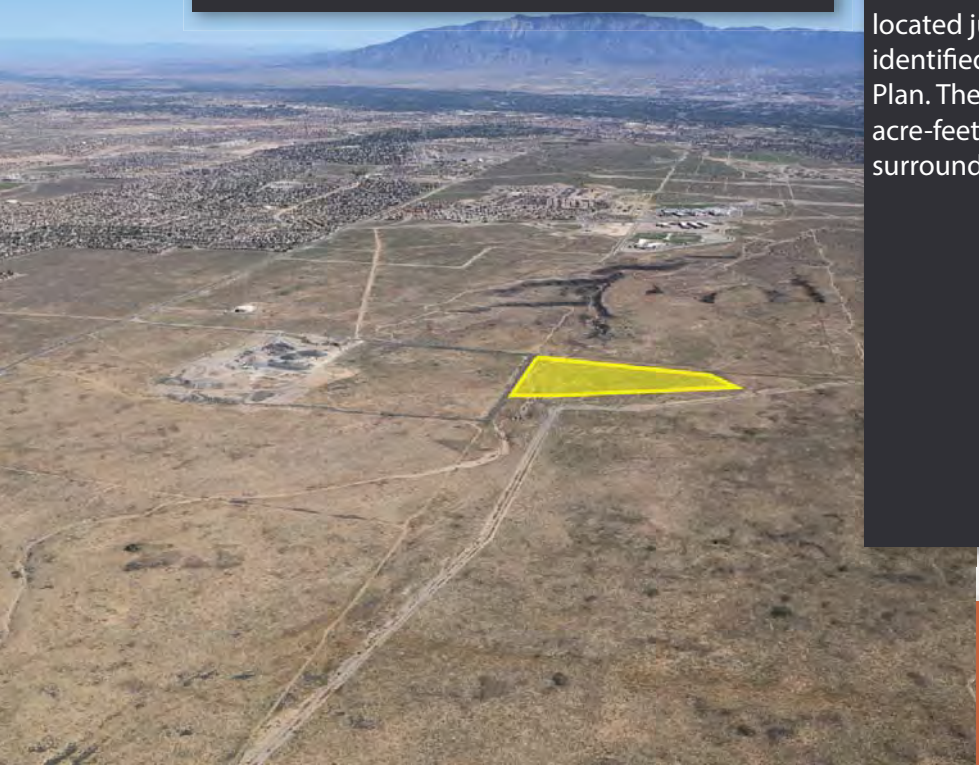
Objectives:

- Provide/increase system/facility capacity
- Reduce drainage/flooding issues

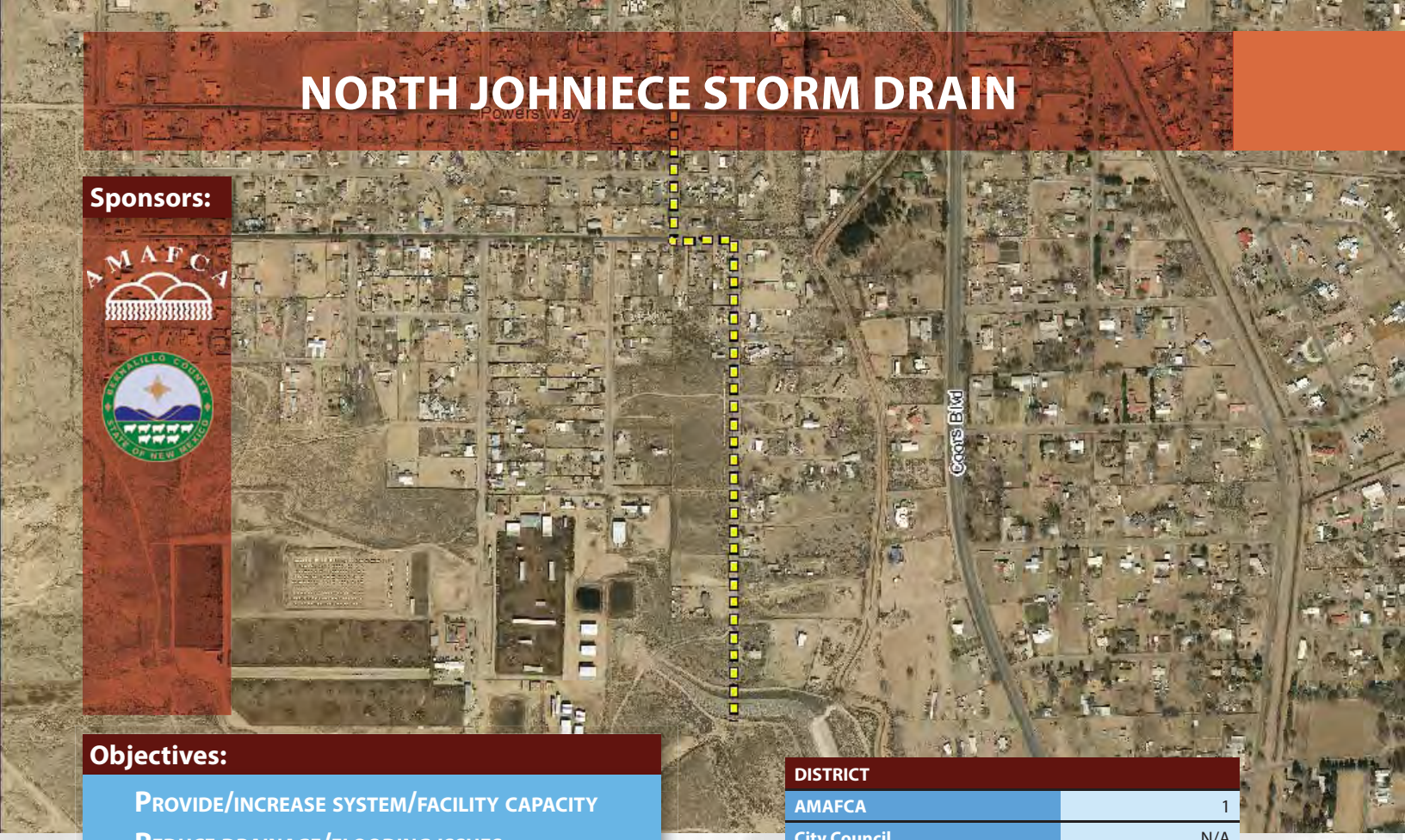
Total Cost: $4,080,000

Description:

This project will help to control flows in the Boca Negra Arroyo as they enter the North Geologic Window, a parcel of land included in the Petroglyph National Monument. A proposed detention dam located just west of the North Geologic Window, was identified in the Boca Negra Drainage Management Plan. The detention dam will be designed to hold 173 acre-feet of storage and will need to blend in with the surrounding landscape.



NORTH JOHNIECE STORM DRAIN



Sponsors:

AMAFCA

Bernalillo County, State of New Mexico

Objectives:

- Provide/increase system/facility capacity
- Reduce drainage/flooding issues
- Remove floodplain

Total Cost: $3,764,000

DISTRICT	
AMAFCA	1
City Council	N/A
County Commission	2
NM Senate	14
NM House	26

Potential AMAFCA Funding: $1,882,000

2018	2019	2020	2021	2022	2023
		$150,000	$1,732,000		

Description:

This project will provide the necessary infrastructure to remove floodplain and relieve area drainage problems in the vicinity of Powers Way and Johniece Drive, and areas east of Johniece near Coors Boulevard. A 30-72" storm drain will be installed in Johniece Drive from Powers Way to the McCoy Dam and a small, approximately 10 acre-foot detention pond constructed in the arroyo west of Ray Lane. Right of way will have to be acquired for the storm drain and pond.

Stakeholders:

BernCo, AMAFCA

NORTH VALLEY DRAINAGE MANAGEMENT PLAN

Sponsors:

DISTRICT	
AMAFCA	4
City Council	N/A
County Commission	4
NM Senate	9, 10, 13
NM House	15

Potential AMAFCA Funding: $200,000

2018	2019	2020	2021	2022	2023
	$200,000				

Stakeholders:

BernCo, AMAFCA, VLR, NMDOT, MRGCD, CoA

Objectives:

- Provide/increase system/facility capacity
- Reduce drainage/flooding issues
- Remove floodplain

Total Cost: $200,000

Description:

A comprehensive plan will define and manage drainage policy, determine need for infrastructure, provide engineering information to support removal of floodplains, and allow for multi-agency cooperation of drainage projects in the North Valley. The study is bounded by the North Diversion Channel on the east, the Rio Grande on the west, Montaño Road on the south, and the North Diversion Channel Outfall on the north. The North Valley is very flat and has a mix of agricultural, residential and commercial properties. Irrigation ditches, the rail tracks, and multi-jurisdictional boundaries add unique elements to the study area.

ORTEGA-GARDUNO STORM DRAIN

Sponsors:

AMAFCA

Objectives:

- Remove floodplain
- Reduce drainage/flooding issues
- Provide/increase system/facility capacity

Total Cost: $2,587,000

DISTRICT	
AMAFCA	4
City Council	N/A
County Commission	4
NM Senate	13
NM House	15

Potential AMAFCA Funding: $500,000

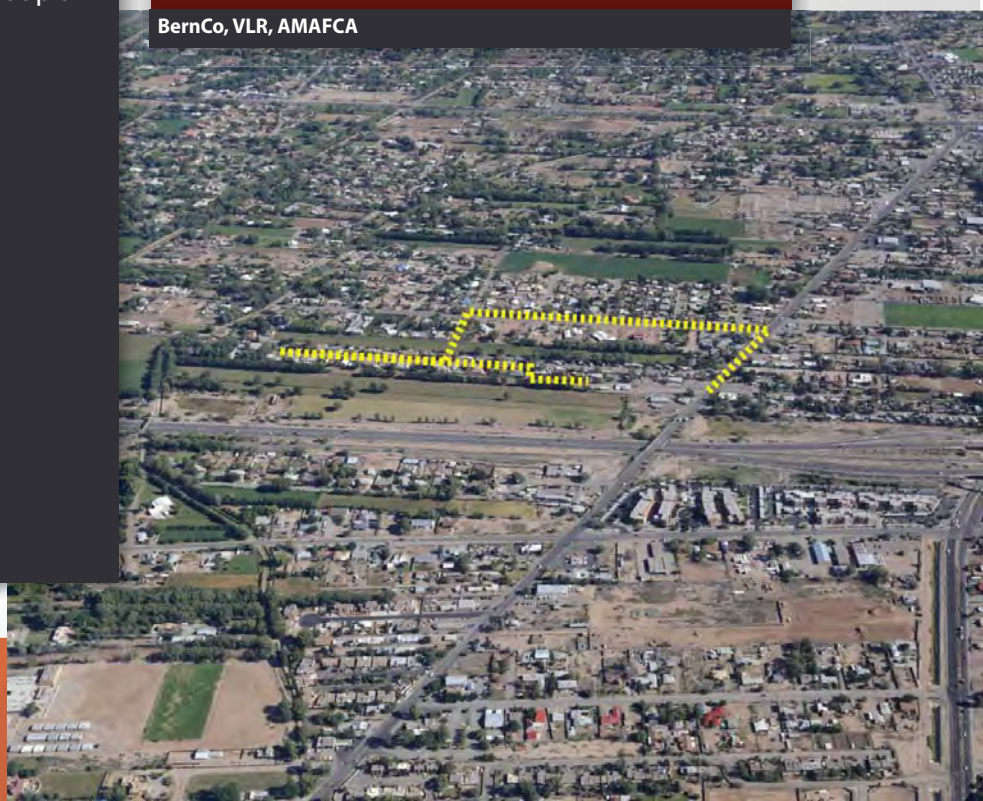
2018	2019	2020	2021	2022	2023
$500,000					

Description:

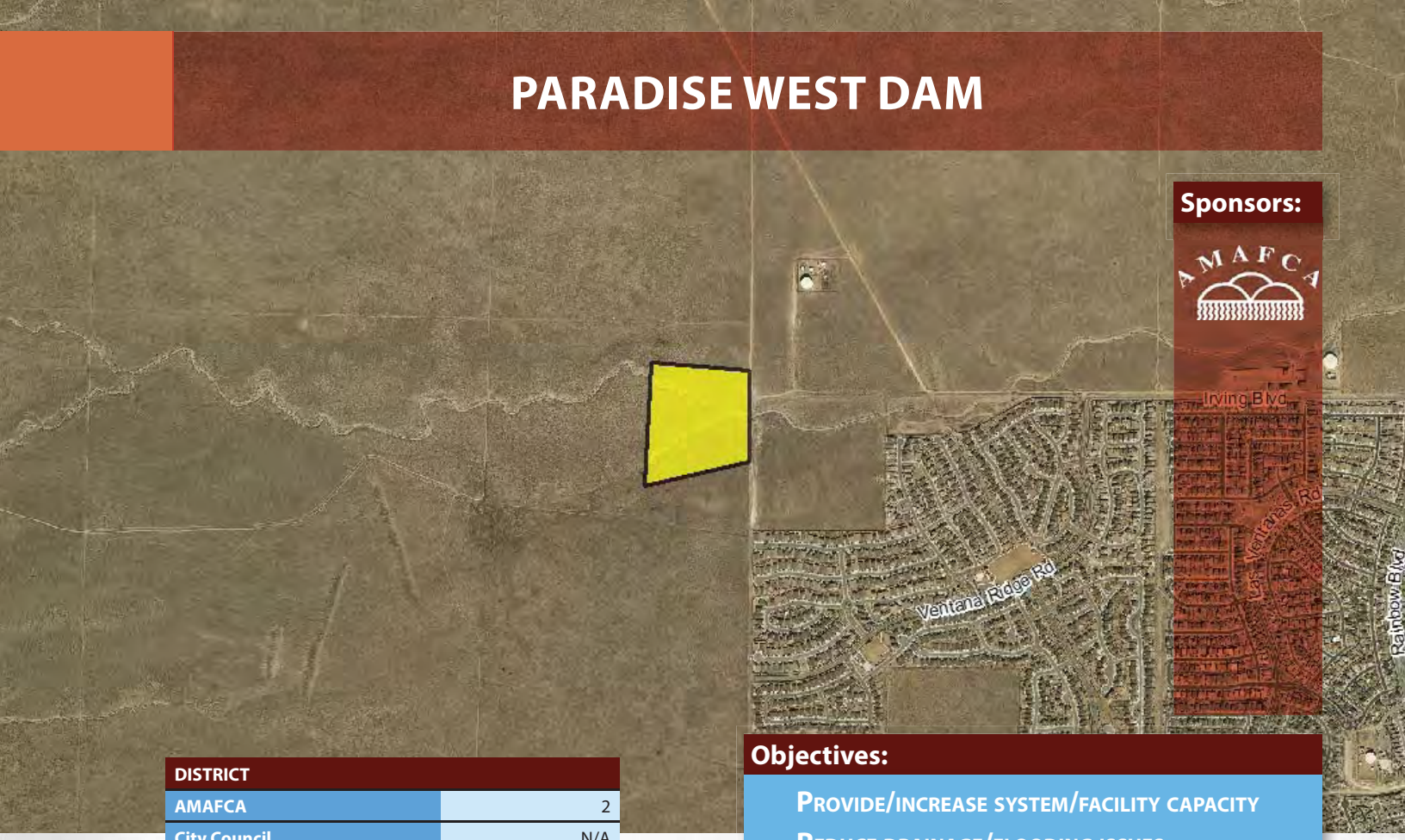
The project includes storm drain infrastructure in 4th Street north of Paseo Del Norte and on adjacent side streets and will result in the elimination of floodplain and drainage issues in the area.

Stakeholders:

BernCo, VLR, AMAFCA



PARADISE WEST DAM



Sponsors:

AMAFCA

DISTRICT	
AMAFCA	2
City Council	N/A
County Commission	1
NM Senate	23
NM House	29

Potential AMAFCA Funding: $1,187,000

2018	2019	2020	2021	2022	2023
	$50,000	$200,000	$937,000		

Stakeholders:

AMAFCA, OSE, BernCo, City of Rio Rancho

Objectives:

- Provide/increase system/facility capacity
- Reduce drainage/flooding issues

Total Cost: $1,187,000

Description:

This large detention facility near del Oeste Blvd will control flows in the West Branch of the Calabacillas Arroyo to historic rates, provide for reduction in sediment transport, and be designed for possible multi-use opportunities.

PIEDRAS MARCADAS DAM OUTFALL

Sponsors:

AMAFCA

Objectives:

- Provide/increase system/facility capacity
- Reduce drainage/flooding issues

Total Cost: $8,279,000

DISTRICT	
AMAFCA	4
City Council	1
County Commission	1
NM Senate	10, 23
NM House	15, 23

Potential AMAFCA Funding: $8,279,000

2018	2019	2020	2021	2022	2023
			$200,000	$4,000,000	$4,079,000

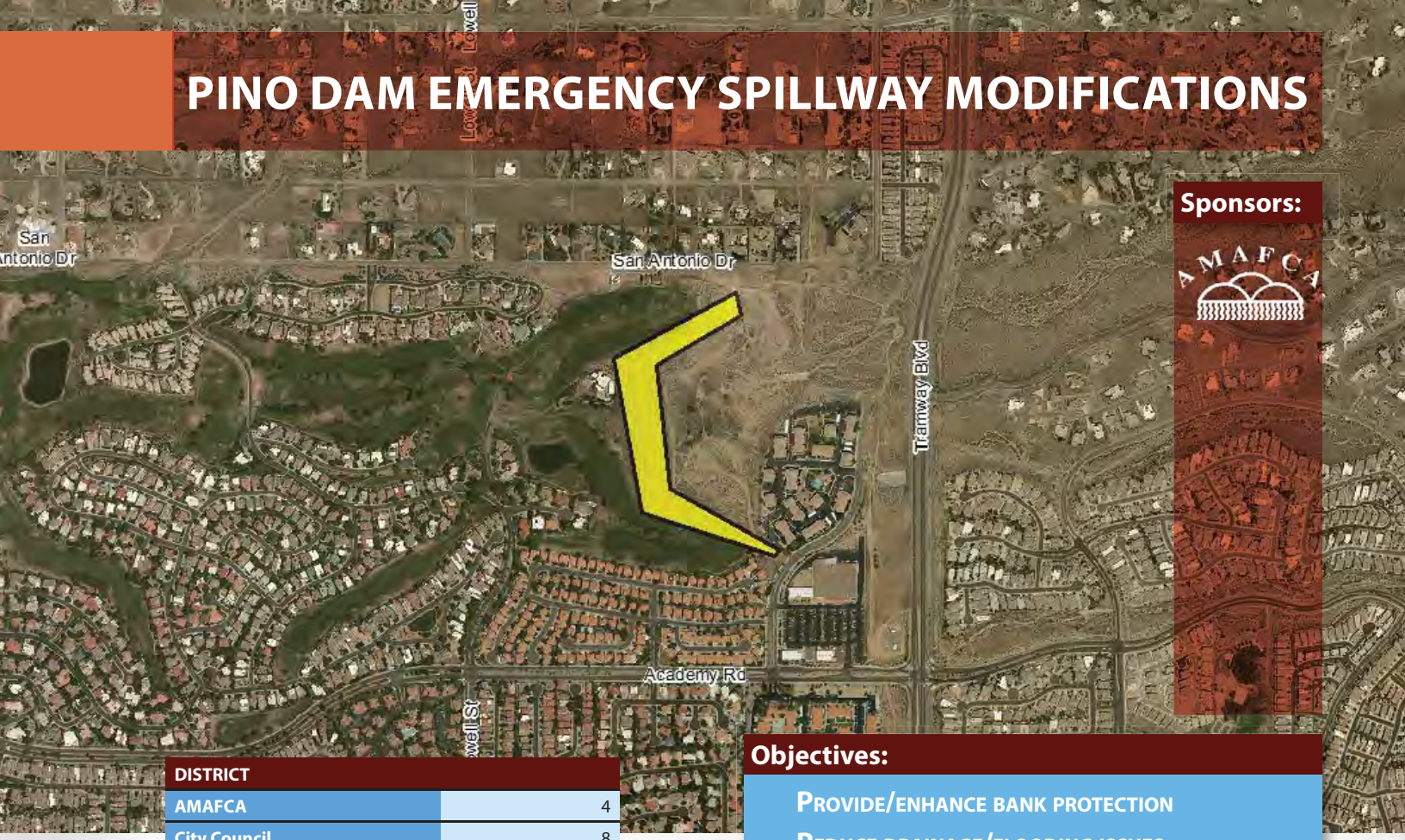
Description:

The outfall pipe of the Piedras Marcadas Dam currently uses a gate valve to release detained stormwater from the dam into Middle Rio Grande Conservancy District's Corrales Main Canal. The gate valve must be opened and closed manually while regulating the stormwater flows from the dam into the canal. The volume capacity of the Corrales Main Canal cannot currently accept the additional flow from the dam if the canal is running full after a rain event, so careful observation from the gate valve operator is required to avoid flooding or overtopping the canal while draining the dam sufficiently in anticipation of subsequent storm events. This project will provide an alternative to avoid both of the current problems by installing a gravity primary spillway from the dam outfall to the Rio Grande. This project will remove flow created by dam releases in the canal and drain the dam in a timely and efficient manner.

Stakeholders:

AMAFCA, BernCo, COA, MRGCD

PINO DAM EMERGENCY SPILLWAY MODIFICATIONS



Sponsors:

DISTRICT	
AMAFCA	4
City Council	8
County Commission	4
NM Senate	21
NM House	31

Potential AMAFCA Funding: $3,826,000

2018	2019	2020	2021	2022	2023
			$250,000	$2,570,000	$1,006,000

Stakeholders:

AMAFCA, OSE, Tanoan Residents

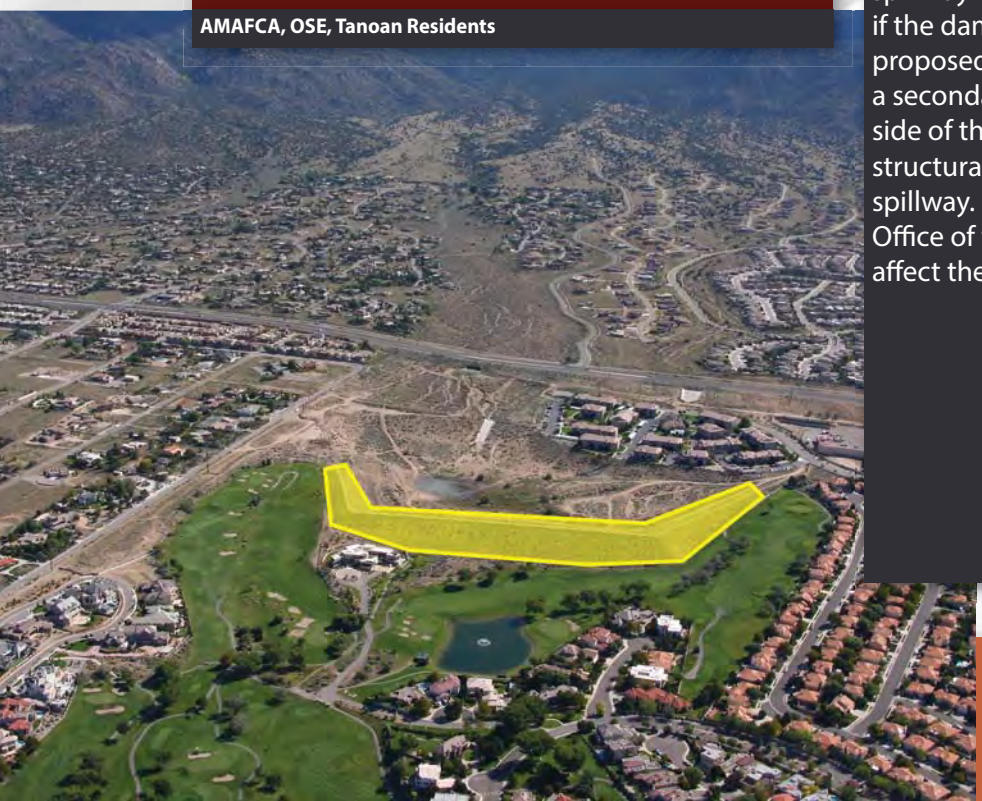
Objectives:

- Provide/enhance bank protection
- Reduce drainage/flooding issues

Total Cost: $3,826,000

Description:

Pino Dam is presently an earthen dam near Tramway Boulevard and San Antonio Drive. The earthen spillway has the potential to undergo head cutting if the dam spillway is operating. The modifications proposed for this project require either constructing a secondary emergency spillway on the west or south side of the dam and/or adding erosion resistant structural elements to the primary emergency spillway. Either proposal must get approval by the Office of the State Engineer and must not adversely affect the adjoining golf course.



SOUTH DIVERSION CHANNEL ACCESS PROJECT

Sponsors:

AMAFCA

Objectives:

- Provide/enhance facility maintenance
- Provide/enhance stormwater quality

Total Cost: $150,000

DISTRICT	
AMAFCA	1
City Council	2
County Commission	2
NM Senate	12
NM House	10

Potential AMAFCA Funding: $150,000

2018	2019	2020	2021	2022	2023
		$150,000			

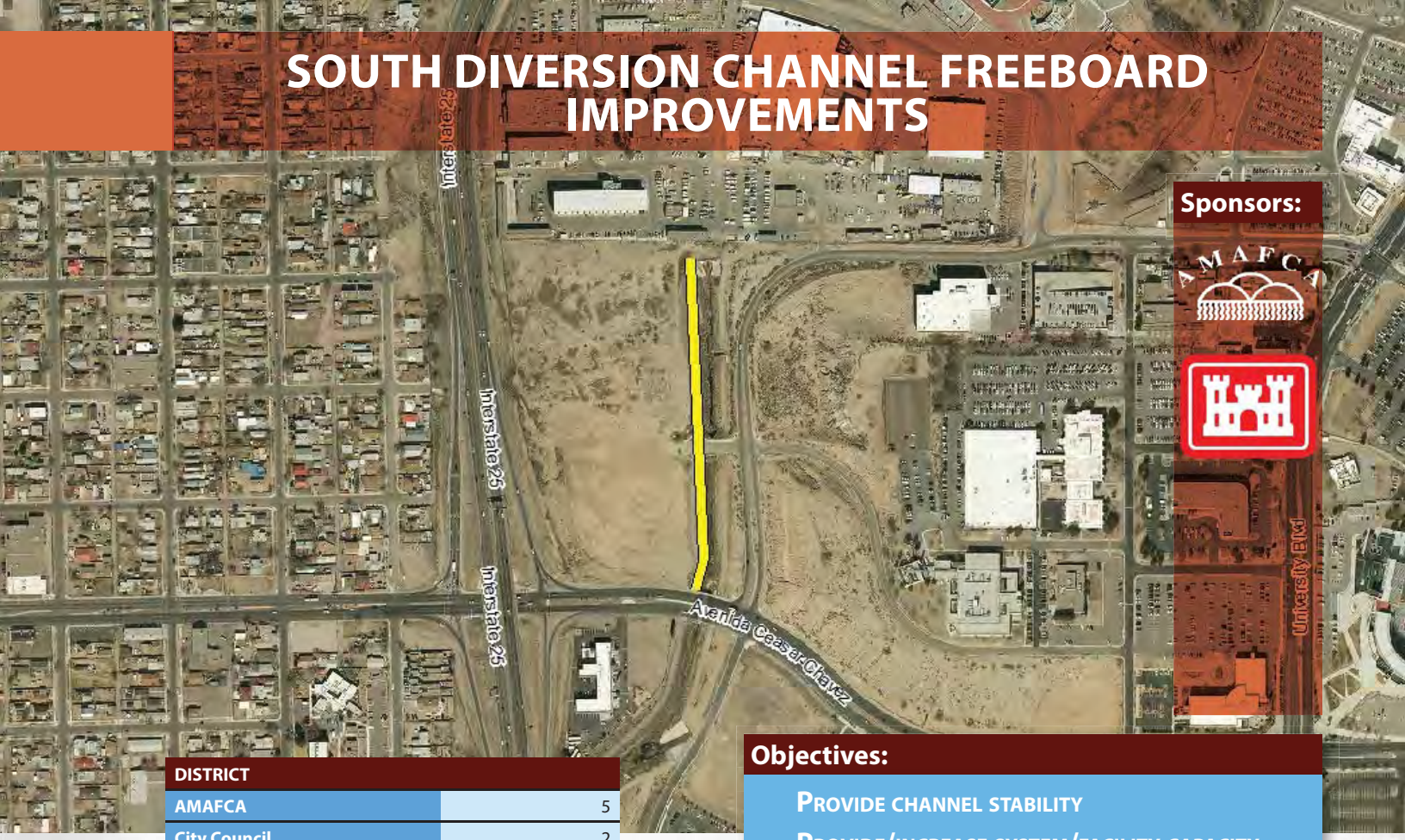
Description:

The South Diversion Channel Access Project will provide better access to the South Diversion Channel, Geneiva's Arroyo drop structure, and future water quality facilities. Access to the South Diversion Channel from Gibson Boulevard is problematic due to the proximity of the I-25 on and off ramps and two concrete side inlets that receive drainage from Gibson Boulevard. The project will modify the side inlets and install drive pads and maintenance roads.

Stakeholders:

AMAFCA, UNM

SOUTH DIVERSION CHANNEL FREEBOARD IMPROVEMENTS



Sponsors:

DISTRICT	
AMAFCA	5
City Council	2
County Commission	3
NM Senate	12
NM House	18

Potential AMAFCA Funding: $419,000

2018	2019	2020	2021	2022	2023
			$100,000	$319,000	

Stakeholders:

AMAFCA, CoE

Objectives:

- Provide channel stability
- Provide/increase system/facility capacity

Total Cost: $419,000

Description:

Improvements to the South Diversion Channel will achieve the additional freeboard necessary to meet federal requirements pertaining to levees. The project will include the construction of a two-foot high sill wall along the south side of the South Diversion Channel near the APS outlet. The channel will be able to contain the 500-year water surface elevation with run-up and rolling waves along with the required freeboard protection after the necessary improvements have been constructed.

SOUTH DIVERSION CHANNEL OUTFALL STORMWATER QUALITY

Sponsors:

AMAFCA

Objectives:

- Provide/enhance facility maintenance
- Provide/enhance stormwater quality

Total Cost: $1,134,000

DISTRICT	
AMAFCA	1
City Council	N/A
County Commission	2
NM Senate	14
NM House	10

Potential AMAFCA Funding: $1,134,000

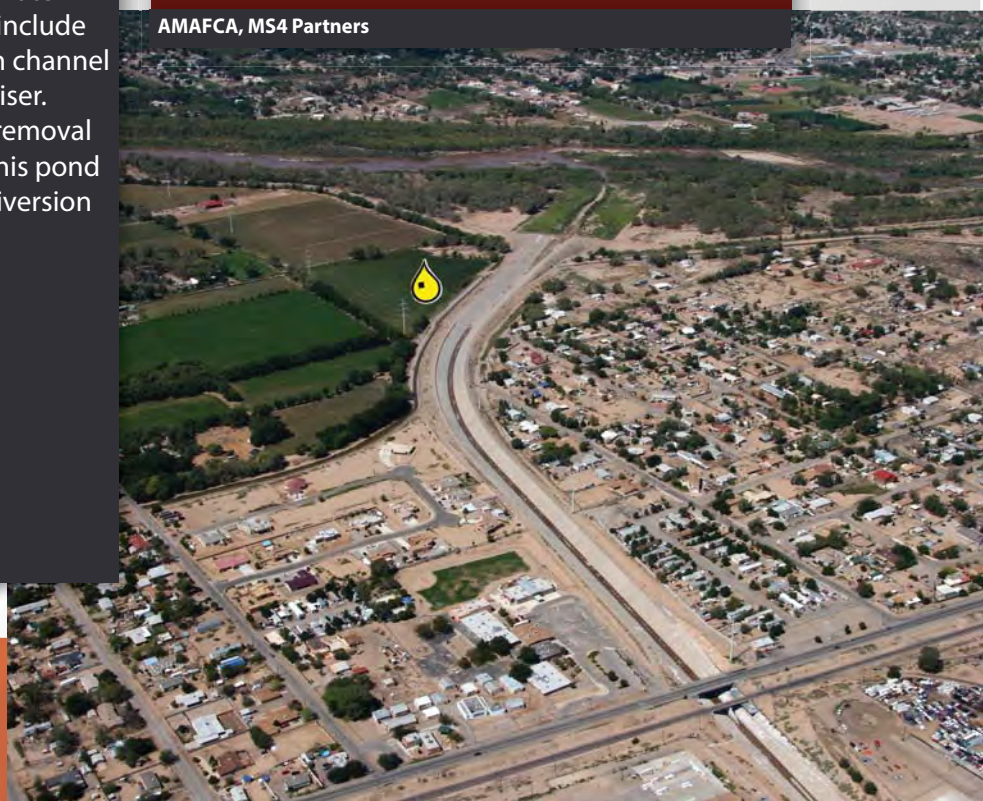
2018	2019	2020	2021	2022	2023
				$250,000	$884,000

Description:

Constructing a stormwater quality facility near the South Diversion Channel outfall to the Rio Grande will remove sediment and debris from stormwater before it can reach the river. This project will include the construction of a diversion from the main channel into stormwater quality pond with a ported riser. Stormwater quality will be enhanced by the removal of sediment and floatables. Discharge from this pond will either be rerouted back into the South Diversion Channel or the local irrigation lateral.

Stakeholders:

AMAFCA, MS4 Partners



SOUTH DOMINGO BACA DAM EMERGENCY ACTION PLAN

Sponsors:

AMAFCA

DISTRICT	
AMAFCA	4
City Council	N/A
County Commission	4
NM Senate	21
NM House	31

Objectives:

PROVIDE EMERGENCY PLANNING AND MAPPING

Total Cost: $50,000

Potential AMAFCA Funding: $50,000

2018	2019	2020	2021	2022	2023
$50,000					

Stakeholders:

Emergency Responders, AMAFCA,OSE, BernCo, CoA

Description:

An Emergency Action Plan (EAP) is a formal plan required by the Office of the State Engineer Bureau of Dam Safety that identifies potential emergency conditions at a dam and outlines the procedures to follow to minimize property damage and loss of life. This project will include the development and preparation of an EAP and inundation maps for the South Domingo Baca Dam. The EAP will contain procedures to be followed during an emergency, such as structural problems, equipment malfunctions, or natural events such as floods or earthquakes that could approach or exceed the dam design limits. Inundation mapping will outline the evacuation boundaries for the community on a map in the event of a dam failure.

SOUTH DOMINGO BACA DIVERSION CHANNEL EXTENSION (HAWKS LANDING)

Sponsors:

AMAFCA

Objectives:

- Provide/enhance stormwater quality
- Provide/increase system/facility capacity

Total Cost: $40,000

DISTRICT	
AMAFCA	4
City Council	N/A
County Commission	4
NM Senate	20
NM House	31

Potential AMAFCA Funding: $40,000

2018	2019	2020	2021	2022	2023
$40,000					

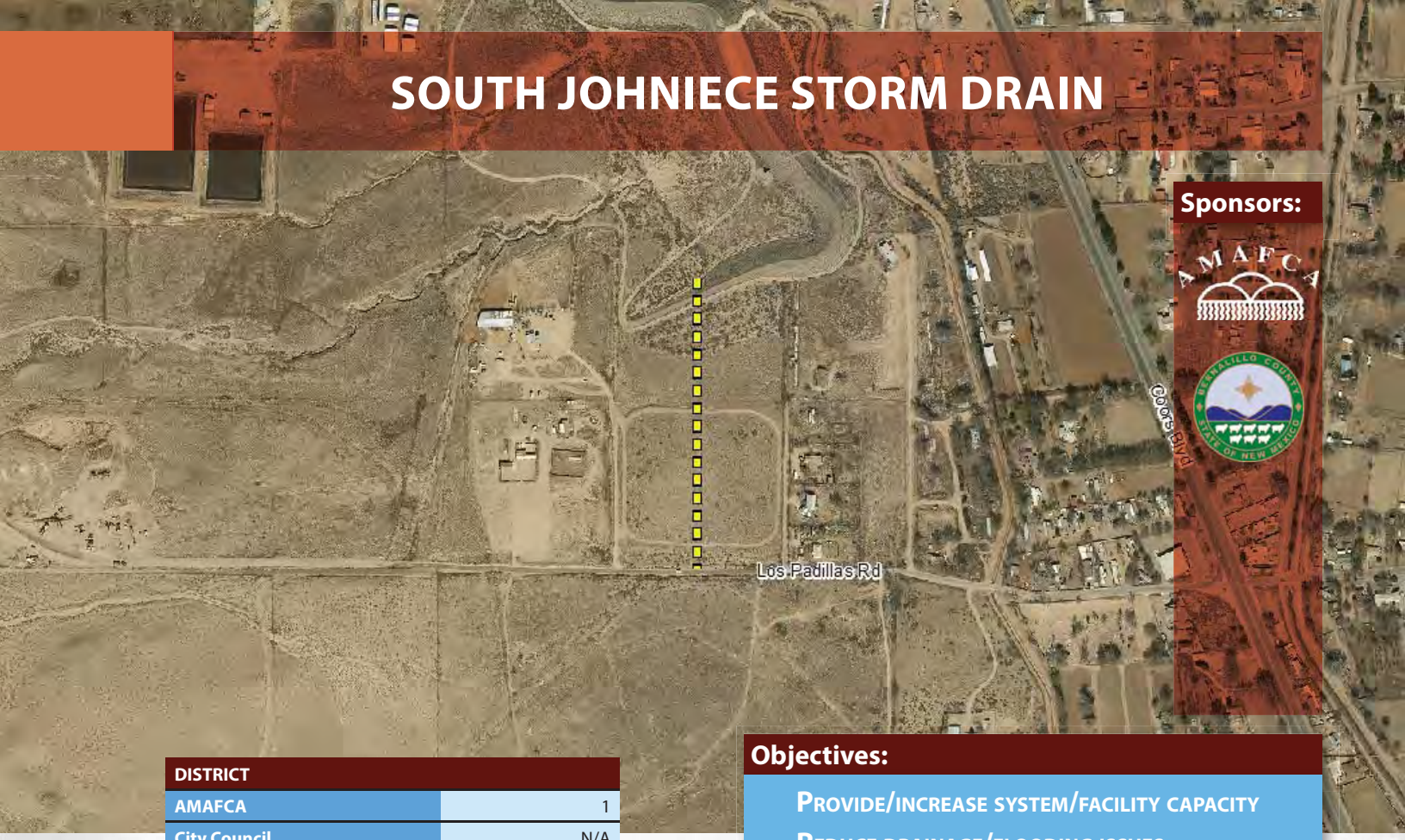
Description:

AMAFCA will cost-share with the developer of the Hawk's Landing Subdivision to extend the box culvert at Tramway to provide better access for maintenance of the existing Morgan Flood Wall of the South Domingo Baca Arroyo.

Stakeholders:

AMAFCA

SOUTH JOHNIECE STORM DRAIN



Sponsors:

DISTRICT	
AMAFCA	1
City Council	N/A
County Commission	2
NM Senate	14
NM House	26

Potential AMAFCA Funding: $316,000

2018	2019	2020	2021	2022	2023
		$75,000	$241,000		

Stakeholders:

MRGCD, AMAFCA, BernCo

Objectives:

- Provide/increase system/facility capacity
- Reduce drainage/flooding issues
- Remove floodplain

Total Cost: $632,000

Description:

This project will provide relief of existing drainage problems and remove floodplain in the area south of the McCoy Dam by providing a direct drainage connection to the dam. A storm drain will be constructed in the Johniece Drive alignment, south of McCoy Dam, from Los Padillas Road to the dam pool. This project will divert flows that in the past have inundated properties to the south of the dam and remove floodplain from some properties downstream of the Gun Club Lateral.

SOUTH PINO BANK MONITORING AND ENHANCEMENT

Sponsors:

AMAFCA

Objectives:

- Provide channel stability
- Reduce drainage/flooding issues

Total Cost: $200,000

DISTRICT	
AMAFCA	4
City Council	4
County Commission	4
NM Senate	21
NM House	27

Potential AMAFCA Funding: $200,000

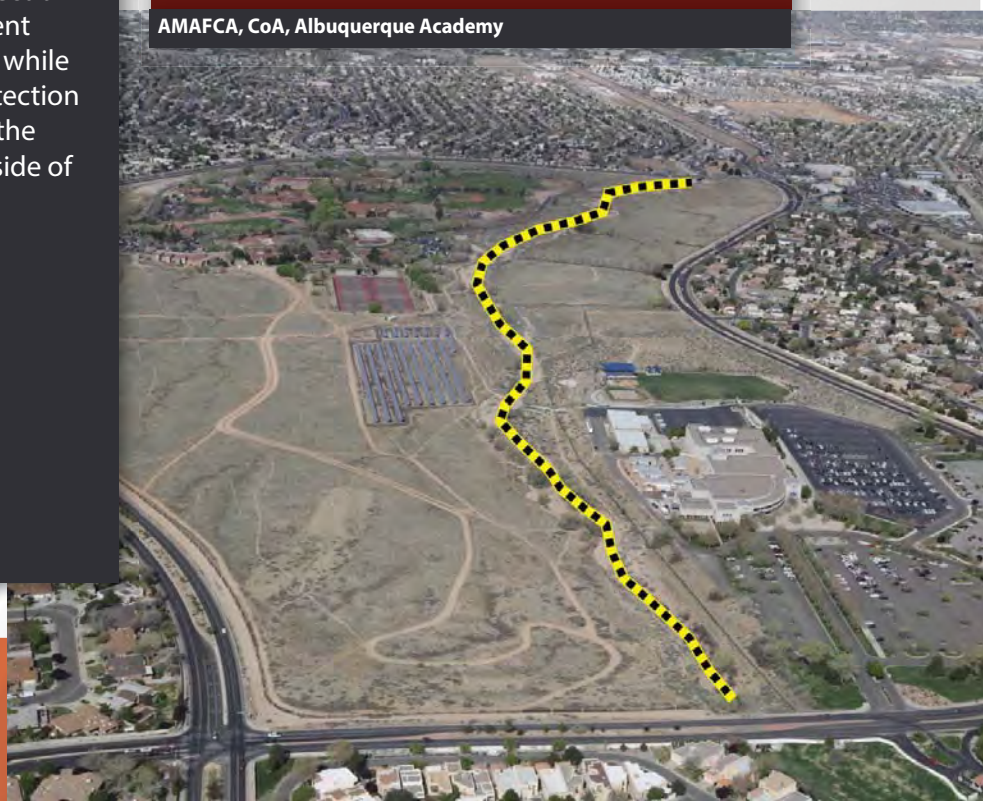
2018	2019	2020	2021	2022	2023
$50,000	$50,000	$50,000	$50,000		

Description:

The South Pino Arroyo is an arroyo that mimics a natural channel in the northeast portion of Albuquerque. Grade control structures and bank protection are applied to these types of arroyos to prevent lateral erosion or vertical degradation issues, while maintaining a natural appearance. Bank protection and grade control structures may be built in the South Pino Arroyo if it begins to migrate outside of the designated limits.

Stakeholders:

AMAFCA, CoA, Albuquerque Academy



SWINBURNE DAM REGIONAL STORMWATER QUALITY AND SEDIMENT FACILITY

Sponsors:

AMAFCA

DISTRICT	
AMAFCA	2
City Council	5
County Commission	4
NM Senate	10, 23
NM House	68

Objectives:

PROVIDE/ENHANCE FACILITY MAINTENANCE

Total Cost: $1,900,000

Potential AMAFCA Funding: $1,900,000

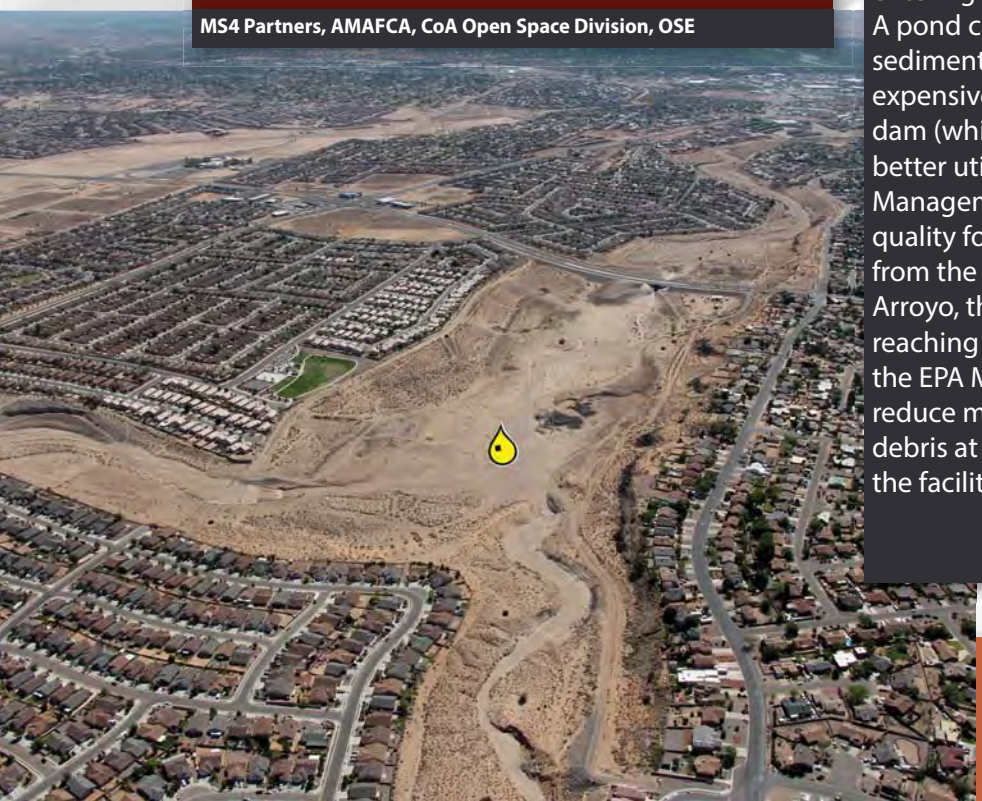
2018	2019	2020	2021	2022	2023
	$150,000	$500,000	$1,250,000		

Stakeholders:

MS4 Partners, AMAFCA, CoA Open Space Division, OSE

Description:

Design and entitlement of a water quality pond within the confluence of the two major arroyos entering the dam will create a "dam within a dam." A pond capable of holding "first flush" flows and sediment/debris will make removals easier and less expensive, and allow the remaining area within the dam (which is City Open Space) to be cleaner and better utilized. The project will incorporate Best Management Practices to enhance stormwater quality for flows coming into the Swinburne Dam from the west and main branches of the Calabacillas Arroyo, thus improving the quality of stormwater reaching the river and providing compliance with the EPA MS4 permit. This project will be designed to reduce maintenance costs by concentrating trash and debris at discrete locations while allowing the rest of the facility to be "trash-free."



TIJERAS SEDIMENT FACILITY PHASE II

Sponsors:

AMAFCA

Objectives:

PROVIDE/ENHANCE STORMWATER QUALITY

Total Cost: $2,885,000

DISTRICT	
AMAFCA	1
City Council	N/A
County Commission	2
NM Senate	14
NM House	10

Potential AMAFCA Funding: $2,885,000

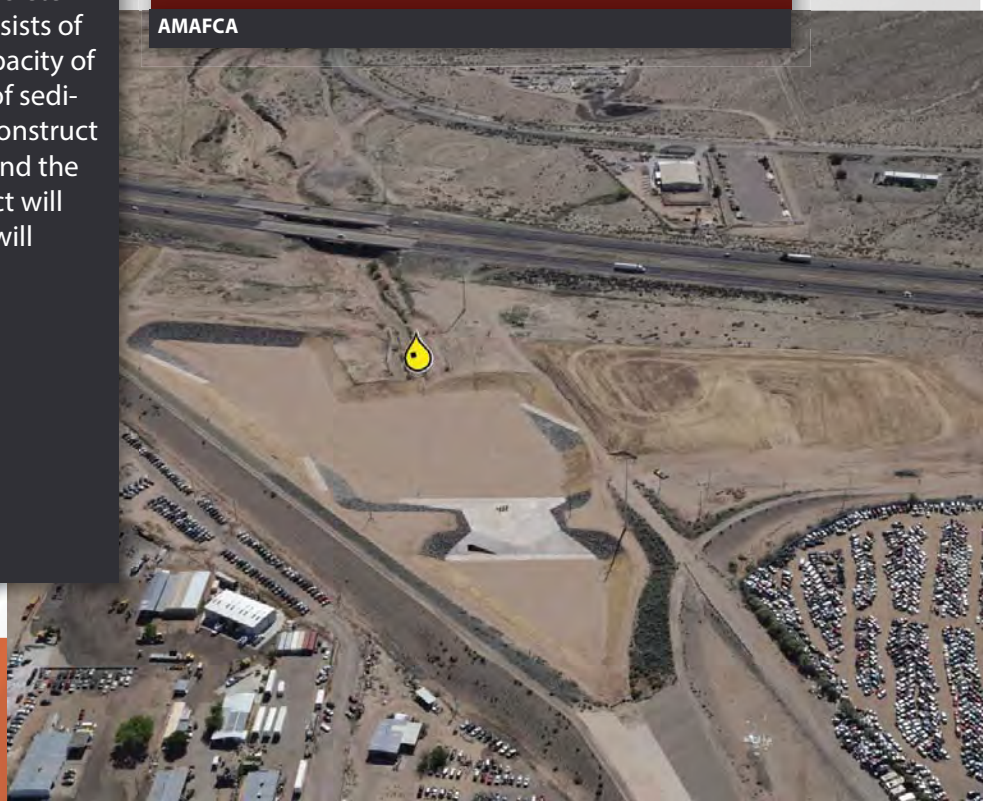
2018	2019	2020	2021	2022	2023
$2,885,000					

Description:

The Tijeras Arroyo Sediment Retention Structure is a regional stormwater quality improvement structure designed to capture sediment above the concrete section of the Tijeras Arroyo. The project consists of three separate basins with a total storage capacity of approximately 50,000 to 75,000 cubic yards of sediment. The second phase of the project will construct the remaining portions of the middle basin and the entirety of the easternmost basin. The project will also construct the concrete box culvert that will connect the basins.

Stakeholders:

AMAFCA



UPPER BEAR TRIBUTARY STORMWATER QUALITY

Sponsors:

DISTRICT	
AMAFCA	3
City Council	8
County Commission	5
NM Senate	18
NM House	30

Objectives:

PROVIDE/ENHANCE STORMWATER QUALITY

PROVIDE/ENHANCE FACILITY MAINTENANCE

Total Cost: $100,000

Potential AMAFCA Funding: $100,000

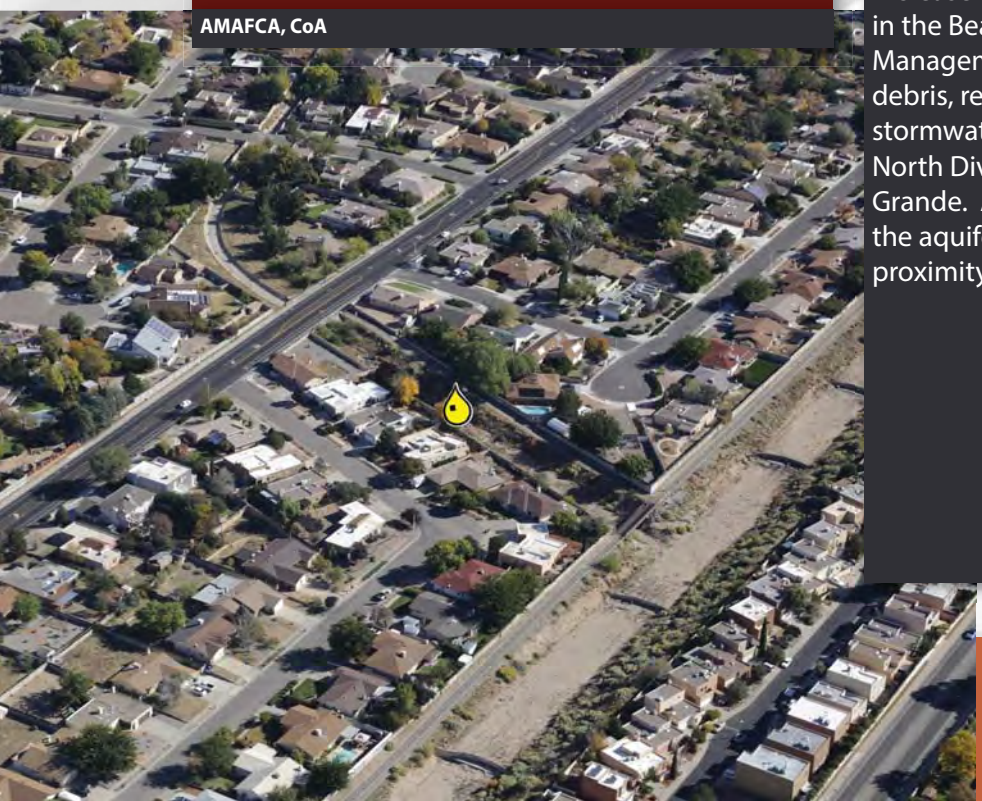
2018	2019	2020	2021	2022	2023
$100,000					

Stakeholders:

AMAFCA, CoA

Description:

Regional flood control and stormwater quality improvements on the Upper Bear Tributary will increase the efficiency of the storm drainage system in the Bear Arroyo Watershed utilizing a regional Best Management Practice structure to collect trash and debris, reduce peak runoff flows as well as enhance stormwater quality before discharging into the North Diversion Channel and ultimately into the Rio Grande. A secondary water quality benefit will be for the aquifer storage and recovery project given the proximity to the Bear Arroyo direct injection site.



UPPER CALABACILLAS FACILITY PLAN

Sponsors:

AMAFCA

Objectives:

- Provide/increase system/facility capacity
- Provide/enhance stormwater quality
- Provide/enhance facility maintenance
- Reduce drainage/flooding issues

Total Cost: $250,000

DISTRICT	
AMAFCA	2, 4
City Council	5
County Commission	4
NM Senate	10, 23
NM House	29, 68

Potential AMAFCA Funding: $250,000

2018	2019	2020	2021	2022	2023
	$250,000				

Description:

The Upper Calabacillas Facility Plan will evaluate the Calabacillas Arroyo from the south edge of Swinburne Dam, to the northern edge of the AMAFCA jurisdiction. The goal of the plan will be to evaluate the existing grade control structures, evaluate the risks for lateral and vertical erosion, and identify any possible areas for enhancing stormwater quality.

Stakeholders:

AMAFCA, CoA, SSCAFCA

UPPER PIEDRAS MARCADAS POND

Sponsors:

DISTRICT	
AMAFCA	2
City Council	5
County Commission	4
NM Senate	10
NM House	68

Potential AMAFCA Funding: $1,972,500

2018	2019	2020	2021	2022	2023
$150,000	$622,000	$1,200,500			

Stakeholders:

AMAFCA, NPS, CoA

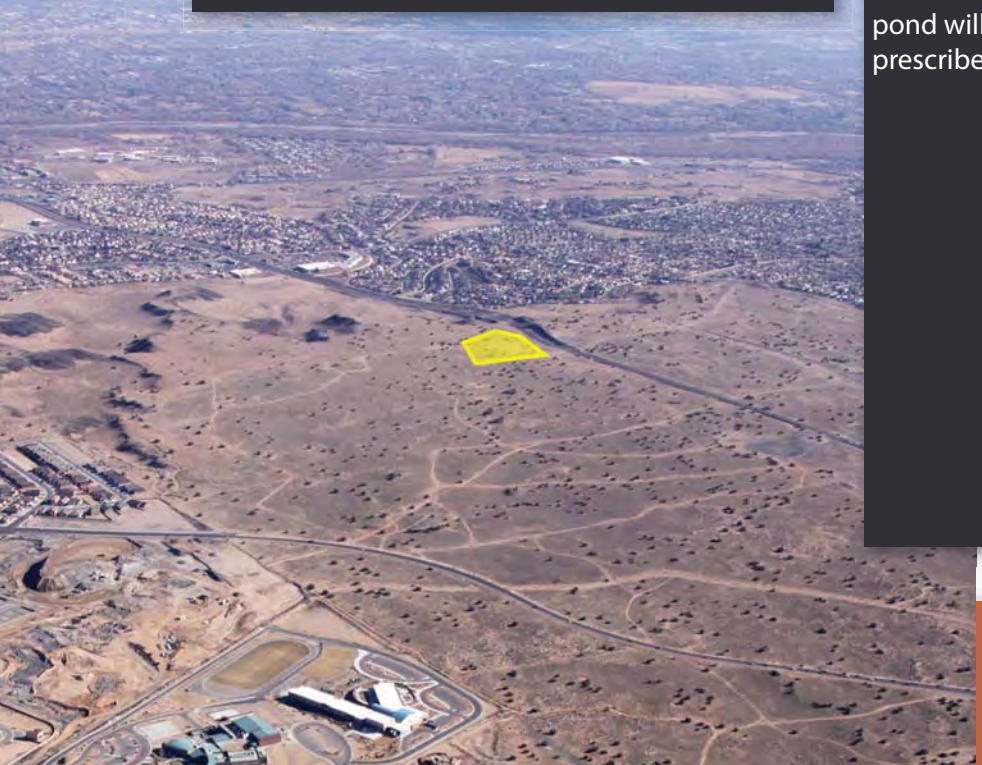
Objectives:

- Provide/increase system/facility capacity
- Provide/enhance stormwater quality

Total Cost: $3,945,000

Description:

The future development of the Upper Piedras Marcadas watershed will produce runoff quantities that will exceed the capacity of the existing storm drain in Paseo del Norte Boulevard. A 20 acre-foot detention pond will be constructed to safely discharge runoff to prescribed rate and provide enhanced water quality.



UPPER SNOW VISTA CHANNEL IMPROVEMENTS STUDY

Sponsors:

AMAFCA

Objectives:

- Provide/increase system/facility capacity
- Reduce drainage/flooding issues
- Provide/enhance stormwater quality

Total Cost: $100,000

DISTRICT	
AMAFCA	2
City Council	3
County Commission	2
NM Senate	11
NM House	13

Potential AMAFCA Funding: $100,000

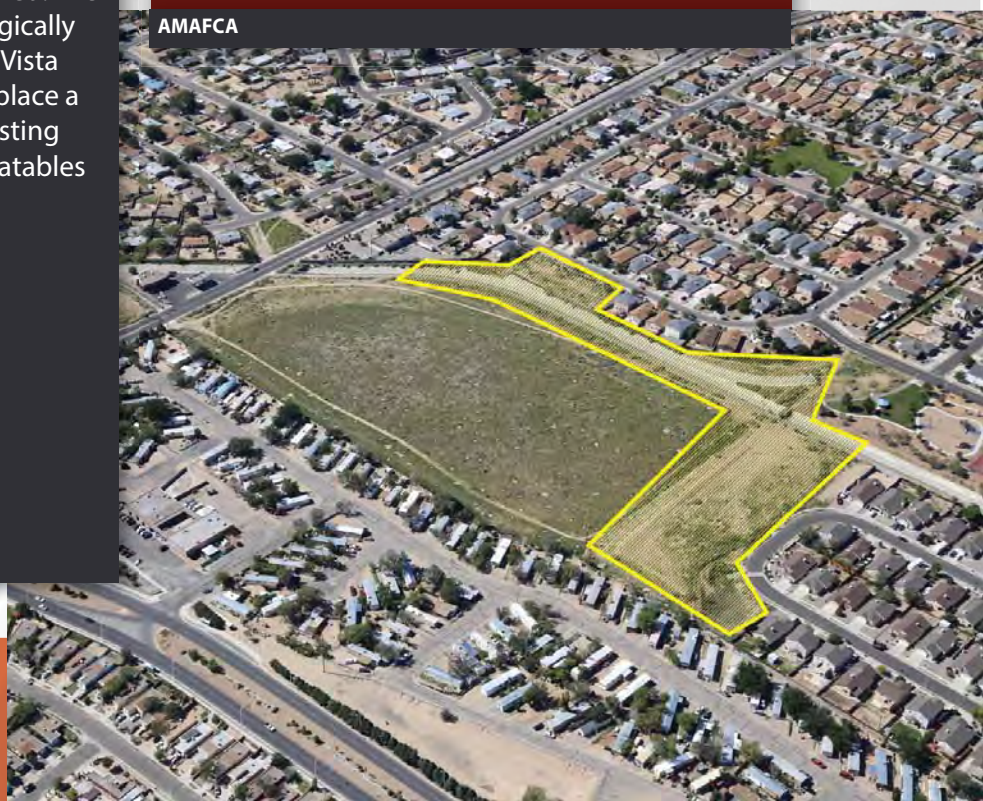
2018	2019	2020	2021	2022	2023
	$100,000				

Description:

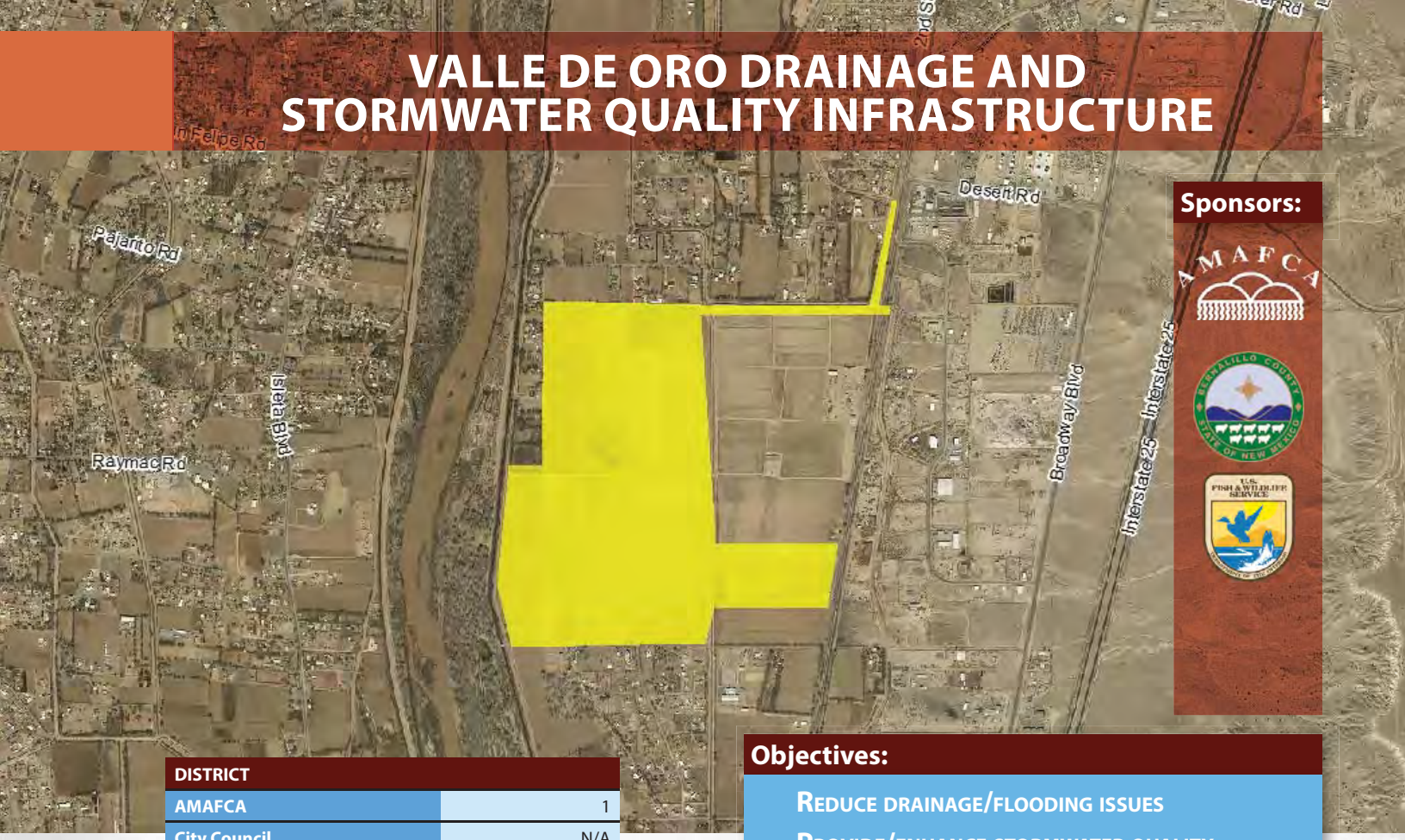
This study will determine the best location/configuration of a structure that will address the hydraulic and water quality issues in the Snow Vista watershed. The Snow Vista watershed is constrained hydrologically due to inefficient capacities within the Snow Vista Channel. This study will determine where to place a detention structure that will optimize the existing capacity and also allow for the removal of floatables and debris from the system.

Stakeholders:

AMAFCA



VALLE DE ORO DRAINAGE AND STORMWATER QUALITY INFRASTRUCTURE



Sponsors:

DISTRICT	
AMAFCA	1
City Council	N/A
County Commission	2
NM Senate	14
NM House	10

Potential AMAFCA Funding: $4,058,000

2018	2019	2020	2021	2022	2023
$100,000	$700,000	$2,250,000	$1,008,000		

Stakeholders:

AMAFCA, MRGCD, BernCo, FWS

Objectives:

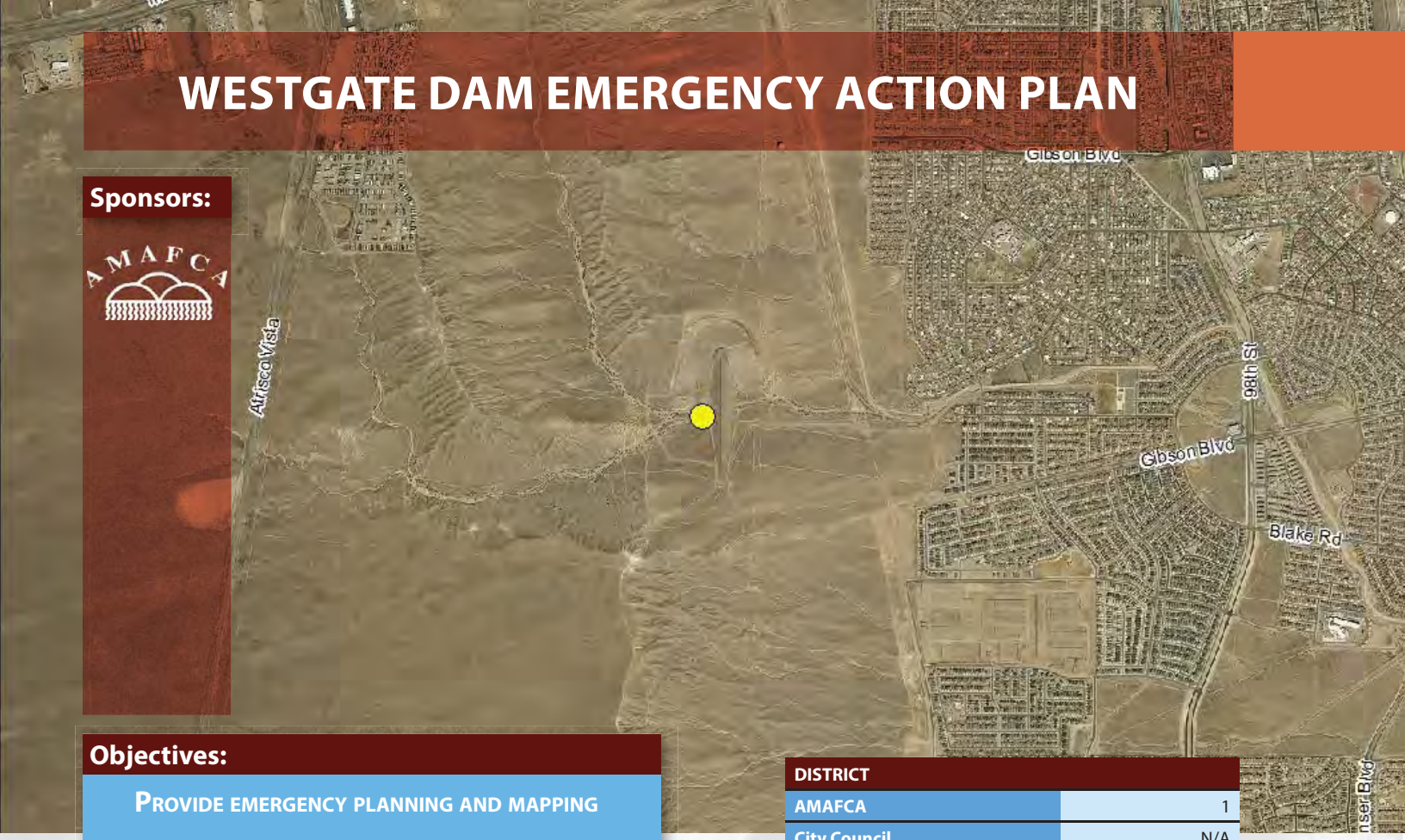
- Reduce drainage/flooding issues
- Provide/enhance stormwater quality

Total Cost: $4,058,000

Description:

This master-planned facility, identified in the Southeast Valley Drainage and Stormwater Quality Management Plan, will require the design and construction of stormwater conveyance and water quality infrastructure to reduce flooding in the southeast valley. The Valle de Oro property is part of the National Wildlife Refuge planned by the U.S. Fish and Wildlife Service and this drainage infrastructure is planned to enhance stormwater quality and attract wildlife at the refuge. The planned infrastructure will convey stormwater runoff from the area east of 2nd Street to the Bosque. Stormwater quality will be enhanced in the facility by reducing the pollutant load before discharging to the Rio Grande. The stormwater infrastructure will be designed to aesthetically match the surrounding landscape to remain consistent with the vision of the refuge.

WESTGATE DAM EMERGENCY ACTION PLAN



Sponsors:

AMAFCA

Objectives:

PROVIDE EMERGENCY PLANNING AND MAPPING

Total Cost: $50,000

DISTRICT	
AMAFCA	1
City Council	N/A
County Commission	2
NM Senate	14
NM House	12

Potential AMAFCA Funding: $50,000

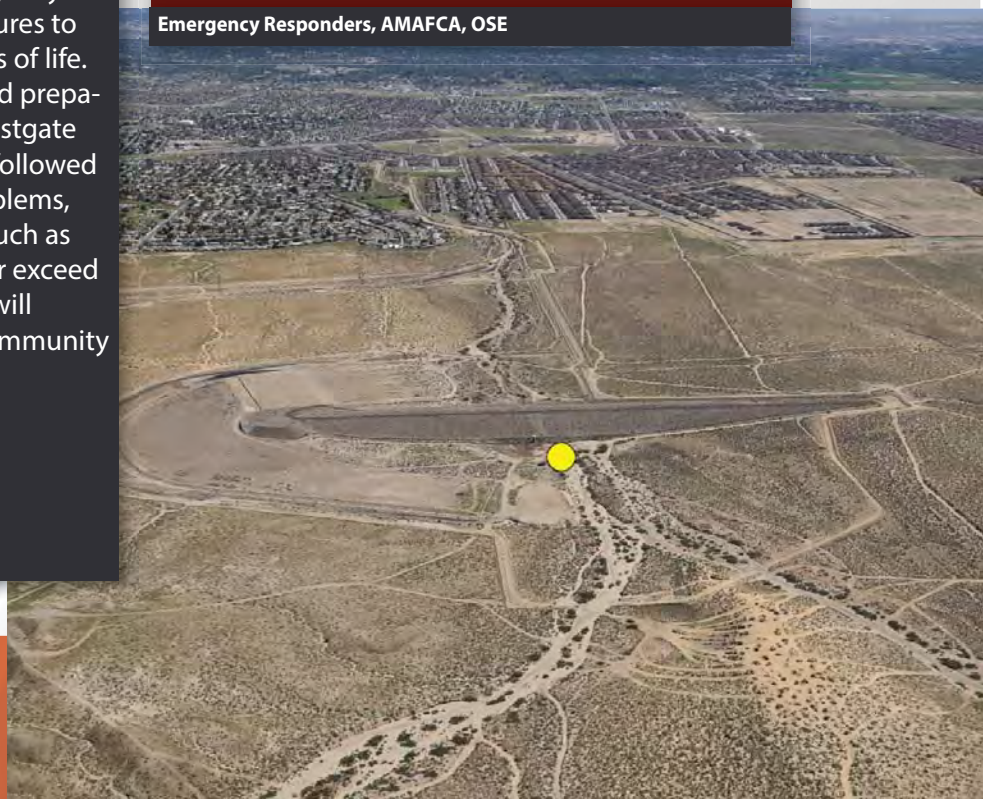
2018	2019	2020	2021	2022	2023
$50,000					

Description:

An Emergency Action Plan (EAP) is a formal plan required by the Office of the State Engineer Bureau of Dam Safety that identifies potential emergency conditions at a dam and outlines the procedures to follow to minimize property damage and loss of life. This project will include the development and preparation of an EAP and inundation maps for Westgate Dam. The EAP will contain procedures to be followed during an emergency, such as structural problems, equipment malfunctions, or natural events such as floods or earthquakes that could approach or exceed the dam design limits. Inundation mapping will outline the evacuation boundaries for the community on a map in the event of a dam failure.

Stakeholders:

Emergency Responders, AMAFCA, OSE



John B. Robert Dam

Project Funding

The following Project Spreadsheet is a snapshot of AMAFCA's intended timeframe to implement projects in the next six years. It is intended to balance with the bond sales and distribute flood-protection projects in all of the various basins in the metropolitan area. It has been coordinated with the schedules of other agencies for the purpose of possible joint funding in order to make the projects more successful. Timeframes can be adjusted as other agency schedules change or projects are re-prioritized.

SPREADSHEET AGENCY LEGEND	
Agency Name	Abbreviation
Albuquerque Metropolitan Arroyo Flood Control Authority	AMAFCA
Albuquerque Public Schools	APS
Bernalillo County	BernCo
Central New Mexico Community College	CNM
City of Albuquerque	CoA
Environmental Protection Agency	EPA
Federal Emergency Management Agency	FEMA
Fish and Wildlife Service	FWS
Kirtland Air Force Base	KAFB
Middle Rio Grande Conservancy District	MRGCD
National Park Service	NPS
New Mexico Office of the State Engineer	OSE
New Mexico Department of Transportation	NMDOT
Southern Sandoval County Arroyo Flood Control Authority	SSCAFCA
U.S. Army Corps of Engineers	COE
University of New Mexico	UNM
Village of Los Ranchos	VLR

Project	Page	Lead Agency	Other Agencies	Total Amount
Alameda Drain Hydraulic Study	17	COA	BernCo, AMAFCA, VLR	$400,000
AMAFCA Telemetry	18	AMAFCA		$ 1,200,000.00
Amole Arroyo Modification	19	AMAFCA		$ 950,000.00
Amole Dam EAP	20	AMAFCA		$ 50,000.00
Amole Dam Gravity Outlet Phase II	21	AMAFCA		$ 671,000.00
Barelas Pump Station Outfall WQ	22	AMAFCA	COA	$ 419,000.00
Black Mesa Phase I Manhole Rehab	23	AMAFCA		$ 1,000,000.00
Black Mesa Pump Station Outfall Upgrade	24	BernCo	AMAFCA	$ 1,014,000.00
Black Mesa Storm Drain (Don Felipe)	25	AMAFCA		$ 4,803,000.00
Black Mesa Storm Drain (McCoy)	26	AMAFCA		$ 3,541,000.00
Browning Drainage Anaheim to Modesto	27	BernCo	AMAFCA	$ 1,200,000.00
Calabacillas Arroyo Bank Monitoring & Enhancement 1	28	AMAFCA		$ 500,000.00
Calabacillas Arroyo Bank Monitoring & Enhancement 2	29	AMAFCA		$ 500,000.00
Calabacillas Arroyo Bank Monitoring & Enhancement 3	30	AMAFCA		$ 500,000.00
Calabacillas Arroyo Bank Monitoring & Enhancement 4	31	AMAFCA		$ 500,000.00
Calabacillas Flow and Sediment Control	32	AMAFCA	SSCAFCA	$ 2,310,000.00
Calabacillas GC1a1 & GC1a Expansion	33	AMAFCA		$ 1,500,000.00
Calabacillas/Corrales SWQ Facility	34	AMAFCA		$ 1,406,000.00
Chamisa Pond Expansion	35	AMAFCA	Private	$ 729,000.00
Corrales Main Diversion	36	AMAFCA		$ 800,000.00
Dallas Surge Pond	37	COA	AMAFCA	$ 400,000.00
GE Pond	38	AMAFCA	COA	$ 4,042,000.00
Gibson/San Mateo Flood Plain Restudy	39	AMAFCA		$ 100,000.00
Gibson/San Mateo Regional Drainage Facility	40	COA	AMAFCA	$ 1,200,000.00
Glendale Storm Drain	41	AMAFCA		$ 2,377,000.00
Glenrio (Loma Hermosa) Feasiblity Study	42	COA		$ 450,000.00
Guac Detention Basin	43	AMAFCA		$ 808,000.00
Hamilton Dam	44	AMAFCA		$ 7,256,000.00
Hubbell Dam EAP	45	AMAFCA		$ 50,000.00
Hubbell Dam Expansion	46	AMAFCA		$ 1,056,000.00
John B. Robert Dam EAP	47	AMAFCA		$ 50,000.00
Karsten Area Restudy	48	AMAFCA		$ 100,000.00
Kinney Dam EAP	49	AMAFCA		$ 50,000.00
Ladera Dams 10,12,14,15 EAP	50	AMAFCA		$ 250,000.00
Las Ventanas Dam WQ Upgrades	51	AMAFCA		$ 425,000.00
Louisiana Gibson Regional Drainage Facility	52	AMAFCA	COA, KAFB	$ 1,481,000.00
Lower Bear Tributary SWQ	53	AMAFCA	COA	$ 400,000.00
Marble/Arno Pond & Pump Station	54	COA		$ 12,000,000.00

AMAFCA Funding	CY 2018	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
$ 50,000.00	$50,000					
$ 1,200,000.00		$400,000		$400,000		$400,000
$ 950,000.00	$450,000	$500,000				
$ 50,000.00	$50,000					
$ 671,000.00	$150,000	$521,000				
$ 209,500.00	$209,500					
$ 1,000,000.00	$100,000	$900,000				
$ 507,000.00		$103,000	$404,000			
$ 4,803,000.00	$200,000	$4,603,000				
$ 3,541,000.00	$150,000		$3,391,000			
$ 600,000.00	$600,000					
$ 500,000.00		$100,000	$100,000	$100,000	$100,000	$100,000
$ 500,000.00	$50,000	$100,000	$100,000	$100,000	$100,000	$50,000
$ 500,000.00	$50,000	$100,000	$100,000	$100,000	$100,000	$50,000
$ 500,000.00	$100,000	$100,000	$100,000	$100,000	$50,000	$50,000
$ 2,310,000.00			$110,000	$1,300,000	$900,000	
$ 1,500,000.00	$1,500,000					
$ 1,406,000.00		$200,000	$1,206,000			
$ 364,500.00	$100,000	$264,500				
$ 800,000.00	$150,000	$650,000				
$ 200,000.00	$200,000					
$ 2,021,000.00	$20,000	$2,001,000				
$ 50,000.00	$50,000					
$ 600,000.00	$600,000					
$ 2,377,000.00	$150,000	$2,227,000				
$ 100,000.00					$100,000	
$ 808,000.00	$600,000	$208,000				
$ 7,256,000.00	$100,000	$906,000	$2,025,000	$1,820,000	$2,405,000	
$ 50,000.00	$50,000					
$ 1,056,000.00	$156,000	$900,000				
$ 50,000.00	$50,000					
$ 100,000.00	$100,000					
$ 50,000.00	$50,000					
$ 250,000.00		$250,000				
$ 425,000.00	$100,000	$325,000				
$ 740,500.00	$740,500					
$ 200,000.00	$200,000					
$ 6,000,000.00	$6,000,000					

Project	Page	Lead Agency	Other Agencies	Total Amount
Max's Inlet Water Quality	55	AMAFCA		$ 745,000.00
McCoy Diversion Channel A	56	AMAFCA		$ 4,053,000.00
McCoy Diversion Channel B	57	AMAFCA		$ 2,372,000.00
McEwen Pond GI/LID Improvements	58	BernCo	AMAFCA	$ 100,000.00
Miscellaneous Construction Projects	59	AMAFCA		$ 2,400,000.00
Miscellaneous Real Estate Acquisition	60	AMAFCA		$ 1,000,000.00
Montaño Levee	61	COA		$ 5,141,000.00
North Albuquerque Acres/Sandia Heights Floodplain Study	62	AMAFCA	BernCo	$ 200,000.00
North Camino Arroyo DMP	63	AMAFCA		$ 200,000.00
North Diversion Channel Outfall SWQ (Debris Fence)	64	AMAFCA		$ 1,037,000.00
North Diversion Channel Outfall SWQ (Floating Boom)	65	AMAFCA		$ 976,000.00
North Diversion Channel Overlay	66	AMAFCA		$ 6,000,000.00
North Diversion Channel/Indian School WQ Pond	67	AMAFCA		$ 2,521,000.00
North Domingo Baca Dam EAP	68	AMAFCA		$ 50,000.00
North Geologic Window Dam	69	AMAFCA		$ 4,084,000.00
North Johniece Storm Drain	70	AMAFCA		$ 3,764,000.00
North Valley DMP	71	AMAFCA		$ 200,000.00
Ortega-Garduno Storm Drain	72	BernCo	AMAFCA	$ 2,587,000.00
Paradise West Dam	73	AMAFCA		$ 1,187,000.00
Piedras Marcadas Outfall	74	AMAFCA		$ 8,279,000.00
Pino Dam Emergency Spillway Modifications	75	AMAFCA		$ 3,826,000.00
South Diversion Channel Access Project	76	AMAFCA		$ 150,000.00
South Diversion Channel Freeboard Improvements	77	AMAFCA		$ 419,000.00
South Diversion Channel Outfall WQ	78	AMAFCA		$ 1,134,000.00
South Domingo Baca Dam EAP	79	AMAFCA		$ 50,000.00
South Domingo Baca Diversion Extension (Hawks Landing)	80	Private	AMAFCA	$ 1,275,000.00
South Johniece Storm Drain	81	AMAFCA		$ 632,000.00
South Pino Bank Monitoring & Enhancement	82	AMAFCA		$ 200,000.00
Swinburne Dam Regional WQ & Sediment Facility	83	AMAFCA		$ 1,900,000.00
Tijeras Sediment Facility Phase II	84	AMAFCA		$ 2,885,000.00
Upper Bear Tributary SWQ	85	AMAFCA	COA	$ 200,000.00
Upper Calabacillas Facility Plan	86	AMAFCA	SSCAFCA	$ 250,000.00
Upper Piedras Marcadas Pond	87	AMAFCA	COA	$ 3,945,000.00
Upper Snow Vista Channel Improvements Study	88	AMAFCA		$ 100,000.00
Valle de Oro Pond & WQ Facility	89	AMAFCA		$ 4,058,000.00
Westgate Dam EAP	90	AMAFCA		$ 50,000.00
			Grand Total	$ 124,458,000.00

AMAFCA Funding	CY 2018	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023
$ 745,000.00						$745,000
$ 4,053,000.00			$250,000	$3,803,000		
$ 2,372,000.00			$150,000	$2,222,000		
$ 25,000.00	$25,000					
$ 2,400,000.00	$400,000	$400,000	$400,000	$400,000	$400,000	$400,000
$ 1,000,000.00	$500,000	$250,000	$250,000			
$ 1,000,000.00	$1,000,000					
$ 100,000.00	$100,000					
$ 200,000.00			$200,000			
$ 1,037,000.00	$200,000	$837,000				
$ 976,000.00		$150,000	$826,000			
$ 6,000,000.00	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
$ 2,521,000.00			$150,000	$1,300,000	$1,071,000	
$ 50,000.00	$50,000					
$ 4,084,000.00	$25,000		$200,000	$50,000	$50,000	$3,759,000
$ 1,882,000.00			$150,000	$1,732,000		
$ 200,000.00		$200,000				
$ 500,000.00	$500,000					
$ 1,187,000.00		$50,000	$200,000	$937,000		
$ 8,279,000.00				$200,000	$4,000,000	$4,079,000
$ 3,826,000.00				$250,000	$2,570,000	$1,006,000
$ 150,000.00			$150,000			
$ 419,000.00				$100,000	$319,000	
$ 1,134,000.00					$250,000	$884,000
$ 50,000.00	$50,000					
$ 40,000.00	$40,000					
$ 316,000.00			$75,000	$241,000		
$ 200,000.00	$50,000	$50,000	$50,000	$50,000		
$ 1,900,000.00		$150,000	$500,000	$1,250,000		
$ 2,885,000.00	$2,885,000					
$ 100,000.00	$100,000					
$ 250,000.00		$250,000				
$ 1,972,500.00	$150,000	$622,000	$1,200,500			
$ 100,000.00		$100,000				
$ 4,058,000.00	$100,000	$700,000	$2,250,000	$1,008,000		
$ 50,000.00	$50,000					
$ 100,357,000.00	$20,301,000	$20,117,500	$15,537,500	$18,463,000	$13,415,000	$12,523,000

Albuquerque Metropolitan Arroyo Flood Control Authority

2600 Prospect Avenue NE
Albuquerque, NM 87107
Voice: 505-884-2215
FAX: 505-884-0214
www.amafca.org

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