

**NOTICE OF OPEN MEETING OF THE SAN ANTONIO REGIONAL FLOOD  
PLANNING GROUP**

Region 12

03/17/2025

2:00 PM

TAKE NOTICE that a meeting of the San Antonio Regional Flood Planning Group as established by the Texas Water Development Board will be held on Monday, March 17, 2025, at 2:00 PM, in-person at the San Antonio River Authority, located at 100 E. Guenther St and virtually at <https://meet.goto.com/903492573>.

**Agenda:**

1. (2:00 PM) Roll Call
2. Public Comments – limit 3 minutes per person
3. Approval of the Minutes from the Previous San Antonio Regional Flood Planning Group Meeting
4. Communications from the Texas Water Development Board (TWDB)
5. Chair Report
6. Discussion and Appropriate Action to Authorize the Planning Group Sponsor to negotiate and execute an amendment to the contract with TWDB and to execute an amendment to the subcontract with HDR to extend the interim submittal deadlines for the 2028 Regional Flood Plan
7. Discussion and Appropriate Action to Adopt an Amendment to the 2023 San Antonio Regional Flood Plan
8. Update on Technical Consultant Work and Schedule
9. Public Comments – limit 3 minutes per person
10. Date and Potential Agenda Items for Next Meeting
11. Adjourn

If you wish to provide written comments prior to or after the meeting, please email your comments to [khayes@sariverauthority.org](mailto:khayes@sariverauthority.org) or physically mail them to the attention of Kendall Hayes at San Antonio River Authority, 100 E. Guenther St., San Antonio, TX, 78204 and include “Region 12 San Antonio Regional Flood Planning Group Meeting” in the subject line.

Additional information may be obtained from: Kendall Hayes, (210) 302-3641, [khayes@sariverauthority.org](mailto:khayes@sariverauthority.org), San Antonio River Authority, 100 E. Guenther St., San Antonio, TX, 78204.

**AGENDA ITEM NO.3 – APPROVAL OF THE MINUTES FROM  
THE PREVIOUS SARFPG MEETING**

**Meeting Minutes**  
**San Antonio Regional Flood Planning Group Meeting**  
**Thursday, February 13, 2025**  
**2:00 PM**  
**San Antonio River Authority**

**Roll Call:**

<u>Voting Member</u>	<u>Interest Category</u>	<u>Present (x) /Absent ( ) / Alternate Present (*)</u>
Brian Yanta	<i>Agricultural interests</i>	
David Wegmann	<i>Counties</i>	X
Deborah (Debbie) Reid	<i>Environmental interests</i>	X
Nefi M. Garza	<i>Flood districts</i>	X
Cara C. Tackett	<i>Industries</i>	
Jeffrey Carroll	<i>Municipalities</i>	X
Sabrina Santiago	<i>Municipalities</i>	X
Suzanne B. Scott	<i>Nonprofit</i>	X
John Paul Beasley	<i>Public</i>	
Derek Boese	<i>River authorities</i>	X
Jose Reyes	<i>Small Business</i>	X
David Mauk	<i>Water districts</i>	X
Donovan Burton	<i>Water Utilities</i>	X

<u>Non-voting Member</u>	<u>Agency</u>	<u>Present(x)/Absent( )/ Alternate Present (*)</u>
Carly Rotzler	Texas Parks and Wildlife Department	X
Fernando Perez	Texas Division of Emergency Management	X
Jami McCool	Texas Department of Agriculture	X
Jarod Bowen	Texas State Soil and Water Conservation Board	X
Kris Robles	General Land Office	X
Tressa Olsen	Texas Water Development Board (TWDB)	X
Susan Roberts	Texas Commission on Environmental Quality	

**Quorum:**

Quorum: **Yes**

Number of voting members or alternates representing voting members present: **10**

Number required for quorum per current voting positions of 13: 7

*All meeting materials are available for the public at: <http://www.region12texas.org>.*

**AGENDA ITEM NO.1: ROLL CALL**

Ms. Kendall Hayes, San Antonio River Authority, called the role and confirmed a quorum.

**AGENDA ITEM NO.2: PUBLIC COMMENT – LIMIT 3 MINUTES PER PERSON**

No public comments.

**AGENDA ITEM NO.3: APPROVAL OF THE MINUTES FROM THE PREVIOUS SAN ANTONIO REGIONAL FLOOD PLANNING GROUP MEETING (REGION 12)**

Mr. Burton motioned to approve the minutes. Ms. Reid seconded the motion, motion passed.

**AGENDA ITEM NO.4: COMMUNICATIONS FROM THE TEXAS WATER DEVELOPMENT BOARD (TWDB)**

Ms. Tressa Olsen provided an update from TWDB. TWDB has hosted several webinars and calls with technical consultants and sponsors. The Board has also approved a change in deliverable deadlines as a result of delayed data. The deliverable dates for the Technical Memorandum, the List of FMEs to be performed by TWDB, and the Draft Plan have been delayed.

**AGENDA ITEM NO.5: CHAIR REPORT**

Chair Boese reviewed regionally specific data from TWDB’s 2024-2025 Flood Infrastructure Fund Project Prioritization List for FMPs and FMEs. He also mentioned the importance of advocacy in the state legislature for additional funding for flood control projects.

**AGENDA ITEM NO.6: TECHNICAL COMMITTEE UPDATE**

Mr. Wegmann provided an update from the Technical Committee’s January meeting and their recommendation on the next agenda item.

**AGENDA ITEM NO.7: DISCUSSION AND APPROPRIATE ACTION TO PROCEED WITH AN AMENDMENT TO THE REGION 12 2023 REGIONAL FLOOD PLAN TO BE REVIEWED BY TWDB BY THE APRIL 1, 2025, DEADLINE**

Mr. Ron Branyon, HDR, and the technical consultant team reviewed the received amendment proposals and their tiered approach to reviewing each item. The Technical Committee has recommended proceeding with the proposed amendments in accordance with today’s material.

Discussion ensued regarding the availability of data and the structure of BCA calculations.

Ms. Reid motioned to authorize the technical consultants to proceed with an amendment to the Region 12 2023 Regional Flood Plan to be reviewed by TWDB by the April 1, 2025, deadline. Mr. Wegmann seconded the motion, motion passed.

**AGENDA ITEM NO.8: DISCUSSION AND APPROPRIATE ACTION REGARDING SOLICITING FOR THE EXISTING VACANCY IN THE ELECTRIC GENERATING UTILITIES INTEREST GROUP**

Ms. Doris Cooksey has retired from CPS Energy. As the Texas Administrative Code requires a representative of an Electric Generating Utility to sit on the RFPG as a voting member, the RFPG must fill the existing vacancy. Chair Boese and the RFPG thanked Ms. Cooksey for her service to the RFPG.

Mr. Wegmann motioned to authorize the River Authority to post a solicitation for the Electric Generating Utilities vacancy. Ms. Scott seconded the motion, motion passed.

**AGENDA ITEM NO.9: PUBLIC COMMENT – LIMIT 3 MINUTES PER PERSON**

No public comments.

**AGENDA ITEM NO.10: DATE AND POTENTIAL AGENDA ITEMS FOR NEXT MEETING**

The Technical Committee will meet next on Tuesday, February 25<sup>th</sup> at 1:30 PM.

The RFPG will meet next on Monday, March 17<sup>th</sup> at 2:00 PM. This will be the second meeting to adopt an amendment to the 2023 RFP.

**AGENDA ITEM NO.11: ADJOURN**

Ms. Reid motioned to adjourn. Ms. Scott seconded the motion, motion passed.

**AGENDA ITEM NO.7 – DISCUSSION AND APPROPRIATE ACTION TO ADOPT AN AMENDMENT TO THE 2023 SAN ANTONIO REGIONAL FLOOD PLAN**

Includes:

- FMP Summary Sheets
- FME Summary Sheets
- Draft Amendment Memorandum

# 2023 San Antonio Regional Flood Plan

## 2025 Amendment #2

### FMP Summary Sheets



# 2023 San Antonio Regional Flood Plan 2025 Amendment #2 FMP Project Summary Sheet

**Project Name:** Judson and Lookout LWC Improvement  
**FMP ID:** 123000022  
**Project Sponsor:** City of San Antonio  
**Project Source:** City of San Antonio

**Cost Information**

Category	Cost*
Design	\$957,658
Real Estate	\$280,907
Environmental	\$62,806
Construction	\$5,686,835
<b>Total Cost**</b>	<b>\$6,989,000</b>

**Benefit Cost Analysis (BCA)**

Event Damages	Baseline	Project
2-year storm	\$ 854,474	\$ -
10-year storm	\$ 1,295,003	\$ -
100-year storm	\$ 2,323,555	\$ -
<b>Total Benefits</b>	<b>\$ 11,554,267</b>	
<b>BCA</b>	<b>1.4</b>	

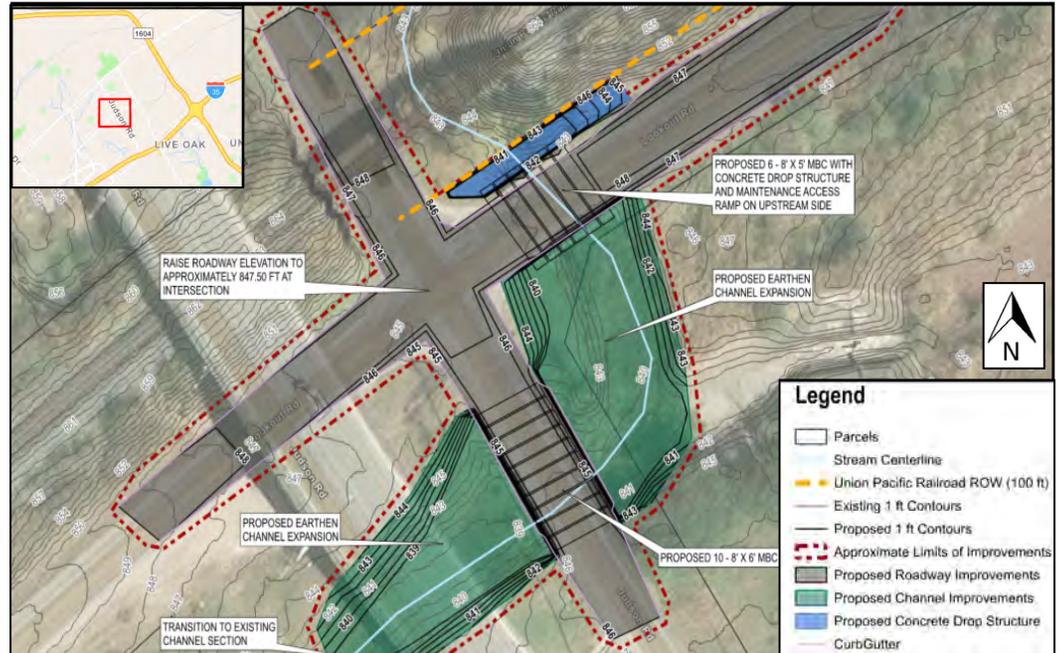
\*Costs are using 2020 prices  
 \*\*Rounded up to the nearest thousand

**Impact Analysis**

Post-Project Total Removed	Storm Event		
	2-year	10-year	100-year
Residential	-	-	0
Commercial	-	-	0
Flooded Road (miles)	0.05	0.07	0.10
Critical	-	-	0
Others Note	N/A	N/A	N/A
SVI Score			0.39

**LWC Level of Service Existing Vs. Proposed**

Condition	Level of Service	100-Yr Depth Over Road (ft)
Existing	< 2-Yr	2.0
Proposed	100-Yr	0.0



**Project Description:**

The project was designated FMP ID No. 123000022 in the 2023 San Antonio Regional Flood Plan and 2024 State Flood Plan. Lying at the confluence of two unnamed tributaries to Beitel Creek in the Salado Creek watershed, the intersection of Judson Road and Lookout Road in San Antonio has been identified as a flood problem area in need of mitigation. The channel and culvert crossings are undersized, contributing to flooding of the intersection. To eliminate flooding of the roadways, a combination of roadway improvements, culvert upgrades, and channel improvements are proposed. The project will require local permitting, a stormwater pollution prevention plan (SWPPP), as well as additional permitting with regulatory agencies, such as FEMA and the U.S. Army Corps of Engineers (USACE).



# 2023 San Antonio Regional Flood Plan 2025 Amendment #2 FMP Project Summary Sheet

**Project Name:** Allsup-Flagle Area Drainage Improvements  
**FMP ID:** 123000081  
**Project Sponsor:** City of San Antonio  
**Project Source:** City of San Antonio

**Cost Information**

Category	Cost*
Design	\$485,089
Real Estate	\$0
Environmental	\$179,756
Construction	\$2,246,762
<b>Total Cost**</b>	<b>\$2,912,000</b>

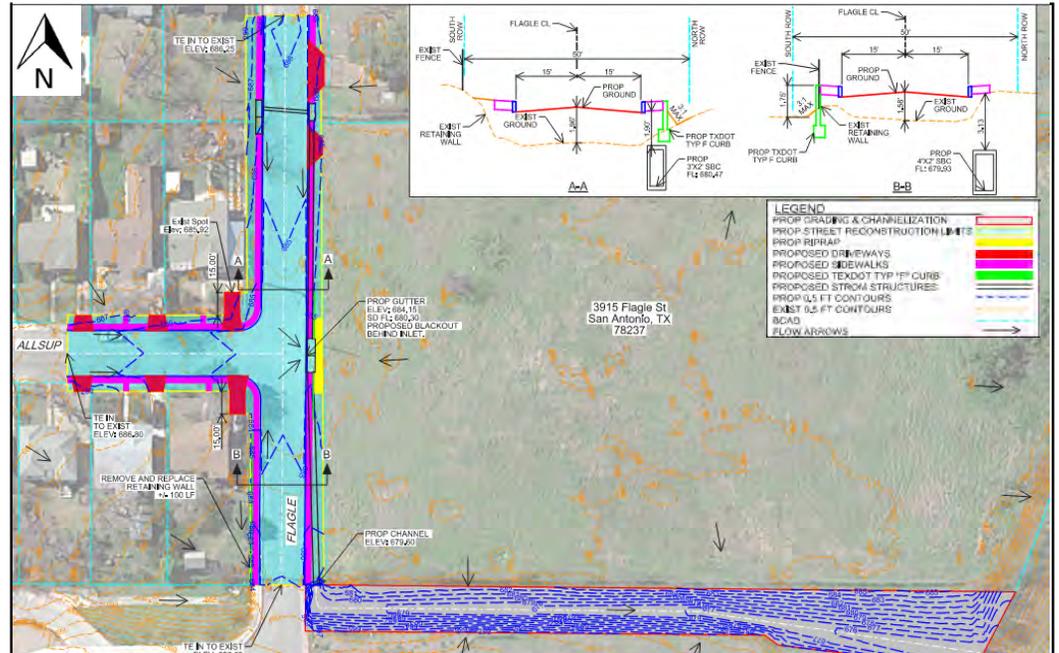
**Benefit Cost Analysis (BCA)**

Event Damages	Baseline	Project
5-year storm	\$ 35,270	\$ -
25-year storm	\$ 35,789	\$ -
100-year storm	\$ 36,100	\$ -
<b>Total Benefits</b>	<b>\$ 135,567</b>	
<b>BCA</b>	<b>0.1</b>	

\*Costs are using 2020 prices  
 \*\*Rounded up to the nearest thousand

**Impact Analysis**

Post-Project Total Removed	Storm Event		
	5-year	25-year	100-year
Residential	1	1	1
Commercial	0	0	0
Flooded Road (miles)	0.003	0.01	0.02
Critical	-	-	0
Others Note	N/A	N/A	N/A
SVI Score	0.830		



**Project Description:**

The focus of this project is to address drainage concerns at an apparent low at the intersection of Allsup Street and Flagle Street. The intersection is directly adjacent to Roosevelt Elementary School within Edgewood ISD, and the intersection floods during rain events. The project includes street reconstruction to raise the profile of the street approximately 2.0' at the intersection. An underground 4'x2' SBC storm sewer system with curb inlets is proposed and will outfall to an improved channel that drains to Zarzamora Creek. A green infrastructure cost of \$151,534 was added to the total cost so that low impact development features can be incorporated in the design phase. The storm system will convey the 25-year storm event. H&H analysis shows that raising the roadway and drain improvements will remove the intersection, including 354 Allsup, from the 100-year floodplain.



# 2023 San Antonio Regional Flood Plan 2025 Amendment #2 FMP Project Summary Sheet

**Project Name:** Blue Wing Road Realignment

**FMP ID:** 123000082

**Project Sponsor:** City of San Antonio

**Project Source:** City of San Antonio

**Cost Information**

Category	Cost*
Design	\$558,046
Real Estate	\$4,461,330
Environmental	\$82,741
Construction	\$3,282,122
<b>Total Cost**</b>	<b>\$8,385,000</b>

**Benefit Cost Analysis (BCA)**

Event Damages	Baseline	Project
2-year storm	\$ 1,568,245	\$ -
5-year storm	\$ 1,960,939	\$ -
100-year storm	\$ 2,167,959	\$ -
<b>Total Benefits</b>	<b>\$ 19,354,552</b>	
<b>BCA</b>	<b>2.5</b>	

\*Costs are using 2020 prices

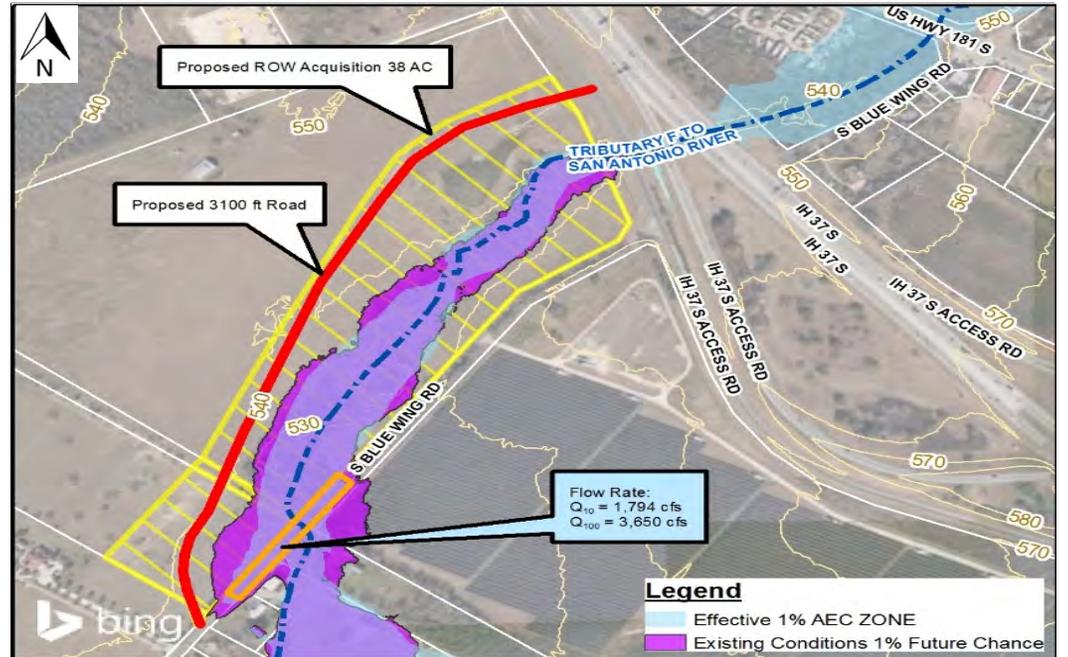
\*\*Rounded up to the nearest thousand

**Impact Analysis**

Post-Project Total Removed	Storm Event		
	2-year	5-year	100-year
Residential	0	0	0
Commercial	0	0	0
Flooded Road (miles)	0.10	0.11	0.15
Critical	-	-	0
Others Note	N/A	N/A	N/A
SVI Score			0.639

**LWC Level of Service Existing Vs. Proposed**

Condition	Level of Service	100-Yr Depth Over Road (ft)
Existing	< 2-Yr	6 ft
Proposed	100-Yr	0



**Project Description:**

Blue Wing Rd crosses Tributary F of the San Antonio River approximately 2,700' downstream of IH 37 in south-east San Antonio. Existing cross drainage structures at Blue Wing Rd and the downstream driveway culverts do not have sufficient capacity and overtop in the 2-year storm event. This project consists of realigning Blue Wing Rd. Road profile adjustments up to 1' will be required along the existing road section (approximately 200') to elevate above the future 100-year WSE. The project will provide unflooded access to IH 37 for the local residents. Land acquisition for the proposed alignment is estimated at 38 acres. The proposed project does not address flood risk and overtopping of the residential driveway structures just downstream of the Blue Wing Rd. existing Tributary F crossing. The project improvements are outside of the revised 100-year future conditions resulting in no downstream impacts.



# 2023 San Antonio Regional Flood Plan 2025 Amendment #2 FMP Project Summary Sheet

**Project Name:** Dam No. 1 Rehabilitation and Flood Mitigation  
**FMP ID:** 123000083  
**Project Sponsor:** San Antonio River Authority  
**Project Source:** San Antonio River Authority

**Cost Information**

Category	Cost*
Design	\$726,873
Real Estate	\$75,367
Environmental	\$70,343
Construction	\$8,141,315
<b>Total Cost**</b>	<b>\$9,014,000</b>
<b>Amount Funded by NRCS</b>	<b>\$6,369,000</b>

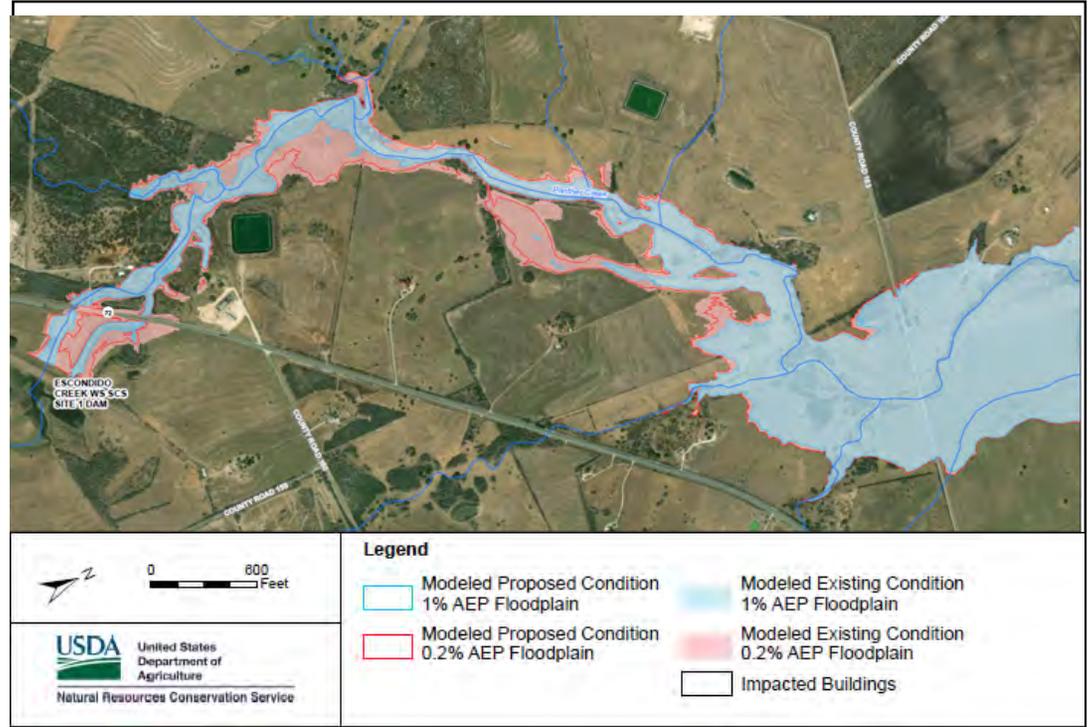
**Benefit Cost Analysis (BCA)**

Annual Costs	\$	330,000
Annual Benefits	\$	12,000
<b>BCA</b>		<b>0.03</b>

\*Costs are using 2020 prices  
 \*\*Rounded up to the nearest thousand

**Impact Analysis**

Post-Project Total Removed	Storm Event		
	2-year	10-year	100-year
Residential	-	-	0
Commercial	-	-	0
Flooded Road (miles)	-	-	4.41
Critical	-	-	0
Others Note	N/A	N/A	N/A
SVI Score			0.736



**Project Description:**

The Escondido Creek Dam No. 1 (FRS No. 1) was constructed in 1954 as a low-hazard dam. Significant downstream development over the past several decades has increased the potential risk posed by the dam's structural inadequacies. It has been reclassified as a high-hazard potential dam, meaning that its failure could result in significant downstream impacts, including loss of life and severe infrastructure damage. Assessments have determined that the dam no longer meets NRCS or Texas Commission on Environmental Quality (TCEQ) safety and performance standards for high-hazard structures. This project focus on the rehabilitation, construction only, of Escondido Dam 1 in Karnes County, Texas to include principal spillway replacement, auxiliary spillway improvements, and embankment enhancements.



# 2023 San Antonio Regional Flood Plan 2025 Amendment #2 FMP Project Summary Sheet

**Project Name:** Dam No. 4 Rehabilitation and Flood Mitigation  
**FMP ID:** 123000084  
**Project Sponsor:** San Antonio River Authority  
**Project Source:** San Antonio River Authority

**Cost Information**

Category	Cost*
Design	\$1,210,060
Real Estate	\$146,547
Environmental	\$95,465
Construction	\$13,557,692
<b>Total Cost**</b>	<b>\$15,010,000</b>
<b>Amount Funded by NRCS</b>	<b>\$10,622,000</b>

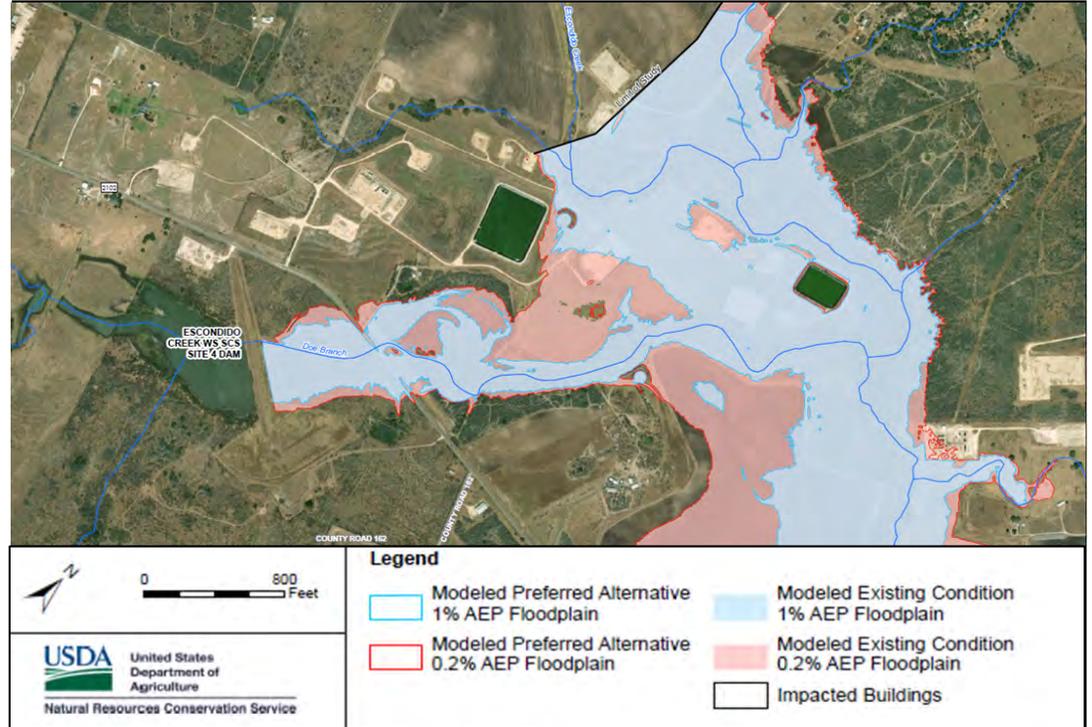
**Benefit Cost Analysis (BCA)**

Annual Costs	\$	550,000
Annual Benefits	\$	141,000
<b>BCA</b>		<b>0.26</b>

\*Costs are using 2020 prices  
 \*\*Rounded up to the nearest thousand

**Impact Analysis**

Post-Project Total Removed	Storm Event		
	2-year	10-year	100-year
Residential	-	-	0
Commercial	-	-	0
Flooded Road (miles)	-	-	5.36
Critical	-	-	0
Others Note	N/A	N/A	N/A
SVI Score			0.736



**Project Description:**

The Escondido Creek Dam No. 4 (FRS No. 4) was constructed in 1954 as a low-hazard dam. Significant downstream development over the past several decades has increased the potential risk posed by the dam's structural inadequacies. It has been reclassified as a high-hazard potential dam, meaning that its failure could result in significant downstream impacts, including loss of life and severe infrastructure damage. Assessments have determined that the dam no longer meets NRCS or Texas Commission on Environmental Quality (TCEQ) safety and performance standards for high-hazard structures. This project focus on the rehabilitation, construction only, of Escondido Dam 4 in Karnes County, Texas to include spillway and embankment enhancements, structural and erosion control updates, and emergency action and hydraulic updates.



# 2023 San Antonio Regional Flood Plan 2025 Amendment #2 FMP Project Summary Sheet

**Project Name:** Dam No. 12 Rehabilitation and Flood Mitigation

**FMP ID:** 123000085

**Project Sponsor:** San Antonio River Authority

**Project Source:** San Antonio River Authority

**Cost Information**

Category	Cost*
Design	\$1,323,110
Real Estate	\$251,223
Environmental	\$145,710
Construction	\$14,817,997
<b>Total Cost**</b>	<b>\$16,539,000</b>
<b>Amount Funded by NRCS</b>	<b>\$11,669,000</b>

**Benefit Cost Analysis (BCA)**

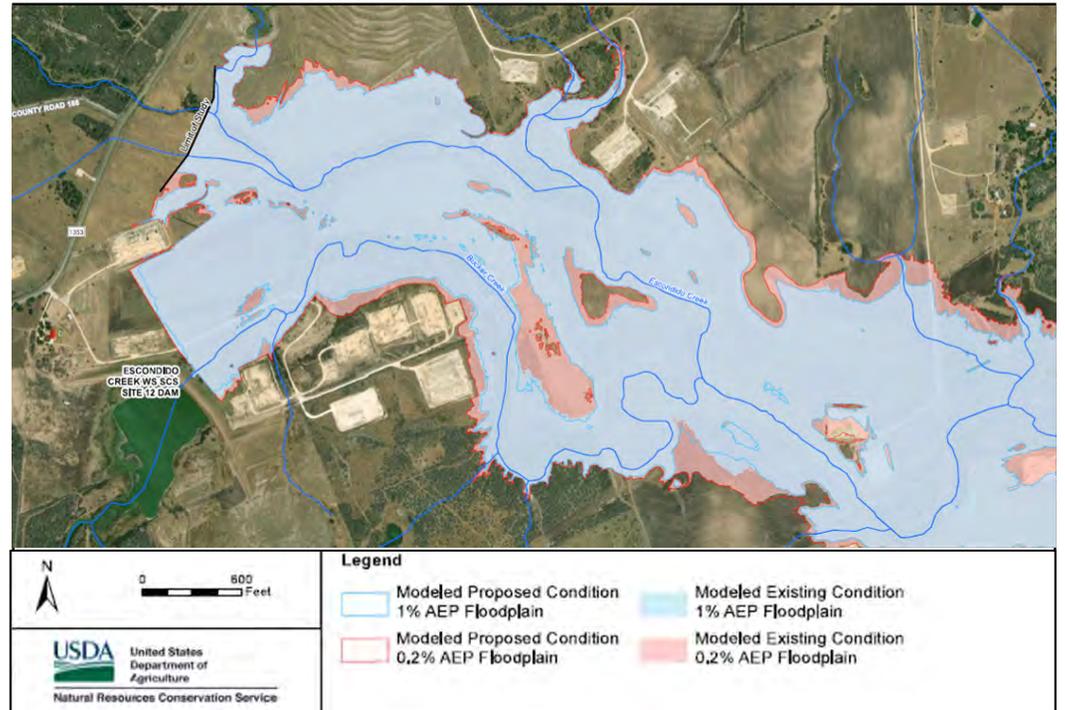
Annual Costs	\$	606,000
Annual Benefits	\$	201,000
<b>BCA</b>	<b>0.33</b>	

\*Costs are using 2020 prices

\*\*Rounded up to the nearest thousand

**Impact Analysis**

Post-Project Total Removed	Storm Event		
	2-year	10-year	100-year
Residential	-	-	34
Commercial	-	-	0
Flooded Road (miles)	-	-	5.23
Critical	-	-	0
Others Note	N/A	N/A	N/A
SVI Score			0.736



**Project Description:**

The Escondido Creek Dam No. 4 (FRS No. 4) was constructed in 1954 as a low-hazard dam. Significant downstream development over the past several decades has increased the potential risk posed by the dam's structural inadequacies. It has been reclassified as a high-hazard potential dam, meaning that its failure could result in significant downstream impacts, including loss of life and severe infrastructure damage. Assessments have determined that the dam no longer meets NRCS or Texas Commission on Environmental Quality (TCEQ) safety and performance standards for high-hazard structures. This project focus on the rehabilitation, construction only, of Escondido Dam 4 in Karnes County, Texas to include spillway and embankment enhancements, structural and erosion control updates, and emergency action and hydraulic updates.



# 2023 San Antonio Regional Flood Plan 2025 Amendment #2 FMP Project Summary Sheet

**Project Name:** Tributary F to Salado Creek Area Drainage Project Alt 1  
**FMP ID:** 123000086  
**Project Sponsor:** City of San Antonio  
**Project Source:** City of San Antonio

**Cost Information**

Category	Cost*
Design	\$4,071,526
Real Estate	\$5,625,406
Environmental	\$331,714
Construction	\$19,865,285
<b>Total Cost**</b>	<b>\$29,894,000</b>

**Benefit Cost Analysis (BCA)**

Event Damages	Baseline	Project
5-year storm	\$ 5,091,311	\$ 234,876
10-year storm	\$ 8,945,330	\$ 380,247
100-year storm	\$ 16,671,848	\$ 4,976,654
<b>Total Benefits</b>	<b>\$ 20,716,224</b>	
<b>BCA</b>	<b>0.8</b>	

\*Costs are using 2020 prices  
 \*\*Rounded up to the nearest thousand

**Impact Analysis**

Post-Project Total Removed	Storm Event		
	5-year	10-year	100-year
Residential	-	-	21
Commercial	-	-	0
Flooded Road (miles)	-	-	1.37
Critical	-	-	0
Others Note	N/A	N/A	N/A
SVI Score			0.517

**LWC Level of Service Existing Vs. Proposed**

Condition	Level of Service	100-Yr Depth Over Road (ft)
Existing	5-Yr	5.6
Proposed	100-Yr	0.0



**Project Description:**

Tributary F to Salado Creek crosses Stahl Rd twice within 1300 feet, which is in the FEMA 100-year floodplain. The Trib F to Salado Creek Area Drainage Project will improve the channel and raise Stahl Rd to convey the 25-yr design storm event and remove 21 structures from the 100-year floodplain. This phase constructs an offline detention facility to be located along the right overbank of Tributary F, upstream of Stahl Rd. near Bulverde Rd. in an open tract which will require acquisition. The offline facility will mitigate adverse downstream impacts caused by the proposed channel/road improvements along Stahl Rd. A proposed bypass channel along the west side of the detention facility is included to convey flows through an existing UPRR cross culvert around the detention facility to Tributary F. UPRR coordination will be required. A project to remove Stahl Rd from the 100-yr floodplain will require \$104.5M and 40 acres of Friesenhahn Park for a large detention pond.

# 2023 San Antonio Regional Flood Plan

## 2025 Amendment #2

### FME Summary Sheets



# 2023 San Antonio Regional Flood Plan 2025 Amendment #2 FME Project Summary Sheet

**Project Name:** Belfair Drive PER

**FME ID:** 121000028

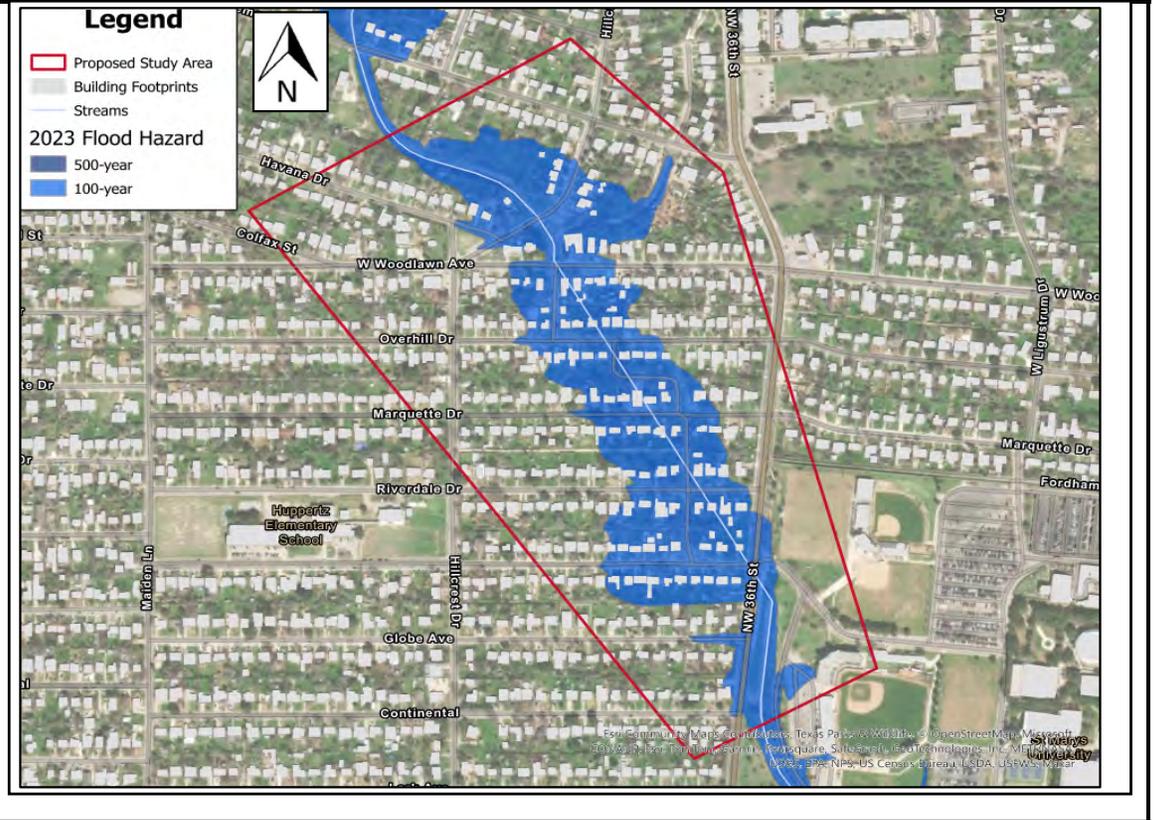
**Project Sponsor:** City of San Antonio

**Project Source:** City of San Antonio

**Study Type:** Project Planning

**Project Cost:** \$ 250,000  
(2020 Prices)

**Project Description:**  
Updates to an existing 2023 San Antonio Regional Flood Plan FME ID 121000028. Belfair Drive is located on the west side of San Antonio and contains an underground section of Apache Creek from W. Woodlawn Avenue to NW 36th Street, just west of St. Mary's University. The area has experienced flooding in the past with significant damage to private property. The most recent hydraulic model shows 116 structures and 115 residential properties are in the 100-year floodplain. This PER will revisit the previous studies, update them for ATLAS 14 rainfall data, evaluate the feasibility of a storm sewer diversion, and update the opinion of probable construction cost accounting for recent increases in construction prices.





# 2023 San Antonio Regional Flood Plan 2025 Amendment #2 FME Project Summary Sheet

**Project Name:** Drainage Project 58A PER

**FME ID:** 121000084

**Project Sponsor:** City of San Antonio

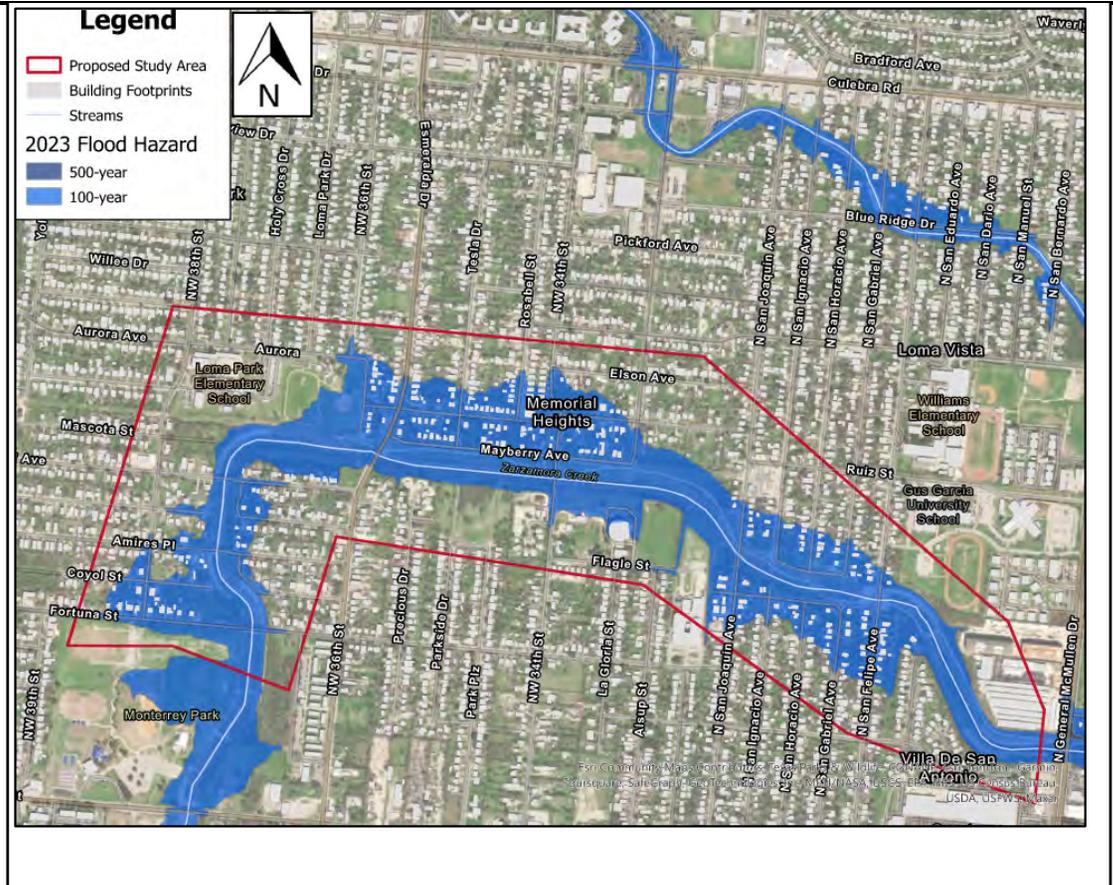
**Project Source:** Upper San Antonio River Watershed Master Plan

**Study Type:** Project Planning

**Project Cost:** \$ 500,000  
(2020 Prices)

**Project Description:**

Updates to an existing 2023 San Antonio Regional Flood Plan FME ID 121000084. Drainage Project 58A is intended to mitigate the 100-year regulatory floodplain in Zarzamora Creek from a pedestrian crossing near San Pablo Place to the Fortuna Street Bridge. The most recent hydraulic model for this portion of Zarzamora Creek shows 260 structures, 249 residential properties, and 10 critical facilities are in the 100-year floodplain. There is also a potable water tank/pump station site that is property of San Antonio Water System located with multiple pumps, a ground storage tank, and other structures in the floodplain. Recommends the Voluntary Property Acquisition approach, as it is the only cost-effective means at reducing flood risk. This PER will revisit the previous study, update it for ATLAS 14 rainfall data and determine if a cost-effective solution to mitigating flood risk can be determined.





# 2023 San Antonio Regional Flood Plan 2025 Amendment #2 FME Project Summary Sheet

**Project Name:** Downtown Flood Risk Assessment

**FME ID:** 121000185

**Project Sponsor:** City of San Antonio

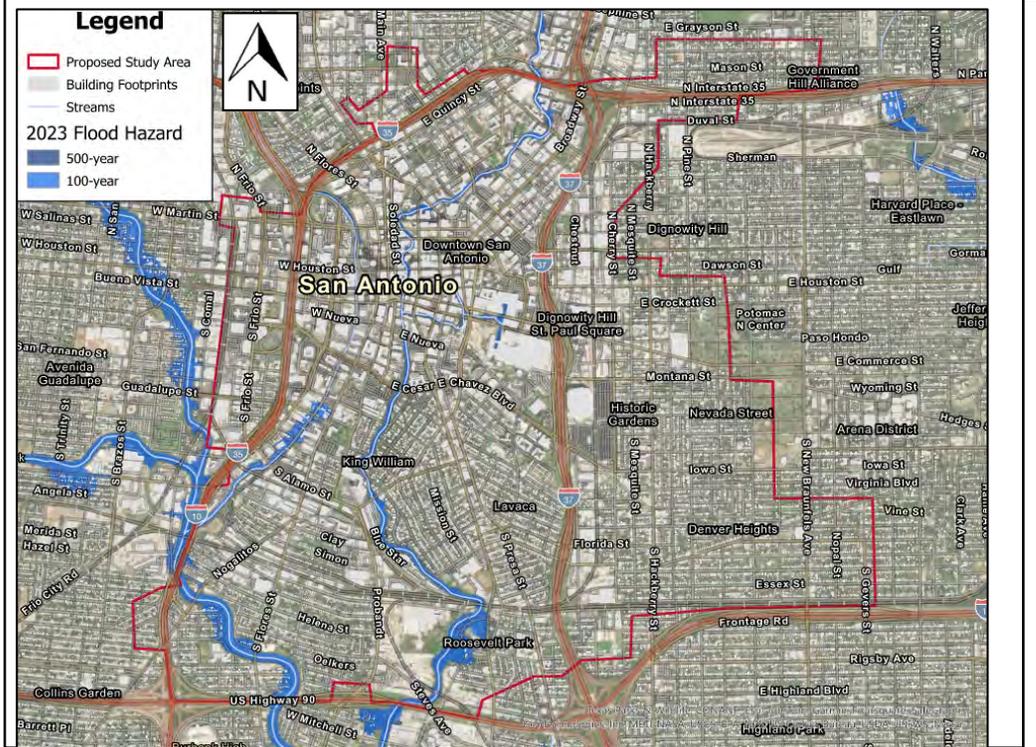
**Project Source:** City of San Antonio

**Study Type:** Project Planning

**Project Cost:** \$ 750,000  
**(2020 Prices)**

**Project Description:**

In the past century significant investments were made to downtown San Antonio. These investments were to protect the Central Business District from flooding with the installation of the gate system and underground tunnel. With the San Antonio River being the main channel for stormwater conveyance, all the underground infrastructure outfalls into the river. The proposed study would evaluate the San Antonio Downtown area with a 2D model using updated hydrology to identify the remaining flood risk to human lives and the local economy. This would include mapping the underground infrastructure with televising data to identify the network.





# 2023 San Antonio Regional Flood Plan 2025 Amendment #2 FME Project Summary Sheet

**Project Name:** Olmos Dam Facilities Upgrades

**FME ID:** 121000186

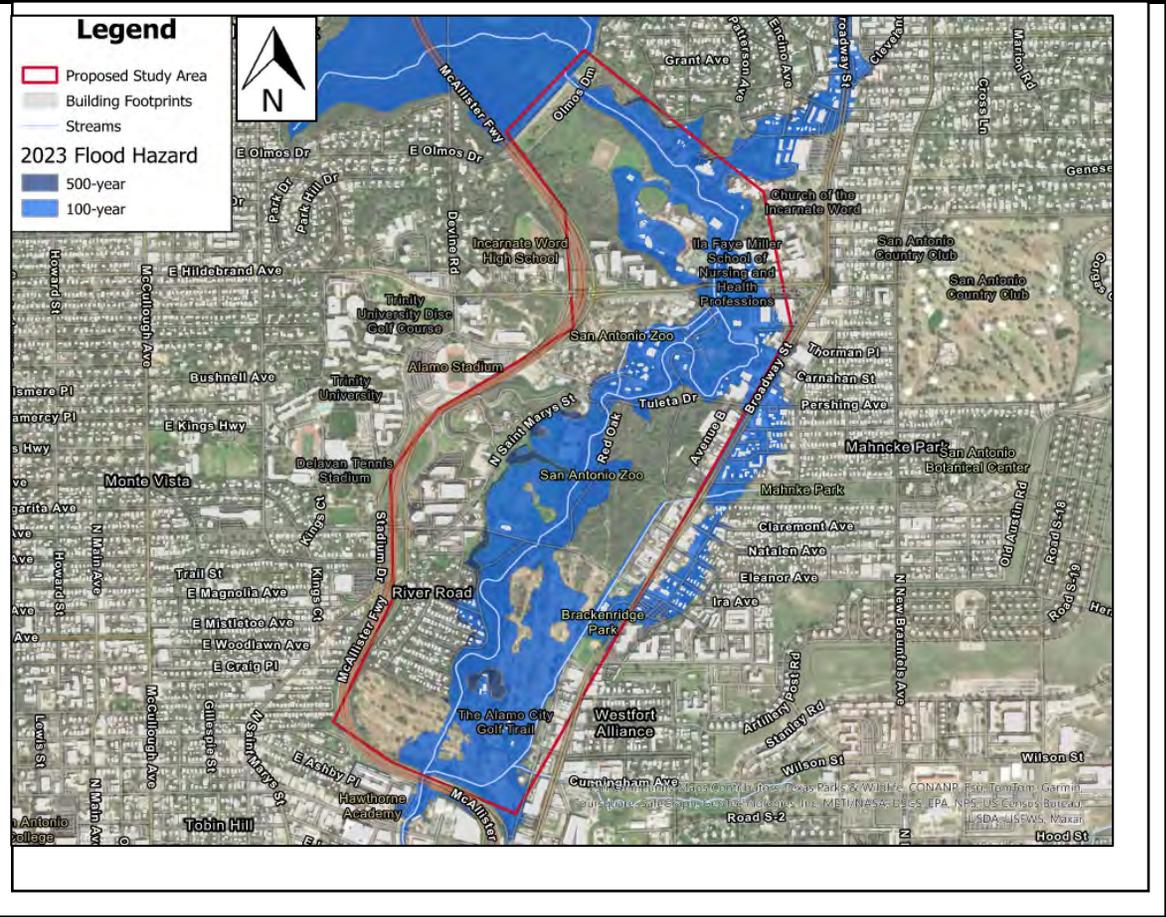
**Project Sponsor:** City of San Antonio

**Project Source:** City of San Antonio

**Study Type:** Project Planning

**Project Cost:** \$ 350,000  
(2020 Prices)

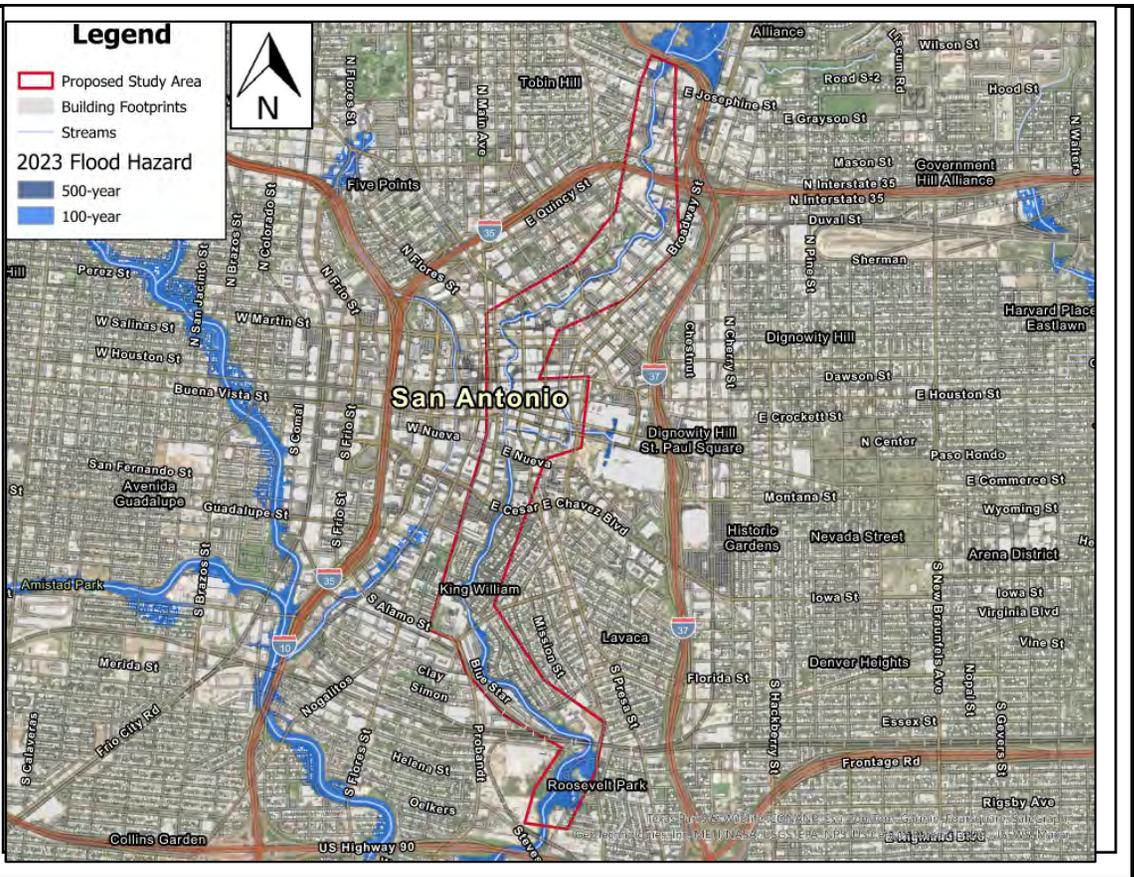
**Project Description:**  
Olmos Dam was constructed in 1927 and updated in the late 80's. In the last 30 years, there has been substantial deterioration to the facility requiring significant upgrades and modifications. The facility requires a full replacement of the gates, frames, actuators, and crane. In addition to the facility's main components needing repairs, the electrical components have shown signs of failure. The electrical breaker failed and has been retrofitted to remain in operation. This puts both the facility and the operators at risk. The replacement of the electrical and transfer switches is necessary due to the current ones being obsolete. In addition to the main electrical replacements, a new generator to ensure continual operations is pertinent to efficient operations. Lastly, a replacement of the access gates and lighting for safety and security. This project would evaluate the site and prepare a 30% plan set to provide realistic options for upgrading and replacing the facility components to optimal function.





# 2023 San Antonio Regional Flood Plan 2025 Amendment #2 FME Project Summary Sheet

<b>Project Name:</b>	San Antonio River Tunnel Inlet Facility Upgrades
<b>FME ID:</b>	121000187
<b>Project Sponsor:</b>	City of San Antonio
<b>Project Source:</b>	City of San Antonio
<b>Study Type:</b>	Project Planning
<b>Project Cost: (2020 Prices)</b>	\$ 350,000
<b>Project Description:</b>	<p>The San Antonio River Tunnel Inlet was constructed in the mid-90's. The facility upgrades require the replacement of the gates, actuators, gate opening mechanisms (stems), and generator. The trash rack motors are original to the conception of the facility. They have long outlived their lifespan. Replacement of the motors to ensure continued operation is needed. In addition to the aging infrastructure, the foundation has shown signs of movement resulting in the need for new conduits for electrical and communications. Pavers were installed around the facility that has additionally shown signs of movement requiring replacement for safety, access, and stability. Lastly, an upgrade to the monitoring system to ensure continued monitoring during the transition to generator power. This project would identify and design, to a 30% plan, options to upgrade the facility to maintain efficient operations.</p>





# 2023 San Antonio Regional Flood Plan 2025 Amendment #2 FME Project Summary Sheet

**Project Name:** W. Commerce - LWC #106 Area Drainage Improvements  
PER

**FME ID:** 121000188

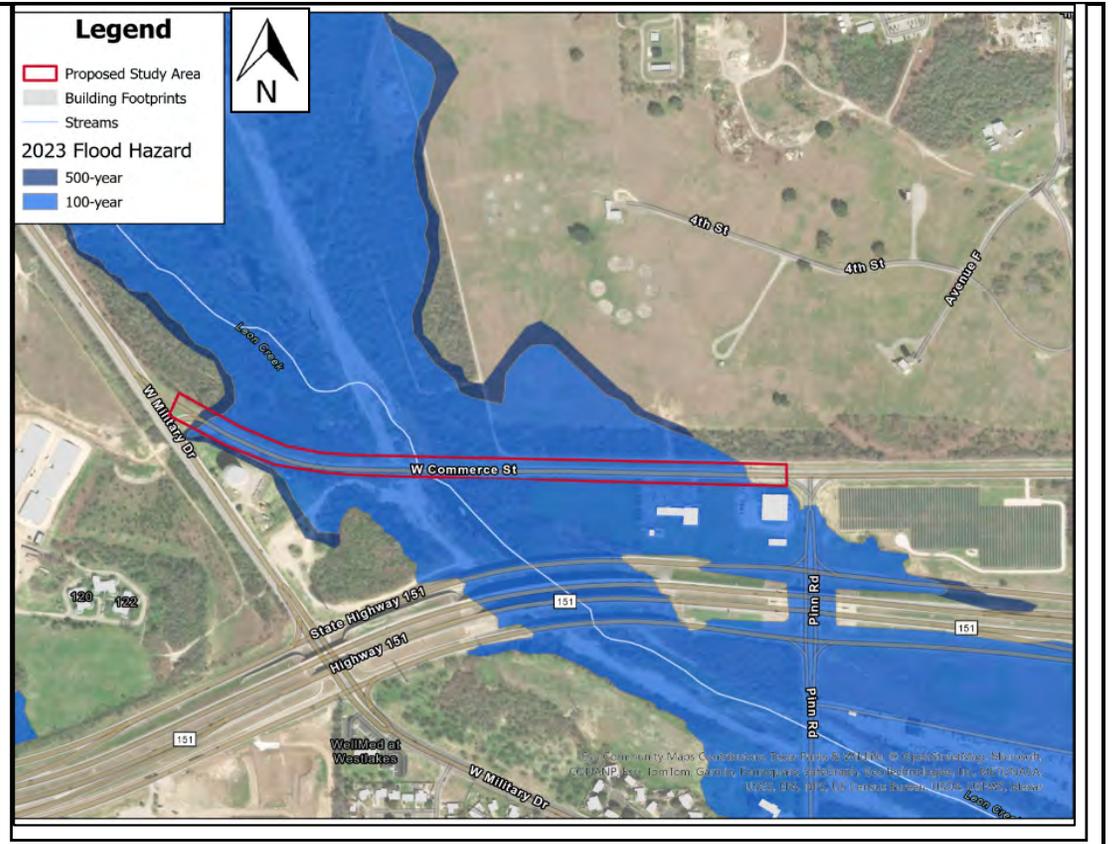
**Project Sponsor:** City of San Antonio

**Project Source:** City of San Antonio

**Study Type:** Project Planning

**Project Cost:** \$ 300,000  
(2020 Prices)

**Project Description:**  
The proposed planning project comprises developing a Preliminary Engineering Report (PER) to identify options for accommodating the 1% annual chance storm event for ultimate development for Leon Creek at W. Commerce St. approximately 2750' west of Pinn Rd. The most recent hydraulic model shows one low water crossing in the 100-year floodplain. The proposed PER study will identify and recommend various drainage and structural options to mitigate and/or remove property and structure flooding within the FEMA regulated floodplain. The study will also provide a downstream analysis for each recommended option to verify the severity of impacts downstream of the low water crossing.







# 2023 San Antonio Regional Flood Plan 2025 Amendment #2 FME Project Summary Sheet

<b>Project Name:</b>	San Antonio River Tunnel Outlet Upgrades
<b>FME ID:</b>	121000190
<b>Project Sponsor:</b>	City of San Antonio
<b>Project Source:</b>	City of San Antonio
<b>Study Type:</b>	Project Planning
<b>Project Cost: (2020 Prices)</b>	\$ 350,000
<b>Project Description:</b>	<p>The San Antonio River Tunnel Outlet was constructed in the late-90's. The foundation has shown signs of movement resulting in the need to replace doors. The infrastructure has shown signs of aging. The need to replace the ceiling grid, repair cracks on the walls, and replace actuators and gates are essential to maintaining continued operations. The pup valves are rusting and are also in need of replacement. The air solenoids have needed repairs that now require replacement since the parts are obsolete. This component is essential in the efficient operations of the gates. Lastly, the replacement of the exhaust fan to remove heat and chemicals is needed. This project would identify and design, to a 30% plan, options to upgrade the facility to maintain efficient operations.</p>

**Legend**

- Proposed Study Area
- Building Footprints
- Streams

**2023 Flood Hazard**

- 500-year
- 100-year



# 2023 San Antonio Regional Flood Plan 2025 Amendment #2 FME Project Summary Sheet

**Project Name:** San Antonio Water System Facility Flood Risk Study

**FME ID:** 121000191

**Project Sponsor:** San Antonio Water System

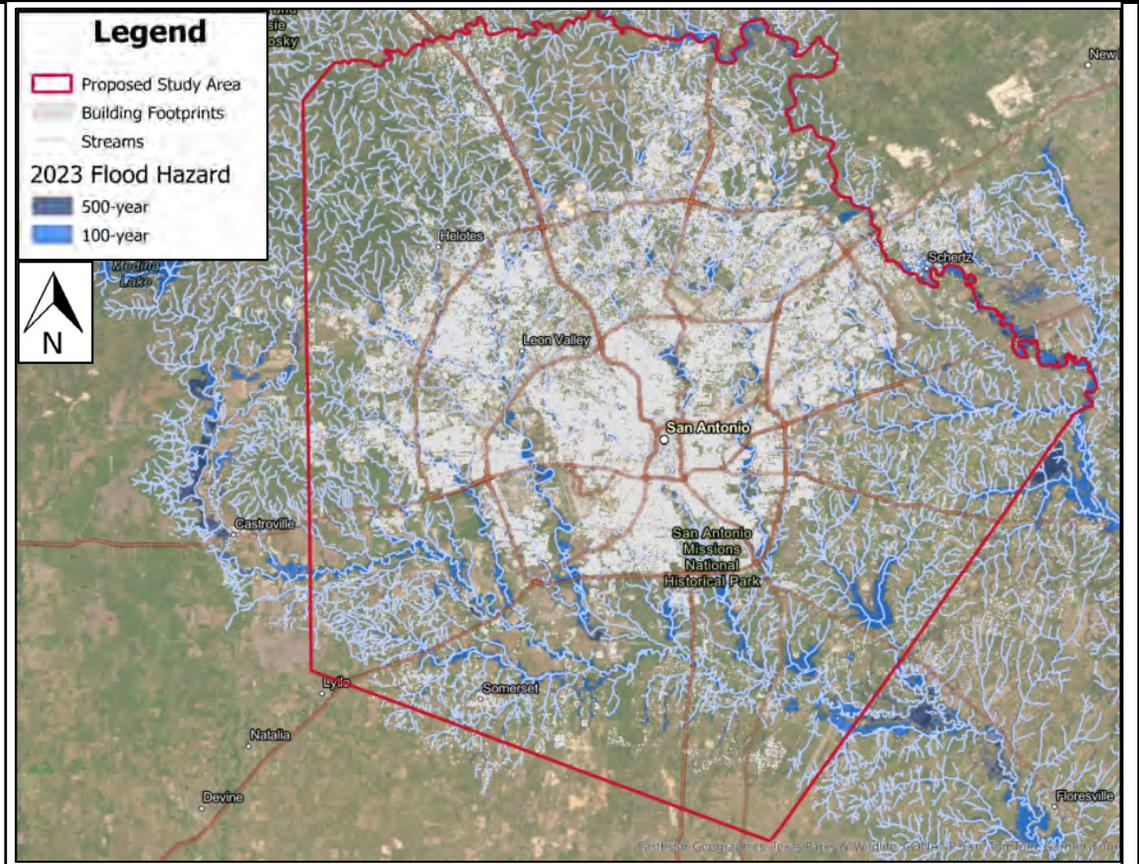
**Project Source:** San Antonio Water System

**Study Type:** Watershed Planning

**Project Cost:** \$ 1,000,000  
**(2020 Prices)**

**Project Description:**

Developing a drainage study to identify flood impacts to San Antonio Water System (SAWS) water and sewer infrastructure. The study will evaluate infrastructure flood risks, flood proofing measures, INI issues, and unflooded road access to the facilities. The project cost was developed using FME Planning Cost Estimates found in section 5.2.1.1 of the San Antonio Regional Flood Plan for Watershed Planning. The SAWS infrastructure study area is assumed to cover 50 square miles.





# 2023 San Antonio Regional Flood Plan 2025 Amendment #2 FME Project Summary Sheet

**Project Name:** Calaveras Watershed Atlas 14 Update

**FME ID:** 121000192

**Project Sponsor:** San Antonio River Authority

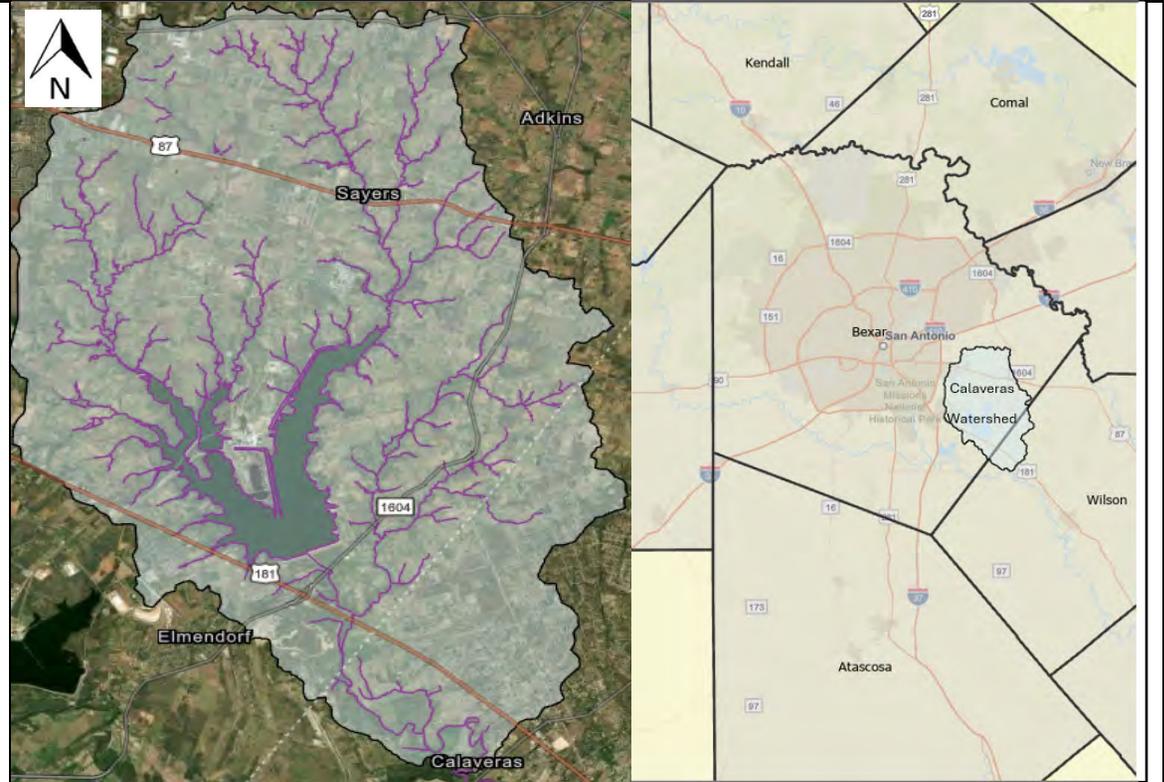
**Project Source:** San Antonio River Authority

**Study Type:** Watershed Planning

**Project Cost:** \$ 1,155,000  
**(2020 Prices)**

**Project Description:**

Calaveras Watershed, covering approximately 95 square miles with 203 stream miles within its watershed limits has not been updated with Atlas 14 rainfall. Atlas 14 precipitation estimates which increase the 1% annual chance rainfall depth for a 24-Hour period. Project will include the processing and development of the terrain using latest available LiDAR data, survey of identified structures, Hydrologic and hydraulics analysis, mapping, and the production of Flood Risk Products to support local and regional decision-making, planning, and communication. The project will follow FEMA and TWDB standards. The goal of this project is to produce data that can be used to understand flood risk and produce data that can be used for future planning.



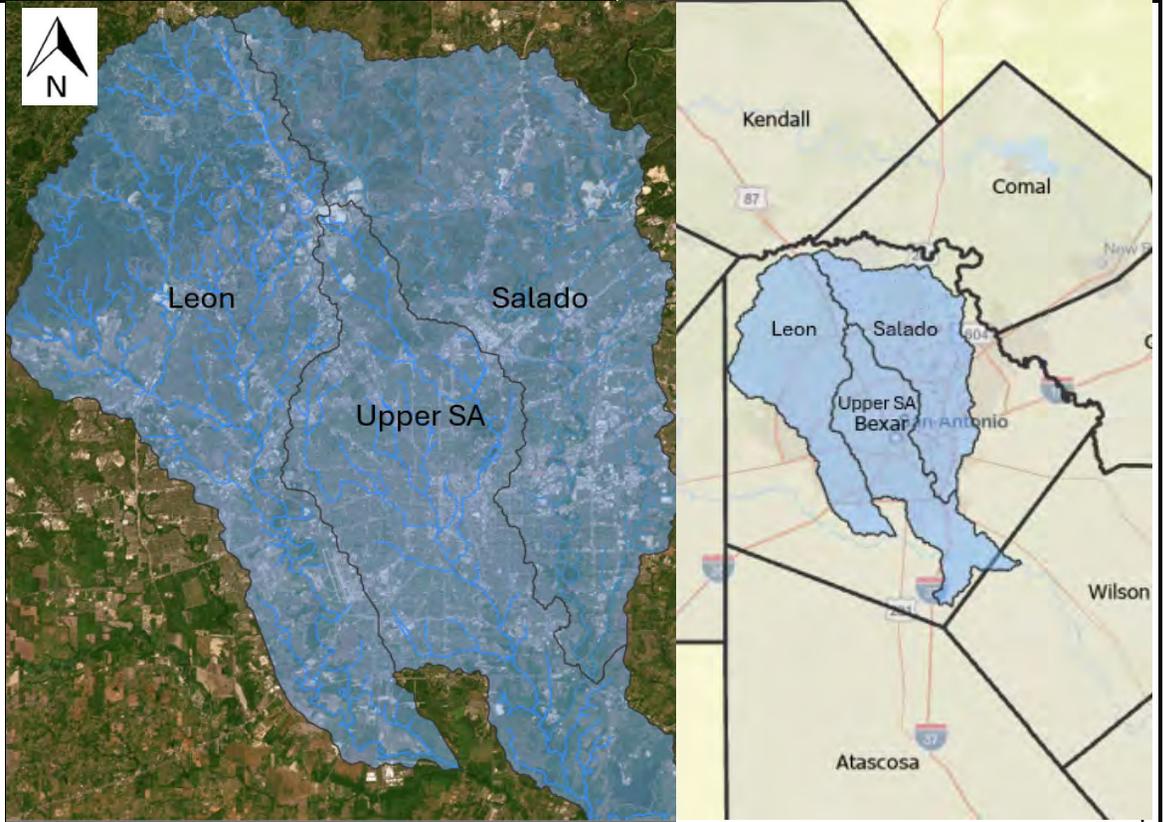


# 2023 San Antonio Regional Flood Plan 2025 Amendment #2 FME Project Summary Sheet

**Project Name:** Future Rainfall Projection Incorporation-Urban Watersheds  
**FME ID:** 121000193  
**Project Sponsor:** San Antonio River Authority  
**Project Source:** San Antonio River Authority  
**Study Type:** Preparedness  
**Project Cost:** \$ 1,590,000  
**(2020 Prices)**

**Project Description:**

This project focuses on integrating projected future rainfall frequency data into urban watershed studies for the USAR, Salado, and Leon watersheds within Bexar County. Covering 650 square miles with 777 stream miles, these urban watersheds are critical for flood management and urban planning. This project will use best available data to incorporate future rainfall projections into the hydrologic and hydraulic models, mapping, and planning for these urban watersheds. The primary objective is to enhance understanding of future flood risks and support proactive community planning, infrastructure design, and regulatory updates. By addressing future climate impacts, the project will improve resilience in flood-prone areas, provide insights into future risks, and enable informed decision-making for sustainable urban development.





# 2023 San Antonio Regional Flood Plan Amendment #2

DRAFT Amendment Memorandum  
April 1, 2025



September 10, 2024

Bryan McMath  
Executive Administrator  
Texas Water Development Board  
1700 Congress Avenue  
Austin, Texas 78701

**EXAMPLE COVER  
LETTER**

**Re: Amendment to the 2023 Region X Flood Plan**

Dear Mr. McMath:

The Region X Flood Planning Group has reviewed, considered, and approved the amendment to the 2023 Region X Flood Plan in response to the need to recommend additional flood risk reduction solutions to be considered by the Board during the 2026-2027 cycle of the Flood Infrastructure Fund. During the review process, five Flood Management Evaluations recommended in the 2023 regional flood plan were executed to identify and recommend three new flood mitigation projects. These changes were considered by the Region X Flood Planning Group at its October 1, 2024, regular public meeting. The group took formal action at this meeting to approve the submittal of an amendment package to TWDB for review by the April 1, 2025 deadline. This package was submitted to TWDB on March 28, 2025.

The Region X 2023 Regional Flood Plan #2 was approved and adopted by the Region X Flood Planning Group on March 25, 2025. The plan was developed in accordance with Texas Water Code and 31 TAC Chapters 361 and 362, as applicable. The amended technical report and data were prepared in accordance with Executive Administrator specifications and conforms with the guidance principles in 31 TAC §362.3. This amendment adequately provides for the preservation of life and property and the development of water supply sources, as applicable. The recommendations included in this amendment will not negatively impact neighboring areas.

The Region X Flood Planning Group met all requirements under the Texas Open Meetings Act and Public Information Act in accordance with 31 TAC Chapter 357. A public meeting was held on March 19, 2025, to present and approve this amendment. Notice of the meeting was posted and a public comment period was held 14 days prior to the meeting. No public comments were received during the comment period.

Enclosed please find an electronic copy of the second amendment to the 2023 Region X Flood Plan that was approved by the Region X Flood Planning Group.

## Summary of Changes

### 2023 Regional Flood Plan Amendment #2

#### Executive Summary

- ES.5.2.2 Recommended Flood Management Projects, Evaluations and Strategies: FMX numbers updated to account for Amendment #2.
- ES.6.1 Impacts of Regional Flood Plan: Impacted numbers updated to account for Amendment #2.
- ES.9.4 Overall Need for Funding: Updated to account for Amendment #2 financing needs.
- ES.10.2 Adoption of Plan: Updated to include Amendment #2 adoption.

#### Chapter 1

No changes were made.

#### Chapter 2 - 4

No changes were made.

#### Chapter 5

- 5.1.2: Updated sponsors responses based on Amendment #2 outreach.
- 5.1.3: FMP and FME numbers updated to account for Amendment #2.
- 5.1.4: Updated to account for Amendment #1 and #2 language.
- 5.2: Updated to account for Amendment #2 language.
- 5.2.2: Updated to account for Amendment #2 meetings and amended FMPs and FMEs results / figures. Updated Table 5-5 to include Cost and No Negative Impact Determination.

#### Chapter 6

- 6.1 Impacts of San Antonio Regional Flood Plan: FMP impact numbers updated to account for Amendment #2.
- 6.1.1 Floodplain Management and Modeling: Impact numbers updated to account for Amendment #2.
- 6.1.2 Reduction in Flood Impacted Areas: Reduction in floodplain change updated to account for Amendment #2.

- 6.2 Benefits to Population and Structures at Risk: Population/structures/critical facilities impacted updated to account for Amendment #2.
- 6.3 Low Water Crossings and Impacted Roadways: LWC/Roads impacted updated to account for Amendment #2.

## **Chapter 7 - 8**

No changes were made.

## **Chapter 9**

- 9.4 Summary of Survey Results and Funding Needs: Funding needs updated to account for Amendment work.

## **Chapter 10**

- 10.5 San Antonio Regional Flood Planning Group Meetings: Added the additional RFPG amendment meeting dates.
- 10.7 Plan Adoption: Added information about amendment approval and submittal.

## **Appendix A**

- Updated to account for Amendment #2: Table 12, 13, 15, 16, 19, Project Details, No Negative Impact, HH Model List.

## **Appendix B**

- Updated to account for Amendment #2: Map 16A, 16B, 16C, 17, 19, 20, 22.

## **Appendix C**

No changes were made.

## **Appendix D**

No changes were made.

## **Appendix E**

- FMP and FME Summary Sheets added for the Amendment #2.

# 2023 San Antonio Regional Flood Plan

Amended April 1, 2025

Prepared for San Antonio Regional Flood Planning Group

This report was released for planning purposes only on April 1, 2025, by HDR Engineering, Inc., Texas Board of Professional Engineers, and Land Surveyors Registered Firm F-754, Texas Board of Professional Geoscientists Firm No. 50226. It is not to be used for any other purpose.

**PE SEAL**

April 1, 2025

Ron Branyon, PE  
HDR Engineering, Inc.

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# 1 Introduction and Planning Group Action

## 1.1 Summary of Amendments and Associated Evaluations

Every five years, the 15 regional flood planning groups (RFPG) develop and adopt regional flood plans (RFP), that are submitted to the Texas Water Development Board (TWDB) for approval. The TWDB compiles the regional flood plans into a state flood plan. During the five-year span between regular, regional flood plan adoptions, plans may be amended to incorporate additional flood risk reduction solutions (FMX) or to reflect changes to conditions or new information.

During the Amendment #2 to the 2023 San Antonio RFP the RFPG received requests to assess seven (7) flood mitigation projects (FMP) and eleven (11) flood management evaluations (FME) to be amended. Six of the FMPs are new projects to be recommended in the plan, one is a modification of an FMP already recommended. Nine of the FMEs are newly-recommended through Amendment #2, two are modifications to FMEs already recommended, and one FME has been removed because it was amended as an FMP. The San Antonio RFPG approved and adopted the Amendment #2 Amended 2023 San Antonio Regional Flood Plan on March 17, 2025, and directed the San Antonio River Authority (SARA) and technical consultant to submit the Amended 2023 San Antonio Regional Flood Plan to the TWDB on or before April 1, 2025.

## 2 Consistency with Rules and Statute

Information about how the RFPG ensured consistency with all relevant administrative rules and statutes. At minimum this should include assurances the regional flood plan amendment:

- Was adopted by the RFPG in accordance with 31 TAC §361.21 related to notice requirements;
- Satisfies the requirements for regional flood plans adopted in the guidance principles pursuant to TWC §16.062(h)(1);
- Adequately provides for the preservation of life and property and the development of water supply sources, where applicable pursuant to TWC §16.062(h)(2); and
- Does not negatively affect a neighboring area, pursuant to TWC §16.062(h)(3).

This Amendment #2 satisfies all administrative rules and statutes.

## 3 Modifications and Additions to the 2023 Regional Flood Plan

### 3.1 Changes made to the Executive Summary

The Executive Summary was updated to reflect all the changes Amendment #2 made in the following Chapters 1-10. General changes to specific sections are as follows:

- ES.5.2.2: FMX numbers updated to account for Amendment #2.
- ES.6.1: Impacted numbers updated to account for Amendment #2.
- ES.9.4: Updated to account for Amendment #2 financing needs.
- ES.10.2: Updated to include Amendment #2 adoption.

The revisions implemented within each modified section are detailed below.

#### ES.5.2.2 Recommended Flood Management Projects, Evaluations and Strategies

A total of ~~77~~ 74 potential FMPs were identified and evaluated by the San Antonio RFPG. Of these, all were recommended, representing a combined total of ~~\$816,948,000~~ 738,955,000 of flood mitigation infrastructure projects need across the region.

A total of ~~171~~ 163 potential FMEs were identified and evaluated by the San Antonio RFPG. Of these, all were recommended, representing a combined total of ~~\$689,068,000~~ 349,416,000 of FME needs across the region. The recommended FMEs include ~~145~~ 140 project planning/evaluation projects and ~~22~~ 20 watershed planning projects, and ~~4~~ 3 flood resiliency projects.

#### ES.6.1 Impacts of Regional Flood Plan

The evaluation estimated the implementation of recommended FMPs could benefit ~~3,857~~ 3,727 exposed structures, ~~8,900~~ 8,632 population in the floodplain, 2 critical facilities, ~~43~~ 51 LWCs, and ~~59~~ 63 miles of road at risk in the future 100-year flood hazard.

### ES.9.4 Overall Need for Funding

A total of ~~33~~ 34 entities within the SAFPR sponsored the FMEs, FMSs, and FMPs that are recommended by the RFPG. These ~~33~~ 34 sponsors were contacted about funding needs to implement these projects; to date, 48 19 sponsors have responded, which represents a response rate of ~~55~~ 56 percent.

The total cost for all the FMP, FME, and FMS projects recommended in the San Antonio RFP is \$1,506,715,000 ~~1,452,030,000~~. Based on the funding split specified by each sponsor for each project, it is projected that \$1,222,136,000 ~~1,199,759,000~~ in state and federal grant funding is needed for implementation of these projects, with the remainder provided by local entities.

### ES.10.2 Adoption of Plan

The Draft, Final, and Amended 2023 San Antonio Regional Flood Plan were developed and adopted in accordance with 31 TAC §361.50 and §361.60–361.61 and meeting requirements under the Texas Open Meetings Act and Public Information Act. On July 25, 2022, the San Antonio RFPG approved and authorized the submittal of the Final 2023 San Antonio Regional Flood Plan and associated data to the TWDB. On June 27, 2023, the San Antonio RFPG approved and authorized the submittal of the Amendment #1 Amended 2023 San Antonio Regional Flood Plan and associated data to the TWDB.

The San Antonio RFPG approved and adopted the Amendment #2 Amended 2023 San Antonio Regional Flood Plan on March 17, 2025 and directed the SARA and technical consultant to submit the Amended 2023 San Antonio Regional Flood Plan to the TWDB on or before April 1, 2025.

## 3.2 Changes made to the Chapter 5

This chapter's objective is to identify, assess and recommend potential FMEs, FMSs and FMPs. During Amendment #2 the RFPG received requests to assess seven flood mitigation projects (FMP) and eleven flood management evaluations (FME) to be amended in the 2023 regional flood plan. Six of the FMPs are new projects to be recommended in the plan, one is a modification of an FMP already recommended. Nine of the FMEs are newly-recommended through Amendment #2, two are modifications to FMEs already recommended, and one FME has been removed because it was amended as

an FMP. This chapter was updated to reflect these additional FMPs and FMEs. General changes to specific sections are as follows:

- 5.1.2: Updated sponsors responses based on Amendment #2 outreach.
- 5.1.3: FMP and FME numbers updated to account for Amendment #2.
- 5.1.4: Updated to account for Amendment #1 and #2 language.
- 5.2: Updated to account for Amendment #2 language.
- 5.2.2: Updated to account for Amendment #2 meetings and amended FMPs and FMEs results / figures.
- Updated Table 5-5 to include Cost and No Negative Impact Determination.

The revisions implemented within each modified section are detailed below.

### 5.1.2 Screening of FMPs, FMEs, and FMSs

The RFPG conducted a targeted outreach effort to each potential sponsoring community to discuss the initial list of potential actions for potential additions, deletions, or edits to the actions and their attributes, and to verify that they are a willing sponsor. A total of 440 **111** potential sponsors were contacted; approximately ~~38~~ **39** responded and met via online video conferences for discussion.

### 5.1.3 Initial Screening Result

#### 5.1.3.1 Potentially Feasible FMPs

The San Antonio RFPG was able to identify 74 **77** potentially feasible FMPs. These results are summarized in the TWDB-required Table 13 Potentially Feasible Flood Mitigation Projects Identified by RFPG in Appendix A. These results include the amended projects developed in **Amendment #1 (Task 12) Task 12 and Amendment #2**. The Task 12 efforts are detailed in Section 5.1.4 and changes tracked in the Amendment Updates Tracked by Section.

#### 5.1.3.2 Potentially Feasible FMEs

All potential FMEs that were identified are listed with their supporting technical information in TWDB-required Table 12 Potential Flood Management Evaluations Identified by RFPG in Appendix A. In total, 463 **171** potential FMEs were identified and evaluated. The evaluation of FMEs relied on the compilation of planning level data to gage alignment with regional

strategies and flood planning guidance, potential flood risk within the SAFPR, and funding need and availability. These results include the amended projects developed in **Amendment #1 (Task 12)** Task 12 **and Amendment #2**. Task 12 is detailed in Section 5.1.4 and changes tracked in Amended Changes section.

#### 5.1.4 Additional Flood Mitigation Actions for the Amended 2023 San Antonio RFP

After the Final San Antonio Regional Flood Plan was submitted in January 2023, additional flood mitigation actions were evaluated during **Amendment #1 and Amendment #2** Task 12. **Amendment #1 was included in Task 12**. The objective of Task 12 was to perform identified potential FMEs and identify additional FMPs, as allowed by the allocated budget:

- Evaluate flood risks in areas with currently limited flood risk data
- Evaluate flood risk reduction solutions, including feasibility studies and preliminary engineering
- Identify, evaluate, and recommend additional FMPs

~~Task 12~~ **Both Amendments #1 and #2** applied the same screening and recommendation process as Task 4B/5 and outlined throughout Chapter 5.

#### 5.2 Task 5 – Recommendation of FMEs and FMPs and Associated FMPs

The objective of Task 5 is for RFPGs to use the information developed under Task 4 to recommend flood mitigation actions for inclusion in the San Antonio RFP. Task 5 was essentially a continuation of Task 4B. As described above, Task 4B was an initial technical evaluation and screening of potential FMEs and potentially feasible FMSs and FMPs. Task 5 and the remainder of this chapter focus on how the San Antonio RFPG used this information to further evaluate and develop its recommendations for the inclusion of flood mitigation actions in the San Antonio RFP. This chapter summarizes and documents:

- The process undertaken to make final recommendations on flood mitigation actions
- The potential FMEs and potentially feasible FMSs and FMPs identified and evaluated under Task 4B, and whether these actions are recommended by the San Antonio RFPG

- The entities that will benefit from the recommended flood mitigation actions
- Additional recommendations of FMEs and FMPs evaluated during Task 12 Amendment #1 and Amendment #2

## 5.2.2 Recommendations Evaluation Summary of Screening Results:

### 5.2.2.1 Overview Process

#### Technical Committee Formation

Additionally, for the Amended Amendment #1 and Amendment #2 of the 2023 San Antonio RFP, the technical committee met on:

- September 20, 2022
- December 7, 2022
- February 9, 2023
- March 9, 2023
- April 11, 2023
- May 11, 2023
- January 28, 2025
- February 15, 2025

#### Technical Committee Review and Approval of Recommendations

During the May 11, 2023, Technical Committee meeting, the committee reviewed and forwarded recommendations for the Amendment #1 additional amended 22 FMEs and 44 FMPs, to the full San Antonio RFPG for approval.

During the February 15, 2025, Technical Committee meeting, the committee reviewed and forwarded recommendations for the Amendment #2 additional amended 11 FMEs and 7 FMPs, to the full San Antonio RFPG for approval.

#### RFPG Review and Approval of Recommendations

On June 27, 2022, the San Antonio RFPG voted to recommend FMEs, FMPs, and FMSs as presented.

On May 23, 2023, the San Antonio RFPG voted to recommend the amended Amendment #1 FMEs and FMPs as presented.

On March 17, 2025, the San Antonio RFPG voted to recommend the Amendment #2 FMEs and FMPs as presented.

### 5.2.2.2 Flood Mitigation Projects

Seventy-one~~seven~~ potential FMPs were identified and evaluated by the San Antonio RFPG. Of these, all were recommended, representing a combined total of \$738,955,000 ~~\$816,948,000~~ of FMP need across the SAFPR. The recommended project costs, descriptions, BCAs, and No Negative Impact Determination are included in Table 5.5. The full list of FMPs and supporting technical data is included in the TWDB-required Table 13 Potential Flood Management Projects Identified by RFPG in Appendix A, and Map 17 Extent of Potential Flood Mitigation Projects in Appendix B. Recommended FMPs are presented in the TWDB-required Table 16 Flood Management Projects Recommended by RFPG in Appendix A, and Map 20 Recommended Flood Mitigation Projects in Appendix B. Overall, the recommended FMPs are expected to remove from the floodplain 3,727 ~~3,857~~ structures, 8,632 ~~8,900~~ people, 2 critical facilities, 43 ~~51~~ LWCs, and 59 ~~63~~ miles of flooded road. The impacts of these FMPs on the SAFPR are further discussed in Chapter 6 Impact and Contribution of the San Antonio Regional Flood Plan.

Figure 3-1. Geographical Distribution of Recommended FMPs **UPDATED**

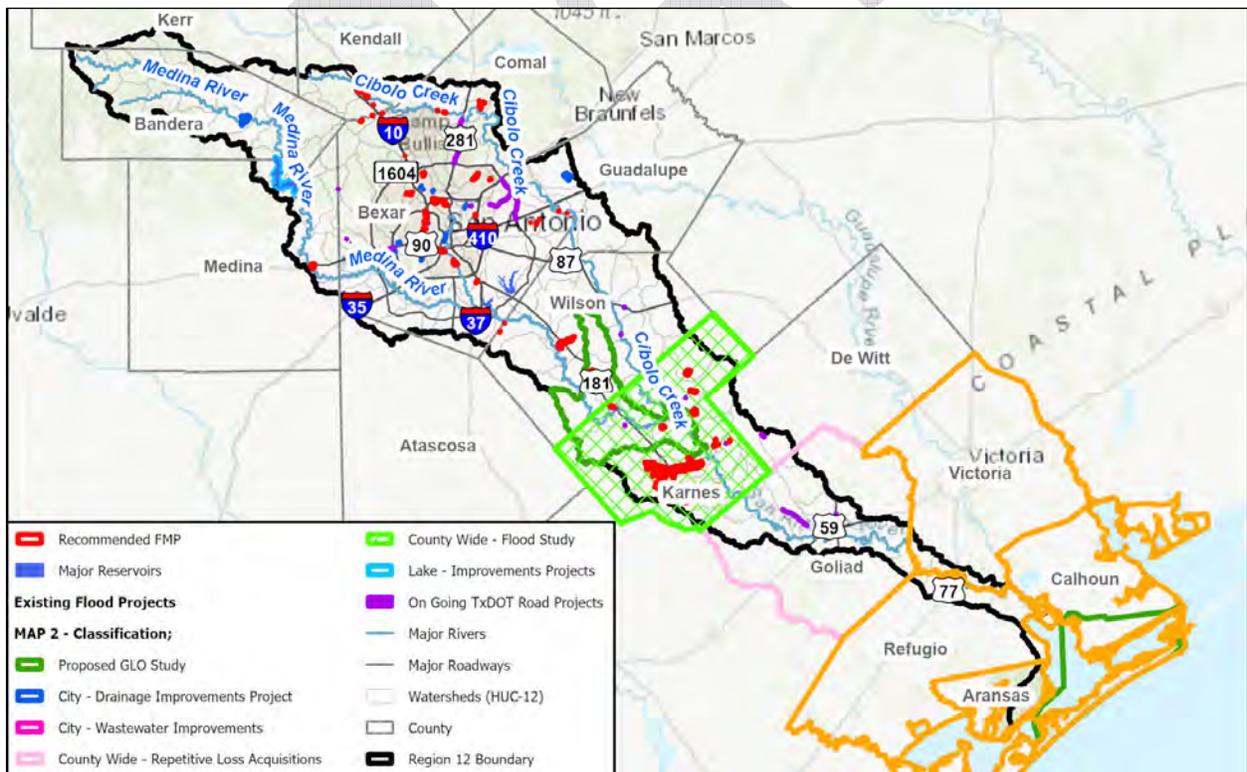


Table 3-1. Summary of FMPs Recommended by the RFPG

Project Title	Project Description	Cost	Community	BCA	No Negative Impact Determination / Name
Judson and Lookout LWC Improvement	Upgrade the low water crossings and the connecting/downstream channel. The project proposes a combination of roadway improvements, culvert upgrades, and channel improvements to eliminate flooding of the roadways.	\$6,301,200 \$6,989,000	City of San Antonio	0.9 1.4	Model / ID 120000000067 120000000022
Allsup Flagle Area Drainage Project	Drainage improvement at intersection of Allsup Street and Flagle Street. Components include: road reconstruction with inlets and underground 4'x2' SBC storm sewer system.	\$2662000	City of San Antonio	0.10	Model / ID 120000000065
Blue Wing Road Realignment	Realigning Blue Wing Rd. to not encroach on the 100-year future conditions and remove a stream crossing from flooding.	\$7211000	City of San Antonio	2.50	Model / ID 120000000066
Escondido Dam 1 Rehabilitation and Flood Mitigation	A high-hazard potential dam rehabilitation project to bring the dam up to modern safety standards. The planning and design phases have already been funded and completed, this project seeks construction phase funding.	\$9014000	San Antonio River Authority	0.03	Model / ID 120000000068

Project Title	Project Description	Cost	Community	BCA	No Negative Impact Determination / Name
Escondido Dam 4 Rehabilitation and Flood Mitigation	A high-hazard potential dam rehabilitation project to bring the dam up to modern safety standards. The planning and design phases have already been funded and completed, this project seeks construction phase funding.	\$15101000	San Antonio River Authority	0.26	Model / ID 120000000070
Escondido Dam 12 Rehabilitation and Flood Mitigation	A high-hazard potential dam rehabilitation project to bring the dam up to modern safety standards. The planning and design phases have already been funded and completed, this project seeks construction phase funding.	\$16539000	San Antonio River Authority	0.33	Model / ID 120000000069
Tributary F to Salado Creek Area Drainage Project Alt 1	The project includes widening the main channel, upgrading 2 stream crossings, raising road Stahl Rd, constructing offline pond and natural bypass channels. The project removes structures from the 100yr flood and provides unflooded access for the 25yr.	\$26778000	City of San Antonio	0.8	Model / ID 120000000064

### 5.2.2.3 Flood Management Evaluations

A total of ~~463~~ 171 potential FMEs were identified and evaluated by the San Antonio RFPG. Of these, all were recommended, representing a combined total of ~~\$349,416,000~~ \$689,068,000 of FME need across the SAFPR. The number and types of studies recommended by the San Antonio RFPG are summarized in Table 3-2 and shown in Figure 3-2. The full list of FMEs and supporting technical data is included in the TWDB-required Table 12 Potential

Flood Management Evaluations Identified by RFPG in **Error! Reference source not found.**, and Map 16 Extent of Potential Flood Management Evaluations and Existing Mapping Needs in **Error! Reference source not found.** Recommended FMEs are presented in the TWDB-required Table 15 Flood Management Evaluations Recommended by RFPG in **Error! Reference source not found.**, and Map 19 Recommended Flood Management Evaluations in **Error! Reference source not found.** Overall, the recommended FMEs represent more than 25,300 **26,900** square miles of contributing drainage area and provide comprehensive coverage of the SAFPR.

Figure 3-2. Geographical Distribution of Recommended FMEs **UPDATED**

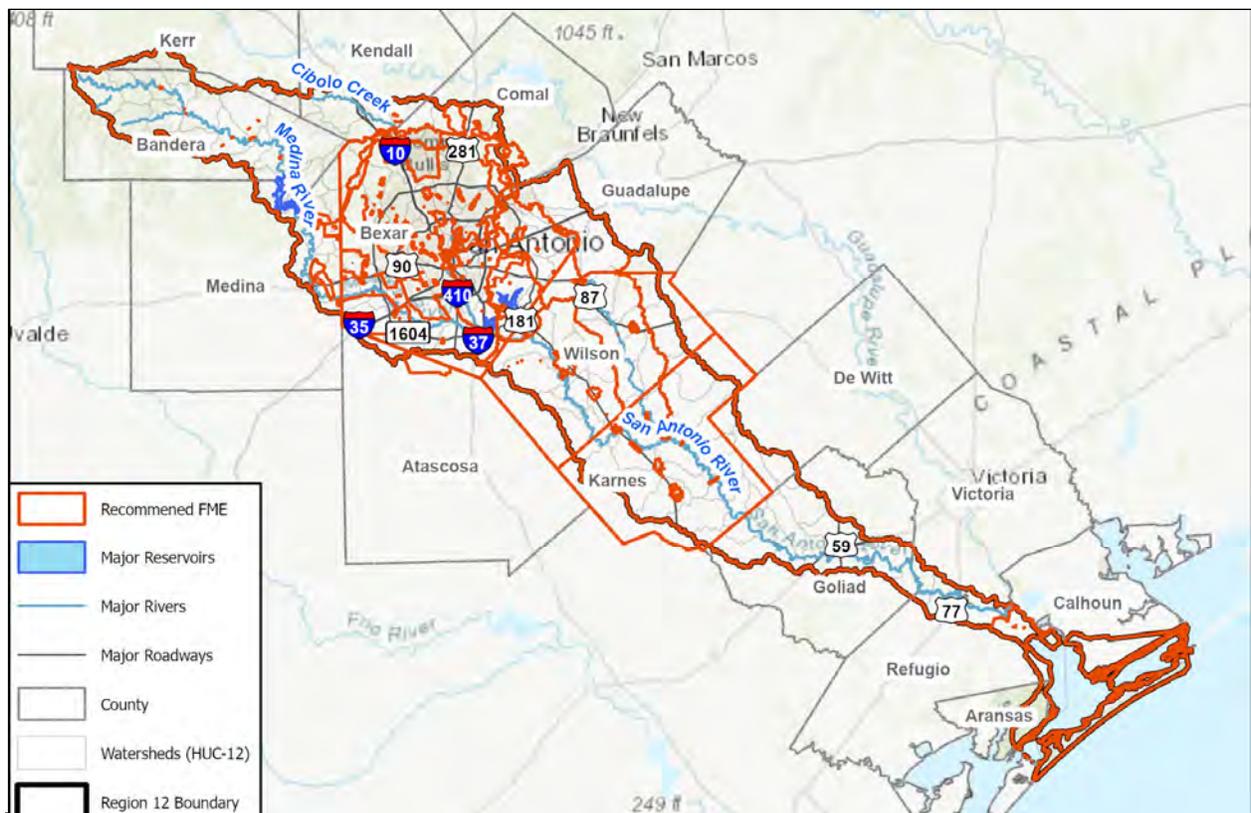


Table 3-2. Summary of FMEs Recommended by the RFPG

Type	Total
Project Planning	440 <b>145</b>
Watershed Planning	<del>20</del> <b>22</b>
Preparedness	<del>3</del> <b>4</b>

### 3.3 Changes made to the Chapter 6

The objective of Chapter 6 is to assess impacts to the region from recommended projects. This chapter was updated to account for the additional projects recommended through Amendment #2. General changes to specific sections are as follows:

- 6.1: FMP impact numbers updated to account for Amendment #2.
- 6.1.1: Impact numbers updated to account for Amendment #2.
- 6.1.2: Reduction in floodplain change updated to account for Amendment #2.
- 6.2: Population/structures/critical facilities impacted updated to account for Amendment #2.
- 6.3: LWC/Roads impacted updated to account for Amendment #2.

The revisions implemented within each modified section are detailed below.

#### 6.1 Impacts of San Antonio Regional Flood Plan

For example, implementation of recommended FMPs is expected to remove an estimated ~~3,727~~ 3,857 at-risk structures from flood-prone areas.

##### 6.1.1 Floodplain Management and Modeling

As reported in Chapter **Error! Reference source not found. Error! Reference source not found.**, 463 171 FMEs are recommended. When implemented, these FMEs will close data and information gaps and set in motion the process of developing and implementing flood risk reduction solutions to ultimately reduce exposure to flood hazards. A total of ~~20~~ 22 recommended FMEs are specifically focused on watershed modeling and mapping. A total of 440 146 FMEs include modeling and mapping to identify flood risk, flood mitigation alternatives analysis and feasibility studies, and preliminary engineering studies, among others.

##### 6.1.2 Reduction in Flood Impacted Areas

Existing flood hazard areas were identified and quantified for the 1 percent annual chance flood events. Table 3-3 shows the existing versus proposed flood impacted area in square miles for the recommended FMPs. By implementing the recommended FMPs, these flooded project areas will be

reduced by approximately ~~65~~ **86** percent, or a reduction in approximately ~~3.6~~ **4.1** square mile, removing many structures, population, LWC, and roads.

**Table 3-3. Reduction in Existing Flood-Impacted Areas**

Annual Chance Event	Project Area in Floodplain (square miles)	Reduction Due to the FMP (square miles)	Change in Area (square miles)	Change in Area
1.0%	<del>9.0</del> <b>29.2</b>	<del>5.8</del> <b>4.1</b>	<del>3.2</del> <b>25.1</b>	<del>65%</del> <b>86%</b>

### 6.2 Benefits to Population and Structures at Risk

Since the land area being affected will be reduced, the subsequent population benefitting from the San Antonio RFP within the SAFPR is estimated to be ~~8,632~~ **8,900**.

**Table 3-4. Population Removed from the Floodplain**

Annual Chance Risk Flood	Existing Population Impacted	Estimated Population Removed after Implementation	Decrease in Population Impacted
1.0%	67,738	<del>8,632</del> <b>8,900</b>	13%

**Table 3-5. Structures Removed from the Floodplain**

Annual Chance Risk Flood	Existing Structures Impacted	Estimated Structures Removed after Implementation	Decrease in Structures Impacted
1.0%	19,123	<del>3,727</del> <b>3,857</b>	<del>19</del> <b>20</b> %

### 6.3 Low Water Crossings and Impacted Roadways

**Table 3-6. LWCs Removed from the Floodplain**

Annual Chance Risk Flood	Existing LWCs	LWCs Removed After Implementation	Decrease in LWCs
1.0%	1,570	<del>43</del> <b>51</b>	3%

**Table 3-7. Roads Removed from Flood Risks**

Annual Chance Risk Flood	Existing Roads in Floodplain (Miles)	Roadways Removed from Floodplain After Implementation	Decrease in Roads in Floodplain
1.0%	753	<del>59</del> <b>63</b>	8%

## 3.4 Changes made to the Chapter 9

The aim of this chapter is to assess the funding needs of local sponsors and propose what role the state should have in financing the recommended FMPs, FMEs, and FMSs. Section 9.4 was updated to account for Amendment #2 financing needs. The revisions implemented into section 9.4 are detailed below.

### 9.4 Summary of Survey Results and Funding Needs

A total of ~~33~~ 34 entities within the SAFPR sponsored the FMPs, FMEs, and FMSs that are recommended by the San Antonio RFPG. These ~~33~~ 34 sponsors were contacted about funding needs to implement these projects, and to date, ~~48~~ 19 have responded, which represents a response rate of ~~55~~ 56 percent. TWDB-required Table 19 FMS, FMP, FME Funding Survey in **Error! Reference source not found.** presents the results of the survey for each FMP, FME, and FMS. A 25/75 percent split was entered for those entities that did not respond.

The total cost for all the FMP, FME, and FMS projects recommended in the San Antonio RFP is ~~\$1,452,030,000~~ 1,506,715,000. Based on the funding split specified by each sponsor for each project, it is projected that ~~\$1,199,759,000~~ 1,222,136,000 in state and federal grant funding is needed for implementation of these projects, with the remainder provided by local entities.

## 3.5 Changes made to the Chapter 10

The objective of chapter 10 was to document how the San Antonio RFPG navigated meetings and outreach during the flood planning process. This chapter was updated to account for the additional meetings conducted during Amendment #2. General changes to specific sections are as follows:

- 10.5: Added the additional RFPG amendment meeting dates.
- 10.7: Added information about amendment approval and submittal.

The revisions implemented within each modified section are detailed below.

### 10.5 San Antonio Regional Flood Planning Group Meetings

The San Antonio RFPG and Outreach Committee met regularly in accordance with TWDB requirements and the approved bylaws. The purpose of the Outreach Committee was to facilitate public involvement in the planning

process. The San Antonio RFPG and Outreach Committee met on a more frequent basis as needed in order to facilitate and direct the flood planning of the SAFPR. The following summarizes meeting dates for each entity:

San Antonio RFPG meetings:

- 2025: February 13, March 17
- 2024: December 03
- 2023: February 21, April 20, May 23, and June 27

## 10.7 Plan Adoption

The Draft, Final and Amended 2023 San Antonio Regional Flood Plan were developed and adopted in accordance with 31 TAC §361.50 and §361.60–361.61. The San Antonio RFPG approved and adopted the Final 2023 San Antonio Regional Flood Plan on December 19, 2022 and directed the SARA and technical consultant to submit the Final 2023 San Antonio Regional Flood Plan to the TWDB on January 10, 2023. The San Antonio RFPG approved and adopted the Amendment #1 Amended 2023 San Antonio Regional Flood Plan on June 27, 2023 and directed the SARA and technical consultant to submit the Amended 2023 San Antonio Regional Flood Plan to the TWDB on or before July 14, 2023. The San Antonio RFPG approved and adopted the Amendment #2 Amended 2023 San Antonio Regional Flood Plan on March 17, 2025, and directed the SARA and technical consultant to submit the Amended 2023 San Antonio Regional Flood Plan to the TWDB on or before April 1, 2025.

## 4 Modifications and Additions to Appendices

### 4.1 Appendix A

Updated to account for projects received for Amendment #2 to the 2023 San Antonio Regional Flood Plan. The updates include adding, updating, and removing FMPs and FMEs. There were three (3) new FMPs added, ID 123000081, 123000082, 123000086. There was one (1) FMP that was updated from the previous submittal, ID 123000022. There was one (1) FME that was removed because it was updated to three (3) new FMPs: removed FME ID 121000120 and added new FMP IDs 123000083, 123000084, 123000085. There were nine (9) new FMEs added, ID 121000185, 121000186, 121000187, 121000188, 121000189, 121000190, 121000191,

121000192, 121000193. There were two (2) FMEs that were updated from the previous submittal, ID 121000028 and 121000084.

The following Exhibit C tables were updated to reflect Amendment #2:

- Table 12. Potential Flood Management Evaluations Identified by RFPG
- Table 13. Potentially Feasible Flood Mitigation Projects Identified by RFPG
- Table 15. Flood Management Evaluations Recommended by RFPG
- Table 16. Potentially Feasible Flood Mitigation Projects Recommended by RFPG
- Table 19. FMS, FMP, FME Funding Survey
- Table 20. FMP Project Details Scoring Summary Table
- Table 21. No Negative Impact Determination Table
- Hydrologic and Hydraulic Model Upload Table

## 4.2 Appendix B

Updated to account for projects recommended in Amendment #2 to the 2023 San Antonio Regional Flood Plan:

- Map 16A. Extent of Potential Flood Management Evaluations
- Map 16B. Extent of Modeling Gaps and Flood Management Evaluations
- Map 16C. Modeling Gaps and Flood management Evaluations Existing Models
- Map 17. Extent of Potential Flood Mitigation Projects
- Map 19. Recommended Flood Management Evaluations
- Map 20. Recommended Flood Mitigation Projects
- Map 22. Model Coverage

## 4.3 Appendix E

Added the seven (7) FMP and eleven (11) FME Summary Sheets for the projects recommended by Amendment #2.

## 5 Modifications and Additions to the Geodatabase

The Geodatabase (GDB) was updated to account for projects recommended by Amendment #2 to the 2023 San Antonio Regional Flood Plan.

The Geodatabase Change Log Excel Document that tracks all the changes made to the GDB was submitted along with the Amendment #2.

**AGENDA ITEM NO.8 – UPDATE ON TECHNICAL  
CONSULTANT WORK AND SCHEDULE**



## Agenda Item 8: Update on Technical Consultant Work and Schedule

### Cycle II Deliverables

- Technical Memo – Due January 7, 2026
- List of FMEs to be Performed by TWDB – Due March 26, 2026
- Draft 2028 RFP – Due May 26, 2027
- Final 2028 RFP – Due January 10, 2028

# Tasks 1 – 4B

## Preparation for Tech Memo

Activity	Planning SOW Task #	2025												2026					
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Flood Plan Amendment																			
Planning Area Description	1																		
Existing Condition Flood Risk Analyses	2A																		
Future Condition Flood Risk Analyses	2B																		
Evaluation and Recom. on Floodplain Management Practices	3A																		
Flood Mitigation Need Analysis	3B																		
Flood Mitigation and Floodplain Management Goals	3C																		
Public Meeting																			
Identification and Evaluation of Potential Solutions	4A																		
Preparation and Submission of Tech. Memo. to the TWDB	4B																		DUE (JAN 7 2025)

## Stakeholder Survey

- Targeting outreach in April – May 2025
- TWDB-identified Stakeholders
  - Municipalities
  - Counties
  - Flood Authorities
  - Groundwater Conservation Districts
  - Others
- Available for RFPG comment by March 28<sup>th</sup>