

# 2019 Annual Report





## **Southern Sandoval County Arroyo Flood Control Authority**

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April 25, 2019

The Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA) is very pleased to be able to provide this booklet for you and your staff. The booklet contains an update on flood control projects and initiatives that are currently the focus of our organization.

We have included a summary of all the projects that have received, or are in the process of receiving, the benefit of federal funding, as well as a list of other projects that remain unfunded at the present time. We are very grateful for the federal support that has allowed these projects to move forward and we are pleased to be able to show you the progress we have made on those projects.

I hope that you find the information in this booklet informative and useful. As always, if you would like further detail or information on any of the enclosed materials, we are available for further discussion.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael Obrey".

Michael Obrey  
Chairman, Board of Directors  
SSCAFCA





## **Southern Sandoval County Arroyo Flood Control Authority**

*Flood Control Today - for a Safe Tomorrow*



### **What is the Southern Sandoval County Arroyo Flood Control Authority?**

The Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA) is an independent corporate political body with an elected board empowered to undertake the acquisition, improvement, maintenance and operation of flood and storm water control facilities on streams and watersheds which enter, originate or cross the Authority's facilities. SSCAFCA was established in 1990 by New Mexico Statute Section 72-19-1 through 72-19-103.





## Southern Sandoval County Arroyo Flood Control Authority

### THE MISSION OF SSCAFCA IS TO:

Protect citizens and property by implementing proven flood control solutions that:

- Manage our watersheds prudently for future generations
- Enhance the Quality of Life
- Create the most appealing multi-use facilities
- Set an example of quality, integrity, leadership, and professionalism
- Educate the public concerning flood hazards
- Administer public funds prudently

### SSCAFCA Goals and Commitments:

GOAL #1: To provide flood protection up to the 100 year storm for the public health, safety and welfare of residents and properties within its boundaries.

GOAL #2: To recognize the value of land purchased or controlled for floodways as areas with multi-use potential.

GOAL #3: To reduce sediment and erosion within the boundaries of the flood control authority.

GOAL #4: To assist in the coordination of flood control with other entities for the common good of the public.

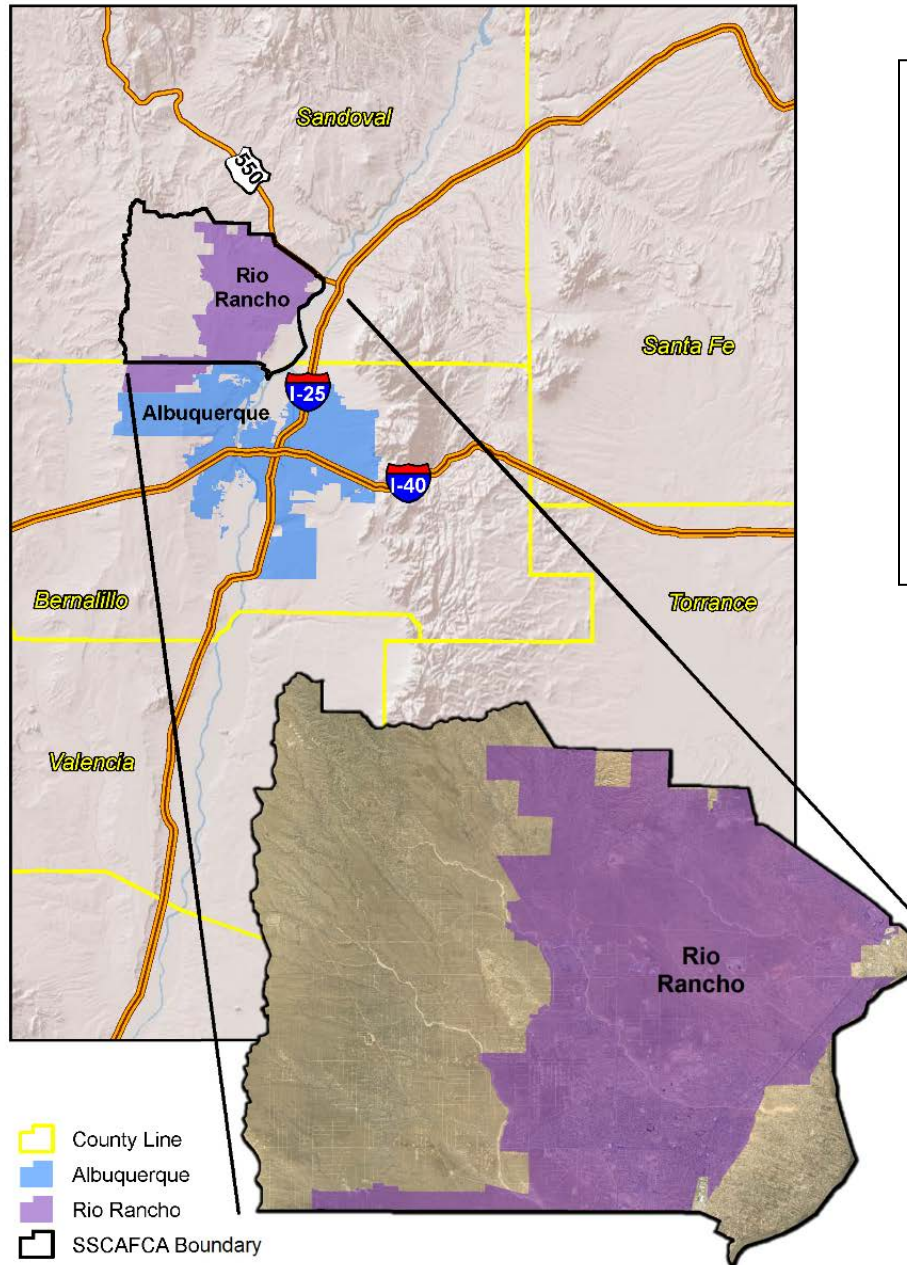


### Unique Features of SSCAFCA's Jurisdiction:

#### Natural Arroyo Systems

- Increased sediment and erosion
- Lateral channel movement
- Slower moving stormwater
- Improved Wildlife Habitat and corridors
- Opportunity for Multi-use facilities





SSCAFCA Location Map

SSCAFCA's has over 510,000 feet of channel in its jurisdiction and of that only 7% or approximately 33,103 feet is hard-lined channel. The majority of SSSAFCA's water conveyance systems are natural sandy sided and sandy bottom arroyos. Natural arroyos allow for infiltration of rain and snow melt into the ground with the possibility of recharging the aquifer. Another advantage of a natural arroyo is the reduced speed at which the stormwater travels down the arroyo unlike a hard-lined channel. On sunny days, citizens can enjoy taking a hike in an arroyo or spend time at a multi-use facility where soccer fields reside in a dam basin. Natural arroyos provide habitat to a wide variety of species, including burrowing owls, pictured here, along with corridors for wildlife to travel.



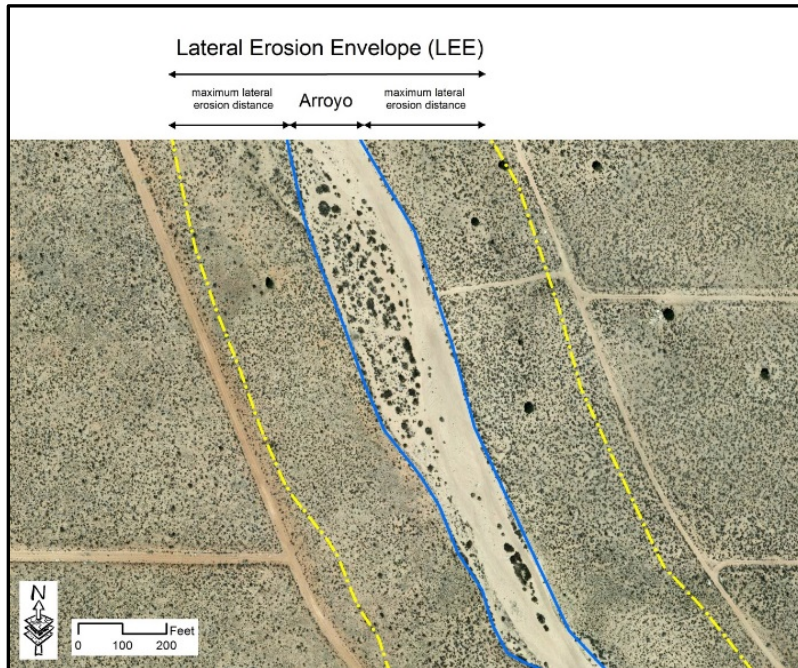




## Southern Sandoval County Arroyo Flood Control Authority

### Erosion Hazards:

Although the natural arroyos have many benefits for the community, storm flows will contain large amounts of sediment. The sediment can quickly clog culverts and crossing structures expanding the flooded area. Rapidly moving stormwater has undercut roads and culverts impacting infrastructure. SSCAFCA has established a Lateral Erosion Envelope (LEE Line), similar to the FEMA Erosion Hazard Area, adapted to our arid environment, to protect citizens from building too close to the edge of an arroyo.



See Appendix A for detailed maps of our watersheds and flood control assets.  
Additional information is available at our website – [www.sscafca.org](http://www.sscafca.org).





## ***Federal Funding – Local Benefits***

### **Executive Summary:**

Since 2012, the Southern Sandoval County Arroyo Flood Control Authority has completed several projects that have benefited from federal funding with additional projects that are funded and are currently in design or construction. These projects would not have been possible to complete within this timeframe without the inclusion of federal funding and we feel that it is important to let all of our federal partners know of the success that we have achieved by working together. In order to achieve the milestones that we have accomplished so far, we have taken a strategic approach to project funding and development which is based on three guiding principles:

1. **Be Prepared.** Before we seek funding to complete a project, SSCAFCA completes a detailed plan of the project, sometimes including a full design. This includes completing a cost-benefit analysis to verify that the benefit provided by the project will exceed the cost of development.
2. **Engage our Community.** Whether it is ensuring we have met with local residents or working with other state and local partners to secure matching funds, we want to make sure we are proceeding with a project that is fully funded and has broad local support.
3. **Be Efficient.** In today's economy, we understand that every dollar, federal or otherwise, is a precious resource and we strive to ensure the funding is spent in a timely and effective manner. For the list of projects included in this report, ***the average time for SSCAFCA to take a project from grant award to completion is only 21.5 months, less than two years.*** We feel this demonstrates the success of our strategic approach.

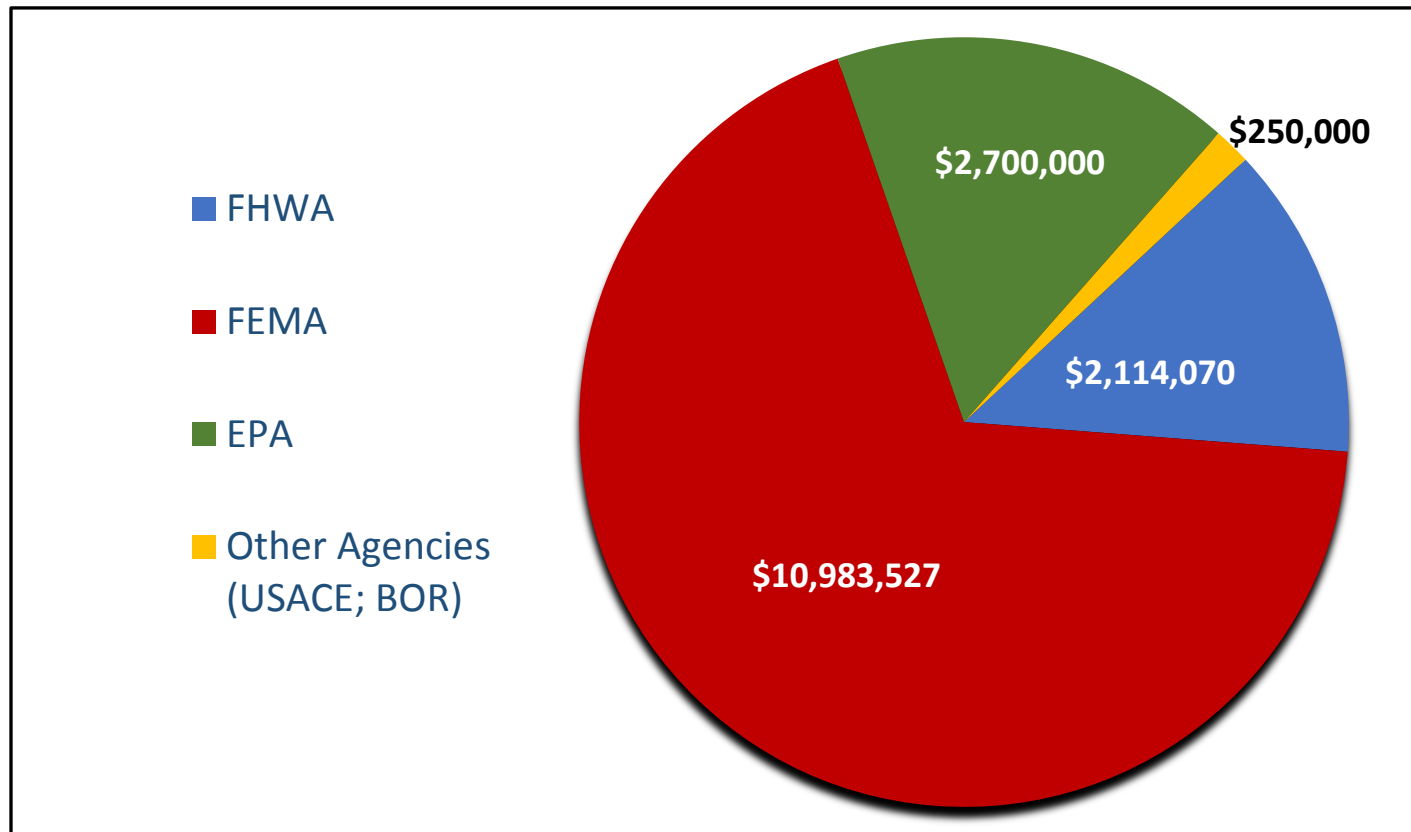
In addition to providing details of the flood control projects that SSCAFCA has successfully advanced using federal partnership, we have also provided three graphics on the following page showing where we have achieved these partnerships and, more globally, showing why it is critical to SSCAFCA that these partnerships with federal agencies continue.





## Federal Fund Portfolio (2012 – 2019)\*

*\*Includes recently awarded projects and in-kind services*





## Southern Sandoval County Arroyo Flood Control Authority - Funded Projects

Project Name	Federal Fund Source	Federal Share	Project Cost	Award Date	Completion Date	Project Status
Lower Montoyas Water Quality Improvements	EPA Clean Water State Revolving Fund	\$2,000,000	\$2,138,190	3/5/2013	10/7/2015	COMPLETE
Harvey Jones Channel Improvements	FHWA Transportation Improvement Program	\$600,000	\$1,343,330	10/9/2013	5/22/2015	COMPLETE
Black Arroyo Bridge & Trails, Phase 1	FHWA Transportation Alternative Program	\$620,480	\$1,115,036	8/8/2014	4/13/2016	COMPLETE
Alberta Road Drainage Improvements	FEMA Hazard Mitigation Grant	\$1,171,445	\$1,811,422	2/4/2015	3/31/2017	COMPLETE
Black Arroyo Bridge & Trails, Phase 2	FHWA Transportation Alternative Program	\$351,422	\$469,703	9/11/2015	8/8/2017	COMPLETE
Montoyas Bank Stabilization	FEMA Hazard Mitigation Grant	\$274,538	\$472,131	9/15/2015	7/15/2016	COMPLETE
Lisbon Channel Access and Trail Improvements	FHWA Transportation Alternative Program	\$542,168	\$689,501	3/1/2017	10/9/2018	COMPLETE
Natural Playa Preservation	EPA Clean Water State Revolving Fund	\$700,000	\$700,000	10/11/2016	N/A	ACTIVE
Lomitas Negras Flood Control, Phase 2	FEMA Hazard Mitigation Grant	\$4,064,881	\$5,419,841	3/15/2017	N/A	ACTIVE
Cactus Ponds Flood Control	FEMA Pre-Disaster Mitigation	\$1,405,805	\$1,874,407	2/2/2018	N/A	DESIGN
Lisbon Dam & Channel Improvements	FEMA Hazard Mitigation Grant	\$1,221,253	\$1,744,648	3/1/2018	N/A	DESIGN
Upper Bosque de Bernalillo	FEMA Pre-Disaster Mitigation	\$395,605	\$527,473	Pending	N/A	PENDING
Lisbon Dam & Channel Improvements, Ph. 2	FEMA Hazard Mitigation Grant	\$2,450,000	\$3,062,500	Pending	N/A	PENDING

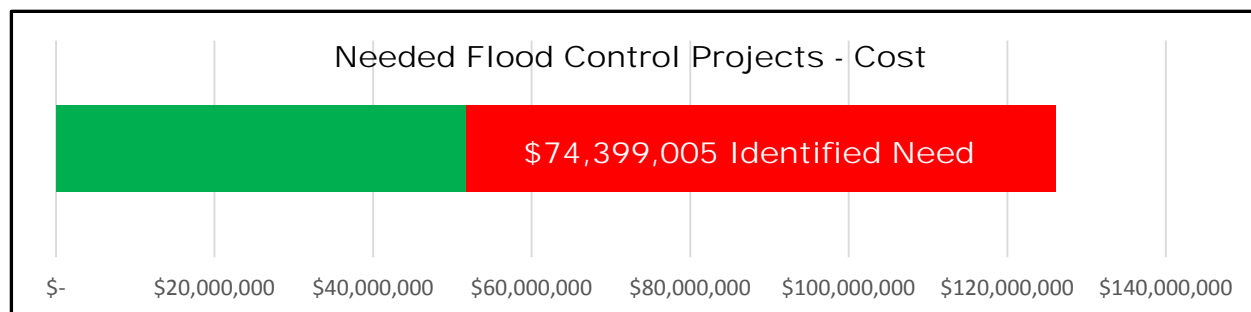
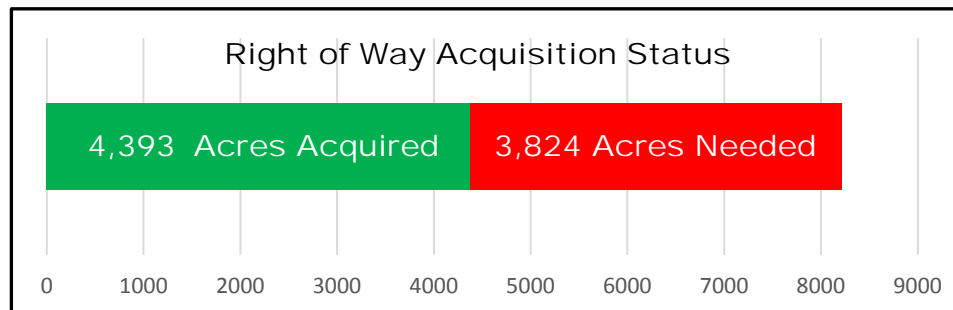


## ***Future Projects***

As noted earlier in this document, SSCAFCA came into existence in 1990. Although we have been able to accomplish a significant amount of flood control improvements, the local communities began developing decades, and in some cases centuries, before our arrival. This has left SSCAFCA in the unenviable position of trying to retrofit needed drainage improvements into the existing communities as well as planning for future growth.

The following charts identify SSCAFCA's current status in terms of acquiring both the property needed for our projects and completing all of the flood control projects that we have identified as critical to ensure protection of the citizens, property and infrastructure within our jurisdiction.

At an average cost of \$10,000 per acre, the right of way needs currently total almost \$40 million alone. The base cost of the right of way combined with the funding needed for flood control projects, brings our total fiscal need for the next 15-20 years to over \$115 million, far beyond the limited bonding capacity authorized by law for our agency, which currently only generates approximately \$2 million annually for capital projects.





## Southern Sandoval County Arroyo Flood Control Authority - Future Needs

Project Name	Description	Estimated Project Cost	Funding Application
Lower Montoyas Arroyo Bank Stabilization	Construct bank protection for 3,000 linear feet of the Montoyas Arroyo and protect the City of Rio Rancho primary wastewater treatment plant from flows exceeding 9,000 CFS.	\$4,105,000	FEMA PDM 2018
Lower Venada Arroyo Bank Stabilization	Construct bank and levee protection to protect over 1,000 existing and future homes from flooding and damage from erosion.	\$4,475,000	EPA CWSRF 2019
Arroyo Access & Trails System	Acquisition and conservation of over 87 miles of arroyo bank to be used as access and for recreational trail sysms, connecting the high mesa with the Rio Grande.	\$10,153,000	EPA CWSRF 2019
Industrial Park Water Quality Facility	Construct a pre-treatment facility for stormwater that flows through an industrial park to provide mitigation for a wide range of possible contaminants.	\$1,356,000	NRCS WFPO
Black Arroyo Wildlife Park Dam	Construct an off-channel flow reduction facility to protect downstream infrastructure including the Rust Medical Hospital.	\$5,330,000	N/A
City Center Dam & Multi-Sport Facility	Construct a 650 acre-foot detention facility with dual use as multi=sport facility for youth sports.	\$8,100,000	N/A
Badger Dam	Construct a detention facility to protect downstream infrastructure.	\$1,670,000	N/A
Unser Dam	Construct a detention facility to protect downstream infrastructure and provide trail connectivity to a 1,000+ home subdivision.	\$1,270,000	N/A
Venada Water Quality Facility	Provide a series of off-channel flow reduction and debris removal facilities to protect downstream infrastructure and provide water quality.	\$2,325,000	N/A
North Hills Water Quality Facility	Construct an off-channel detention facility to reduce downstream flows and act as a multi-use facility for recreational activities.	\$5,419,841	N/A



Southern Sandoval County Arroyo Flood Control Authority

## *Lomitas Negras Flood Control Phase 2*

**Under construction and proceeding. The expected completion date is November of 2019.**



Figure 1 - Off Channel Facility upstream of Saratoga Rd..





## *Lomitas Negras Flood Control Phase 2*



Figure 2 - Sediment disposal and channel stabilization downstream of Saratoga Rd.





## Lisbon Flood Prevention Project

Original Scope Bidding. Seeking funding extension for scope expansion.

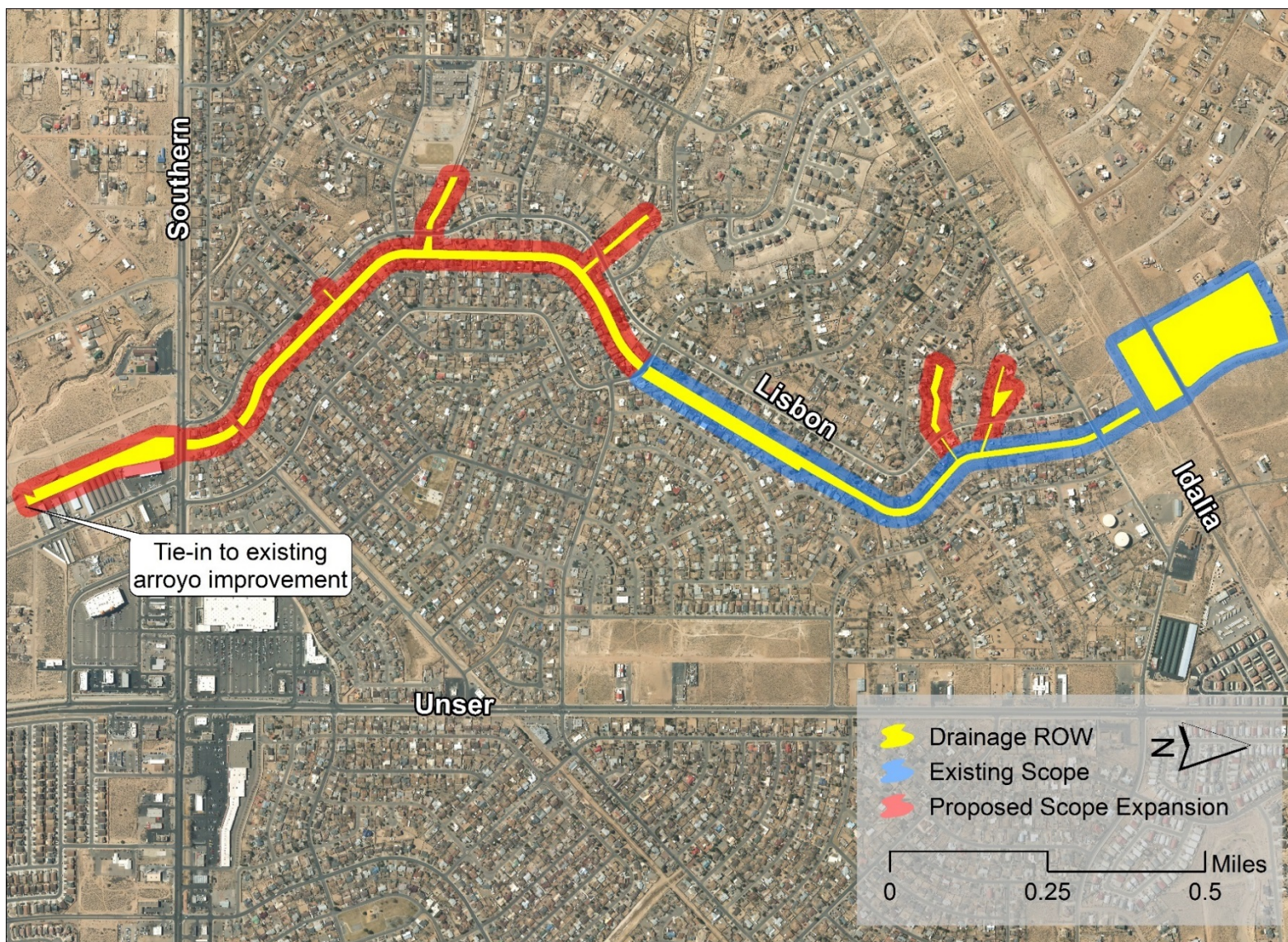


Figure 3 - Schematic of current project scope and proposed extension.





## Lisbon Flood Prevention Project

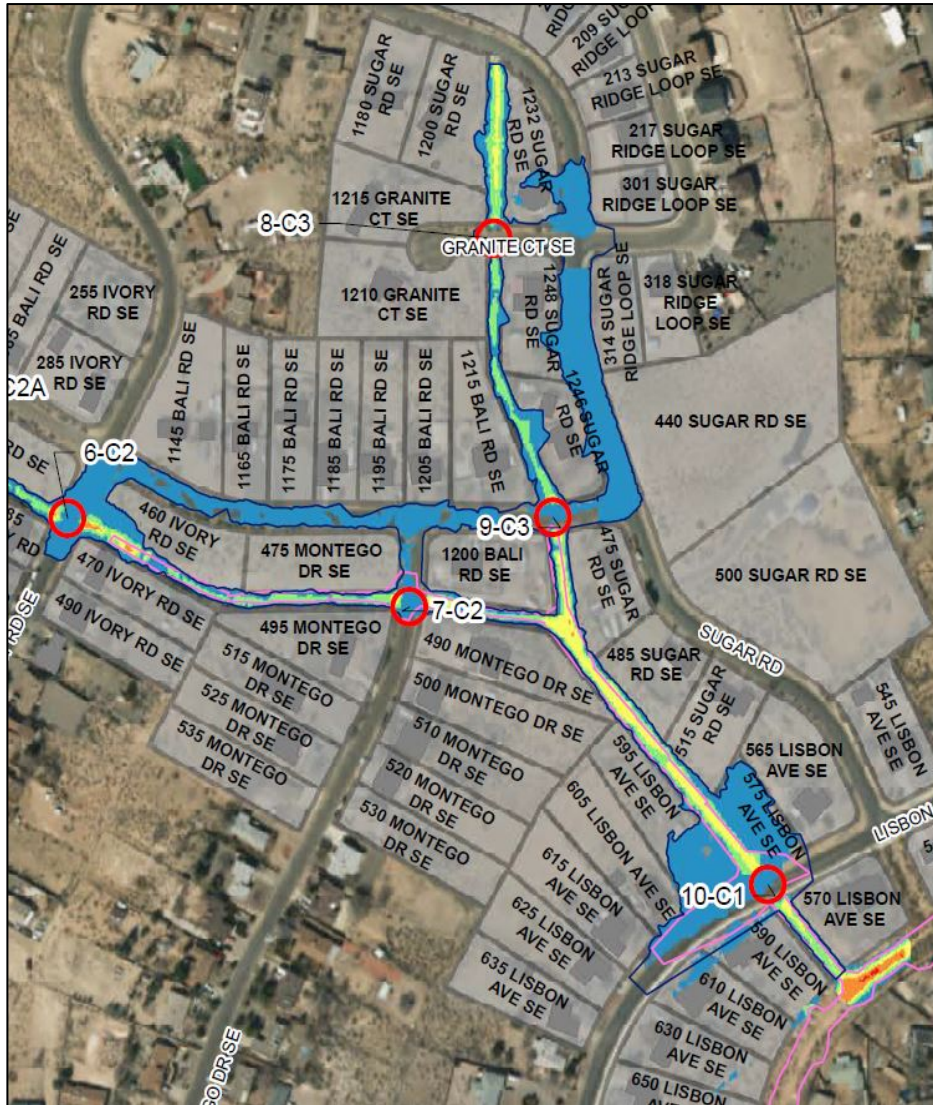


Figure 4 - Excerpt of Inundation analysis and photo of erosion damage showing need for project extension.





## Lower Montoyas Bank Stabilization Project

Application for funding submitted under the 2018 Pre-Disaster Mitigation Program

Conceptual Design Layout for Montoyas Arroyo Improvements east of NM528

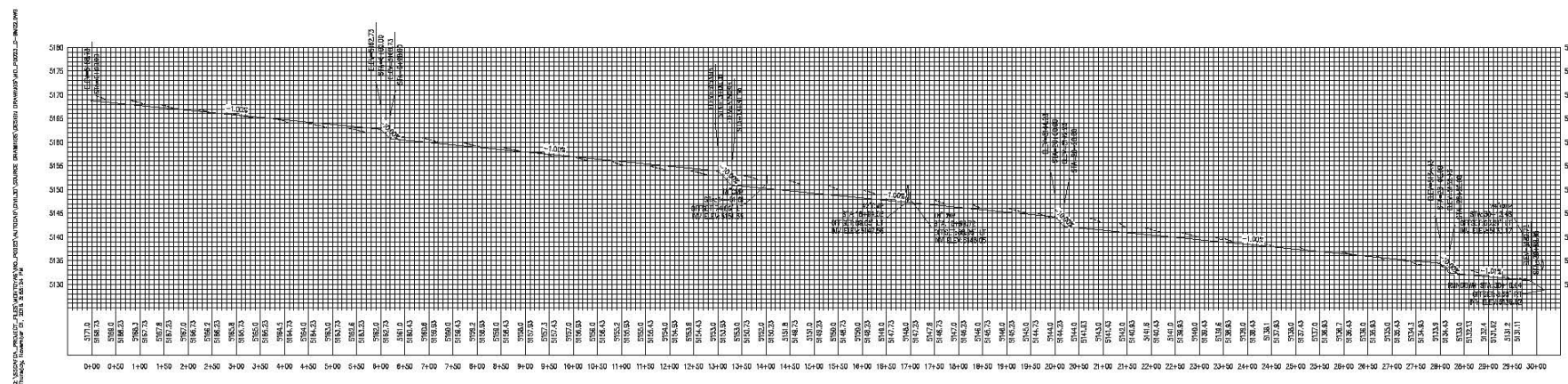
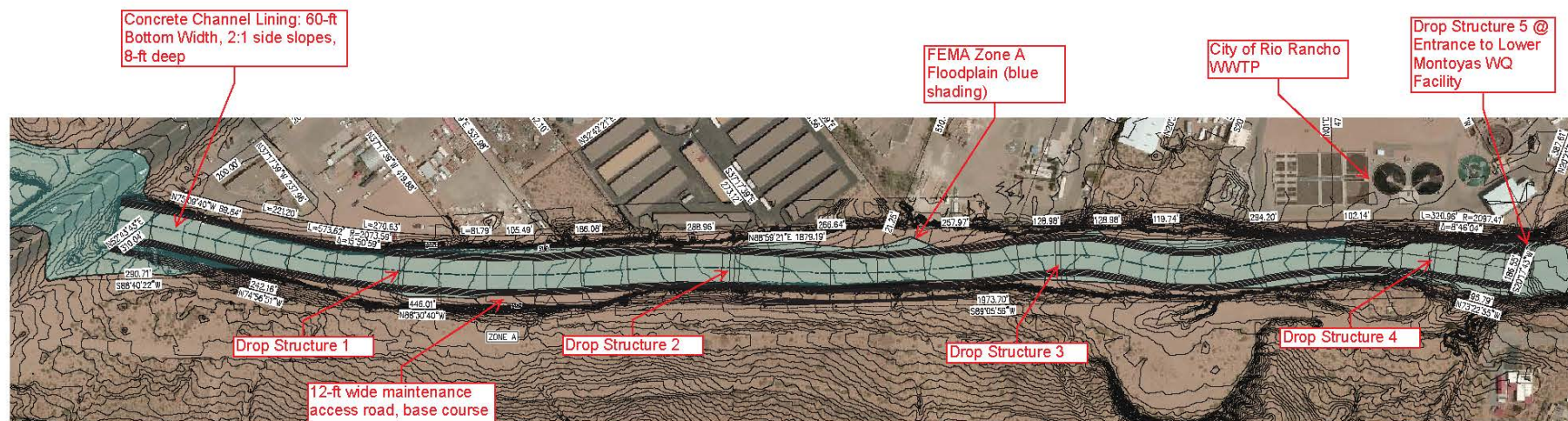


Figure 5 - Conceptual design for bank stabilization.





## *Lower Montoyas Bank Stabilization Project*



Figure 6 - Photos showing erosion cut towards headworks of WWTP.

# APPENDIX A





Drainage ROW

- SSCAFCA Fee Simple
- SSCAFCA Easement

Arroyo

Hardened Channel

- Other
- SSCAFCA

Soft Channel

- Other
- SSCAFCA

Stormdrain

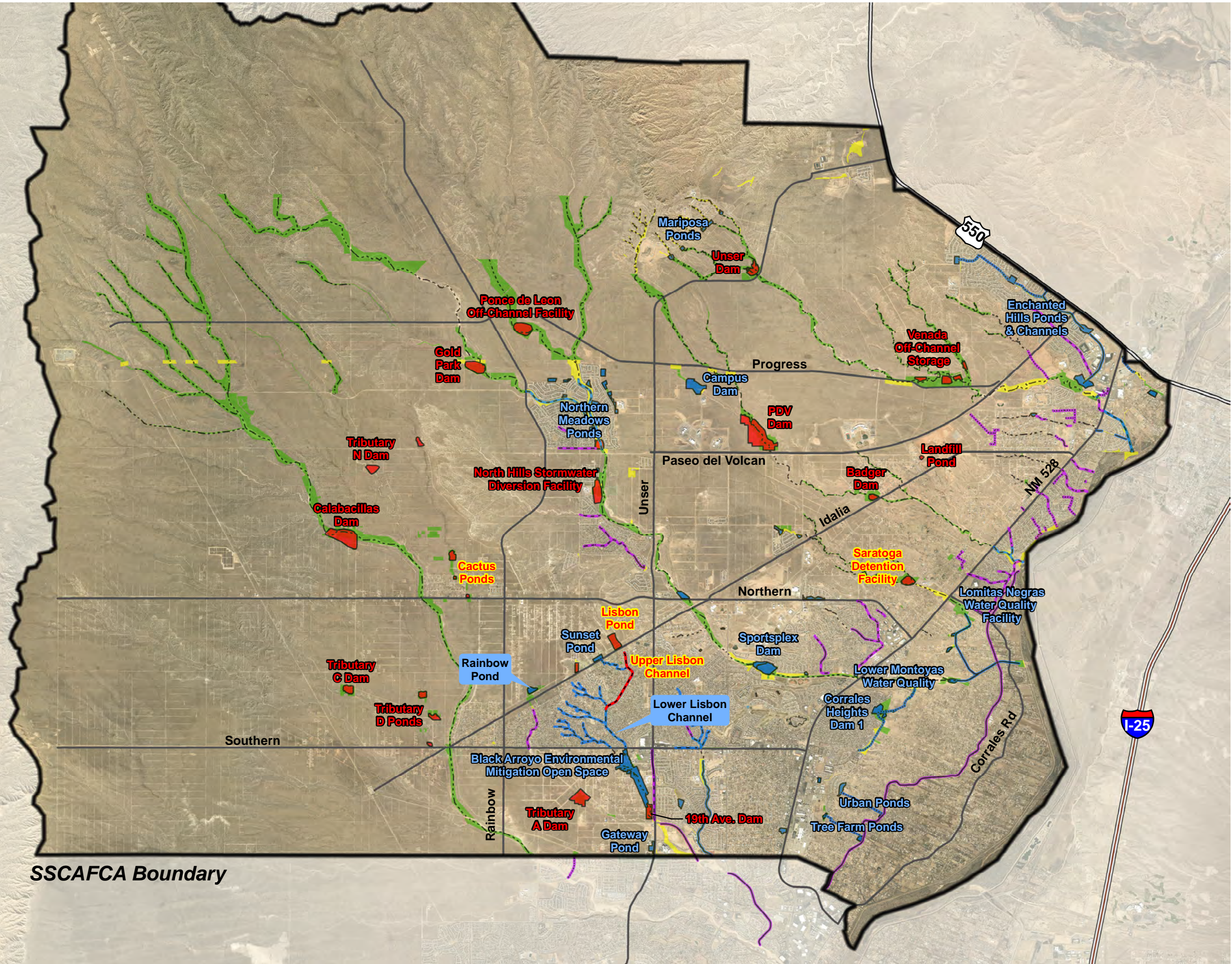
- Other
- SSCAFCA

Pond/Dam

- SSCAFCA, existing
- SSCAFCA, proposed

Completed in FY 2018

Project in progress



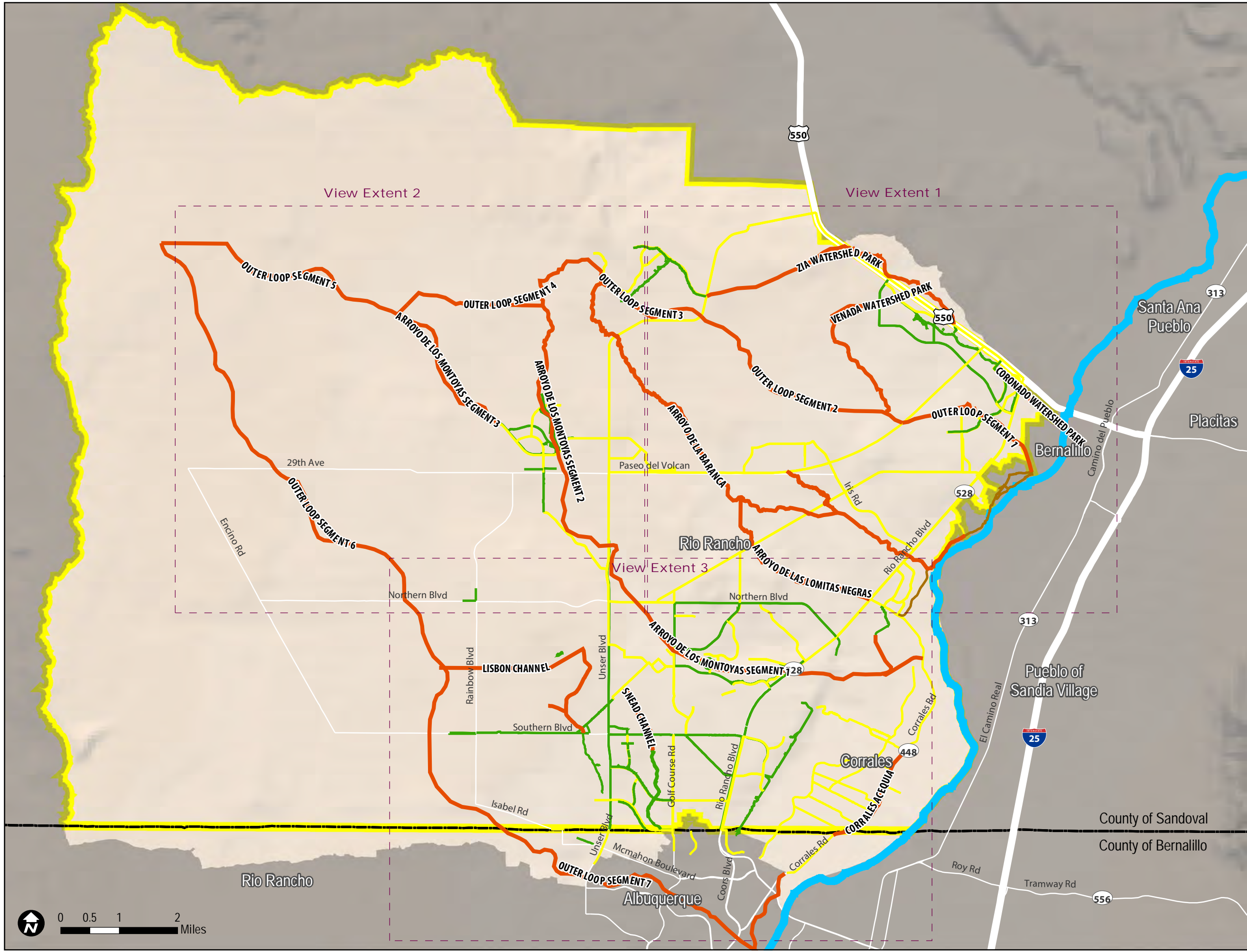
SSCAFCA Boundary



**Figure 3-1  
Proposed Trails**

**Legend**

- Proposed Trail
- Existing Bike Lane and/or Route
- Existing Unpaved Multi-Use Trail
- Existing Paved Multi-Use Trail
- Rio Grande
- County Boundary
- SSCAFCA Service Area
- View extents shown in Figures 3-2 through 3-4







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