



Region 11: Guadalupe Regional Flood Planning Group Meeting

Wednesday, March 30, 2022
2:00pm

Agenda Item 1

Call to Order

1. Attendance
2. Individuals attending in-person, please sign-in

Agenda Item 2

Welcome

Agenda Item 3

Approval of Meeting Minutes

1. Approval of meeting minutes from February 9, 2022 Region 11 RFPG Meeting

Meeting Minutes
Region 11 Guadalupe Regional Flood Planning Group Meeting
February 9, 2022 at 2:00 PM
Guadalupe-Blanco River Authority River Annex (905 Nolan Street, Seguin, TX 78155)
or
GoToWebinar Virtual Meeting

Roll Call:

<u>Voting Member</u>	<u>Interest Category</u>	<u>Present (x) / Absent () / Alternate Present (*)</u>
Doug Miller Melissa Reynolds*	<i>Agricultural</i>	X
John Johnston	<i>Counties</i>	X
Lon Shell	<i>Counties</i>	X
Bobby Christmas	<i>Electric Generating Utilities</i>	X
Annalisa Peace Vanessa Puig-Williams*	<i>Environmental</i>	X
Beth Parker Doug Sethness*	<i>Flood districts</i>	*
Kevin Stone	<i>Industries</i>	
Joseph Pantalion Laurie Moyer* John Espinoza**	<i>Municipalities</i>	X
Ken Gill	<i>Municipalities</i>	X
Dr. Kimberly Meitzen	<i>Public</i>	X
R. Brian Perkins Charlie Hickman*	<i>River Authorities</i>	X
Ray Buck Jonathan Letz*	<i>River Authorities</i>	
Gian Villarreal Tami Norton*	<i>Small Business</i>	X
Ronald (Ron) Fieseler	<i>Water Districts</i>	X
Steven Fonville	<i>Water Utilities</i>	

<u>Non-voting Member</u>	<u>Agency</u>	<u>Present(x)/Absent()/ Alternate Present (*)</u>
Sue Reilly Beth Bendik*	Texas Parks and Wildlife Department	X
Jim Guin	Texas Division of Emergency Management	
Jami McCool Kristin Lambrecht*	Texas Department of Agriculture	
Allen Nash	Texas State Soil and Water Conservation Board	X
Kris Robles Teresa Williams*	General Land Office	X
Morgan White Ryke Moore*	Texas Water Development Board (TWDB)	X
Joel Klumpp Brittney Wortham-Teakell*	Texas Commission on Environmental Quality	

Don Durden	Public	X
Suzanne Scott	Region 12 Liaison	
Patrick Brzozowski Scott Hartl*	Region 10 Liaison	X

Quorum:

Quorum: **Yes**

Number of voting members or alternates representing voting members present: **12**

Number required for quorum per current voting positions of 15: **8**

Other Meeting Attendees:

Lauren Willis, GBRA (Facilitator)	John Espinoza, City of San Marcos
Ram Mendoza, GBRA (IT)	Bobby Mengden, Pape-Dawson
Jay Scanlon, Freese & Nichols, Inc.	Tom Hegemier, Doucet
Adam Conner, Freese & Nichols, Inc.	Mary Ellen Schulle, Kendall County
Vanessa Escobar, Blanton & Associates	Richard Tobolka, Kendall County
Ben Eldridge, Cibolo Center for Conservation	Rachael Lindsey, Hill Country Conservancy
Humberto Ramos, CRWA	Laura Haverlah, H2O Partners
Summer Rohwedder, City of New Braunfels	Daniel Harris, Scheibe Consulting
Jeff Haeber, Jones Carter	Lisa McCracken Mairs, USACE
Melissa Reynolds, City of Seguin	Jennifer Urban, DeWitt County DD#1
Michael Sharp, City of Seguin	Omar Maldonado, GCGCD
Oscar Arevalo, City of Seguin	Virginia Parker
John Nett, City of Buda	Monica Jacobs
John Westbrook, City of Luling	Kay Vincent
Matt Nelson, TWDB	Tami Norton
Reem Zoun, TWDB	Ray Don Tilley
Kyle Burow, City of Kerrville	
Laurie Moyer, City of San Marcos	

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

AGENDA ITEM NO. 1: Call to Order

Chairman Doug Miller called the meeting to order at 2:05 PM. Lauren Willis called roll of the planning group members to record attendance and a quorum was established.

AGENDA ITEM NO. 2: Welcome

Chairman Miller welcomed members to the meeting.

AGENDA ITEM NO. 3: Approval of Minutes from the December 1, 2021 Region 11 RFPG Meeting

Chairman Miller opened discussion on approving the minutes from the December 1 Region 11 RFPG Meeting.

A motion was made by Bobby Christmas to approve the December 1, 2021 Region 11 RFPG Meeting minutes. Ron Fieseler seconded the motion. The meeting minutes were approved by consensus.

AGENDA ITEM NO. 4: Region 11 Guadalupe RFPG Chair Updates

Chairman Miller did not have any updates for the group.

AGENDA ITEM NO. 5: Texas Water Development Board (TWDB) Updates

Morgan White reviewed that the Technical Memo #1 was considered administratively complete and the notice to proceed to task 5 was sent. TWDB is reviewing the Technical Memo #1 in more depth to provide formal feedback by late Spring (April or May). The Contract Amendment No.1 is routing internally within TWDB and will be sent to GBRA by the March meeting. TWDB has scheduled one meeting, Chairs conference call on March 2nd and will be sending out a newsletter before the end of February.

AGENDA ITEM NO. 6: Guadalupe Region 11 RFPG Sponsor Guadalupe-Blanco River Authority (GBRA) Updates

Lauren Willis gave an update on changes made to the guadalupeRFPG.org website and gave an update on the progress of scheduling Dr. Troy Dorman to speak to the group.

AGENDA ITEM NO. 7: Discussion and potential action regarding administrative expenses to be submitted to the Texas Water Development Board for reimbursement.

Lauren Willis reviewed the administrative costs for FY22Q1 (September 1, 2021 – November 30, 2021).

A motion was made by Annalisa Peace to approve the administrative expenses for FY22Q1 for reimbursement. Bobby Christmas seconded the motion. The motion was approved by consensus.

AGENDA ITEM NO. 8: Consider nominating and taking action electing RFPG Officers for 2022 (Chair, Vice Chair, Secretary and two members-at-large).

Doug Miller opened the floor to discussion and reviewed the individuals currently holding the RFPG Officers positions.

A motion was made by Doug Sethness to re-nominate and elect the officers currently serving as Chair, Vice Chair, Secretary and two members-at-large. Joe Pantalione seconded the motion. The vote passed by a vote of 12 Ayes, 0 Nays.

AGENDA ITEM NO. 9: Discussion regarding the solicitation to fill the vacant voting position in the Flood Districts interest category.

Doug Miller opened the floor to discuss the vacant voting position in the Flood Districts interest category and reviewed the process for posting and interviewing.

AGENDA ITEM NO. 10: Discussion and potential action regarding Region 11 RFPG Technical Consultants work and schedule.

Jay Scanlon overviewed the Agenda and the TWDB Process and Update. Vanessa Escobar, Blanton & Associates updated the RFPG on public participation & outreach and reviewed the summary of data/information received to date by the technical consultants. On the public comment tracking matrix, it was brought to the attention that Joe Pantalione is listed under the Public category instead on the Voting Members category. Gian Villarreal stated that other flood planning groups are using LinkedIn to promote participation and take public comments.

a. Discussion and potential action approving the Technical Memorandum No. 2 to be submitted to the TWDB by March 7, 2022.

Jay Scanlon discussed Technical Memorandum No.2 that focuses on presenting data (flood hazard zones), led an overview of the maps, and gave an update on the Dashboard for the Guadalupe basin. A motion was made by Ron Fieseler to approve the technical memorandum No. 2 subject to revisions based on comments that have been submitted for the ultimate submittal to the TWDB. Brian Perkins seconded the motion. The vote passed by a vote of 12 Ayes, 0 Nays.

Jay Scanlon gave an update on project Milestones.

AGENDA ITEM NO.11: Consider date and agenda items for next meeting

The next meeting will be held on March 2, 2022 at 2:30pm and will be held in-person.

AGENDA ITEM NO. 12: Public General comments (Public comments limited to 3 minutes per speaker)

Doug Miller provided instructions for public comments. One public comment was received.

1. Mr. Ben Eldredge with the Cibolo Nature Center and Cow Creek Groundwater Conservation District spoke about the importance of natural infrastructure, specifically in the recharge zone. Would like for the RFPG members to consider the value of natural infrastructure with regards to future recommendations being made.

AGENDA ITEM NO. 13: Adjourn

Ron Fieseler made a motion to adjourn. The motion was seconded by Bobby Christmas. The motion passed by unanimous consent.

The meeting adjourned at 3:26 PM by Doug Miller.

Approved by the Region 11 Guadalupe RFPG at a meeting held on March 30, 2022.

Brian Perkins, SECRETARY

Doug Miller, CHAIR

Agenda Item 4 Presentation

Region 12 RFPG – Nature Based Solutions
and Floodplain Management Toolbox

Dr. Troy Dorman, PhD, PE, CFM

Director of Water Resources, South/Central Texas

Halff Associates, Inc.

SAN ANTONIO RIVER BASIN RFPG

NATURE BASED SOLUTIONS AND FLOODPLAIN MANAGEMENT
TOOLBOX

PRESENTED BY TROY DORMAN, PH.D., P.E., ENV-SP

TDORMAN@HALFF.COM

PH 210-704-1381



MEASURES THAT REDUCE RUNOFF TO MORE NATURAL CONDITIONS

- Green stormwater infrastructure practices...
 - Conservation Development
 - Trees
 - Preservation and Restoration
 - Natural areas and open space
 - Bioretention
 - Rain gardens
 - Vegetated swales
 - Permeable paving
 - Green roofs



HOW DO I MANAGE THE “BIG” FLOOD FOR RESILIENCY?

Watershed scale planning for development that reduces impacts.

GSI can be oversized to increase the storage/volume management.

Add traditional detention.

Integrated Stormwater Management



TWDB REGIONAL FLOOD PLANNING GUIDANCE PRINCIPLES

6) shall consider the extent to which **current floodplain management, land use regulations, and economic development practices increase future flood risks** to life and property and consider recommending adoption of floodplain management, land use regulations, and economic development practices to reduce future flood risk;

(10) shall consider the potential upstream and downstream effects, **including environmental**, of potential flood management strategies (and associated projects) on neighboring areas. In recommending strategies, RFPGs shall ensure that **no neighboring area is negatively affected** by the regional flood plan;

TWDB REGIONAL FLOOD PLANNING GUIDANCE PRINCIPLES

(17) shall include strategies and projects that provide for a balance of structural and **nonstructural flood mitigation measures, including projects that use nature-based features**, that lead to long-term mitigation of flood risk;

(24) shall consider natural systems and beneficial functions of floodplains, including flood peak attenuation and **ecosystem services**;

(27) shall encourage flood mitigation design approaches that **work with, rather than against, natural patterns and conditions of floodplains**;

TWDB REGIONAL FLOOD PLANNING GUIDANCE PRINCIPLES

(28) shall not cause long-term impairment to the designated water quality as shown in the state water quality management plan as a result of a recommended flood management strategy or project;

(36) shall consider benefits of flood management strategies to **water quality, fish and wildlife, ecosystem function, and recreation**, as appropriate;

(37) shall minimize adverse environmental impacts and be in accordance with adopted environmental flow standards;

Task 3B – Flood Mitigation Goals

Benefits / Overarching Goals	Goal 1 Flood Education and Outreach	Goal 2 Flood Warning and Readiness	Goal 3 Flood Studies and Analysis	Goal 4 Flood Prevention	Goal 5 Flood Property Acquisition	Goal 6 Flood Elevation and Proofing	Goal 7 Flood Infrastructure Projects
Protect life	●	●	●	●	●	●	●
Protect infrastructure		●	●	●	●	●	●
Protect property		●	●	●	●	●	●
Protect the environment			●	●	●		●
Protect/enhance water supply				●	●	●	●
Sustain the economy		●		●		●	●
Realize multiple benefits*				●	●		●
Increase public awareness	●	●	●	●	●		
Build community support	●	●	●	●			

● - Potential benefit

● - Benefit

* multiple benefits could include improved floodplain protection while improving water supply, increasing public recreation opportunities, etc.

The overarching intent of the goals

“to protect against the loss of life and property” by

- 1) identify and reduce the risk and impact to life and property that already exists, and
- 2) avoid increasing or creating new flood risk by addressing future development within the areas known to have existing or future flood risk.

GOAL SETTING - EDUCATION AND OUTREACH

Increase the amount of flood education and outreach opportunities to improve awareness of flood hazards and future participation throughout the flood planning region (FPR).

Specific Goal Statements	Short Term (2033)	Long Term (2053)	Potential Measurement
Increase the number of public outreach and education activities to improve awareness of flood hazards and benefits of flood planning in the FPR by X occurrences.	TBD	TBD	Number of public service announcements (emails, social media, news blasts)
Increase the opportunities for citizens to receive watershed and nature based solutions training and receive certificate enabling greater participation in flood risk/mitigation decisions	TBD	TBD	Number of entities delivering citizen watershed training and number of citizens trained
Increase the proficiency of floodplain managers across the region through training from TFMA, ASFPM and FEMA. Improve FPM knowledge of nature based solutions , floodplain preservation, and cost/benefit of traditional structural solutions.	TBD	TBD	Number of Public Agency Certified Floodplain Managers

GOAL SETTING NON-STRUCTURAL FLOOD PROJECTS

Reduce the amount of existing and future vulnerable properties within the FPR through property/easement acquisition, improved elevation and other flood proofing programs and initiatives

Specific Goal Statements	Short Term (2033)	Long Term (2053)	Potential Measurement
Increase the number of entities that have adopted a holistic watershed approach using existing Natural Flood Mitigation Features (NFMF) such as headwaters, buffers, and conservation easements for flood risk reduction as a basis for comprehensive subdivision regulations.	TBD	TBD	Number of entities that have implemented a holistic approach
Increase the number of entities which have completed an analysis for using existing Natural Flood Mitigation Features (NFMF) such as headwaters, buffers, and conservation easements.	TBD	TBD	Number of entities which have completed the analysis
Increase the number of acres of publicly protected open space by X as part of land conservation and acquisitions to reduce future impacts of flooding.	TBD	TBD	Number of Acres of publicly protected open space

FEMA STANDARD NFIP FLOOD PREVENTION ORDINANCE

SEC. 9-3. - STATEMENT OF PURPOSE.

It is the purpose of this chapter to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- (1) Protect human life and health;
- (2) Minimize expenditure of public money for costly flood control projects;
- (3) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (4) Minimize prolonged business interruptions;
- (5) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in floodplains;
- (6) Help maintain a stable tax base by providing for the sound use and development of flood prone areas in such a manner as to minimize future flood blight areas; and
- (7) Insure that potential buyers are notified that property is in a flood area.

FEMA STANDARD NFIP FLOOD PREVENTION ORDINANCE SEC. 9-4. - METHODS OF REDUCING FLOOD LOSSES.

In order to accomplish its purposes, this chapter uses the following methods:

- (1) Restrict or prohibit uses that are dangerous to health, safety or property in times of flood, or cause excessive increases in flood heights or velocities;
- (2) Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- (3) Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of floodwaters;
- (4) Control filling, grading, dredging and other development which may increase flood damage;
- (5) Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands.

EXAMPLE NFIP ORDINANCE HIGHER STANDARDS

Ordinance Section	Quick Summary	Technical or Regulatory	NFIP Connection
Duties of floodplain admin.	Best available data	Regulatory	Statement of Purpose(1,3,6)
General Standards	If in multiple flood zones, must meet most stringent requirements	Regulatory	Statement of Purpose(1,2,3,7)
	Elevation above BFE requirements	Technical/Regulatory	Statement of Purpose(1,2,3,7) Methods of reducing flood losses(2)
	Fill/disposal of materials in waterways/floodplain	Technical/Regulatory	Statement of Purpose(2,5,6) Methods of reducing flood losses(4,5)
Specific standards for A and AE zones	Residential new construction	Technical/Regulatory	Statement of Purpose(1,2,3,7) Methods of reducing flood losses(2)
	Residential redevelopment	Regulatory	Statement of Purpose(1,2,3,7) Methods of reducing flood losses(1)
	Nonresidential construction, new/improvements	Regulatory	Statement of Purpose(1,2,3,4,5,7) Methods of reducing flood losses(2)
	Floodway Encroachments prohibited	Regulatory	Statement of Purpose(1,2,7) Methods of reducing flood losses(3,4)
Standards for Subdivision proposals	Subdivision proposals to show special flood hazard areas	Technical/Regulatory	Statement of Purpose(1,2,7)
	Proposed subdivision to have unflooded access	Technical/Regulatory	Statement of Purpose(1,3,6,7) Methods of reducing flood losses(2)
	Unflooded access	Regulatory	Statement of Purpose(1,3,4,7)
	Lots < 1 acre no portion in floodplain	Regulatory	Statement of Purpose(1,2,3,7) Methods of reducing flood losses(1)
	Lots > 1 acre conditions for portion in floodplain	Technical/Regulatory	Statement of Purpose(1,3,7) Methods of reducing flood losses(2)
General Standard	Placement of electrical/mechanical systems	Regulatory	Statement of Purpose(1,4,5)
Specific Standards	Manufactured home placement	Regulatory	Statement of Purpose(1,3) Methods of reducing flood losses(1)
Subdivision Proposals	Specific placement of public utilities	Regulatory	Statement of Purpose(2) Methods of reducing flood losses (5)
	Future conditions design	Technical	Statement of Purpose(2,6) Methods of reducing flood losses(1,2)

EXAMPLE NFIP ORDINANCE HIGHER STANDARDS

Ordinance Section	Standard	Quick Summary	Technical or Regulatory	NFIP Connection
Duties of floodplain admin.	The floodplain administrator may obtain, review and reasonably utilize any base flood elevation data, hydrology and floodway data available from a federal, state or other source, in order to administer the provisions of article III.	Best available data	Regulatory	Statement of Purpose(1,3,6)
General Standards	Filling or the disposal of any materials which will diminish the water flow capacity of any waterway or floodplain defined by this chapter must be compensated with remedial action. An equal amount of storage volume must be created in another location of the same local watershed to compensate for the storage capacity lost.	Fill/disposal of materials in waterways/ floodplain	Technical/ Regulatory	Statement of Purpose(2,5,6) Methods of reducing flood losses(4,5)

EXAMPLE NFIP ORDINANCE HIGHER STANDARDS

Ordinance Section	Standard	Quick Summary	Technical or Regulatory	NFIP Connection
Specific standards for A and AE zones	<p>Residential: Redevelopment of existing structures. Redevelopment of existing habitable structure, other than rebuilding activity, within the one (1) percent annual chance (100-year) local or FEMA floodplain limits is not allowed. Rebuilding activity shall raise the finished floor above the Base Flood elevation as described in General Standards.</p>	Residential redevelopment	Regulatory	Statement of Purpose(1,2,3,7) Methods of reducing flood losses(1)
	<p>Encroachments are prohibited, including fill, new construction, substantial improvements and other development within the adopted local floodplain and regulatory floodway, except for activities allowed within drainageway protection zones as described in the subdivision ordinance, current version. Can apply to areas of shallow flooding, local floodplains, and floodways.</p>	Floodway Encroachments prohibited	Regulatory	Statement of Purpose(1,2,7) Methods of reducing flood losses(3,4)

EXAMPLE NFIP ORDINANCE HIGHER STANDARDS

Ordinance Section	Standard	Quick Summary	Technical or Regulatory	NFIP Connection
Standards for Subdivision proposals	All subdivision proposals shall show the locations of all special flood hazard and local floodplains within the subject property. Should local floodplains not already be identified by the city, the developer shall develop and identify these, including base flood elevations, with the subdivision proposal	Subdivision proposals to show special flood hazard areas	Technical/Regulatory	Statement of Purpose(1,2,7)
Subdivision Proposals	All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed so that they will not affect the existing water surface elevations of the base flood, the ultimate development 100-year or 25-year ultimate development flood (whichever is greater) in the area of special flood hazard.	Specific placement of public utilities	Regulatory	Statement of Purpose(2) Methods of reducing flood losses (5)

EXAMPLE ADOPTABLE TECHNICAL HIGHER STANDARDS

Technical Higher Standards

Adopt Atlas 14 rainfall rates (or latest available NOAA).

For future conditions adopt use of regionalized lag time adjustment based on watershed changes.

Adopt Federal Highway Administration use of HEC 14 for scour analysis.

Adopt National Engineering Handbook (NEH) Part 630 hydrology standards

Adopt permissible shear stress calculation and Tables from TxDOT Hydraulic Design Manual

Establish and require technical criteria for no adverse impacts for floodplain development permits.

Region 11 Guadalupe RFPG Chair Updates

Agenda Item 5

Texas Water Development Board Updates

Agenda Item 6

Agenda Item 7

Guadalupe Region 11 RFPG Sponsor – GBRA Updates

1. Contract Amendment No.2
2. Technical Memo No. 2
3. guadalupeRFPG.org updates
4. social media updates

Agenda Item 8

Update from Region 10 (Lower Colorado-Lavaca)
and Region 12 (San Antonio) Liaisons

Agenda Item 9

Consider Executive Committee's recommendation, discussion and consider taking action to fill the Flood Districts interest category position.

Region 11 Guadalupe RFPG

Member Nomination Form

Date:

Name & Email of person submitting this form (Nominator, may be the same as nominee):

Nominee Name:

Nominee Phone:

Nominee E-mail:

Nominee Mailing Address:

County in which the nominee resides:

Nominee Occupation:

Nomination for Interest Group (Check One)

Agricultural Counties Counties Electric Generating Utilities Environmental

Flood Districts Industries Municipalities Public River Authorities

Small Business Water Districts Water Utilities

Brief bio and summary of qualifications specific to interest group

General type of flood-related knowledge, experience, and approximately number of years of being involved in flood-related issues.

Please provide 2 references (Name, title/affiliation, phone number)

Please list any optional attachments included (Resume, CV, Resolutions, etc.)

EDWARD DOBBS II

251 Colake Drive · Victoria, Texas 77905
979-320-4100

Email · eddobbsii@gmail.com

Profit-minded and customer-centered, I believe that the path to revenue-goal attainment begins with providing customer service and quality equipment. Toward that end, I have been successful in solving an assortment of customer equipment needs in a timely manner.

EXPERIENCE

SEPTEMBER 1986 TO SEPTEMBER 1996

DISPATCHER, WEATHERFORD

Started out steaming and painting tools, moved to tearing down redressing and testing BOPs, manifolds, plug valves, and safety valves. Then got to start tearing down and redressing fishing tools. In 1992 started dispatching answering phones, laying out jobs, typing tickets and scheduling trucks for delivery.

SEPTEMBER 1996 TO NOVEMBER 2012

SR DIRECTOR RENTAL SERVICES US, KEY ENERGY SERVICES

Started as a Dispatcher in Kilgore, Texas then moved to Houston to take my 1st District Manager Job. After Houston I managed the following locations Alice, Victoria, and El Campo. In 2000 moved to Area Service Line Manager (Rental) including Jar Services over the Gulf Coast. In 2010 got moved to Corporate to take the role of Sr. Director Rental Services US and was a major player in getting Key into the Drill Pipe market as well as helping develop their Quality Processes and SOX requirements for the Rental Division.

DECEMBER 2012 TO PRESENT

PRODUCT LINE MANAGER RENTAL SERVICES US, RTS SERVICES /CERTUS ENERGY SOLUTIONS

Started as the CDC Operations Manager in El Campo, Texas purchasing rental equipment. Overseeing the placement in RTMS and stamping of asset numbers for tracking. Lined up trucking to deliver equipment to its district as well as overseeing that the transfers, delivery tickets, and invoices were done in a timely manner. Set up electronic and paper files for all material certs and COCs for the purchased equipment. As Certus expanded the CDC was closed and the support staff was moved to Houston. The clerical work was turned over to the districts. When Certus moved into a new line of business impact tools and fishing tools. I over saw the purchasing of equipment and setting up of the facilities. As HZT Certus's proprietary tubing connection matured I have been involved in the design, testing, manufacturing, process, and even have been field support on location. I work with the 2 locations to help them with any equipment they may need as well as equipment problems.

EDUCATION

MAY 1988



HIGH SCHOOL DIPLOMA, WESTWOOD HIGH SCHOOL

SKILLS

- Can read a P&L Statement
- Can Multitask
- Microsoft Excel and Word
- Computer Literate
- Procurement Strong
- Safety Minded
- Team Player

ACTIVITIES

When not working I enjoy BBQing with my wife, kids, grandkids, and our neighbors. I also enjoy hunting, fishing, and shooting.

Region 11 Guadalupe RFPG

Member Nomination Form

Date: February 22, 2022

Name & Email of person submitting this form (Nominator, may be the same as nominee):

Nominee Name: E. Douglas Sethness, Jr.
Nominee Phone: (361) 243-1473
Nominee E-mail: DSethness@Reagan.com
Nominee Mailing Address: P.O. Box 87, Cuero, TX 77954
County in which the nominee resides: DeWitt County

Nominee Occupation:

Retired. Currently President of the Board, DeWitt County Drainage District No. 1

Nomination for Interest Group (Check One)

- Agricultural Counties Counties Electric Generating Utilities Environmental
 Flood Districts Industries Municipalities Public River Authorities
 Small Business Water Districts Water Utilities

Brief bio and summary of qualifications specific to interest group

Cornell University Engineering Studies, Enlisted US Army, University of Texas Austin BS in Civil Engineering with Honors, University of Texas Austin MS in Civil Engineering. Design, Project/Program Management in responsible position experience including major dam design, flood modeling, flood protection, drainage, and water supply. 50 years as Professional Engineer.

General type of flood-related knowledge, experience, and approximately number of years of being involved in flood-related issues.

Managed and designed flood protection for Three Mile Island Nuclear Plant. Modeled flood at Forty Fort, Pennsylvania on Susquehanna River to determine weakness in existing levees and re-design the system to withstand 500 year flood. Virtually every project/program I worked on over 50 years had flood-related or drainage issues. Nominated for and received International Award from the American Society of Civil Engineers recognizing me for Best Pragmatic Engineering of 2010.

Please provide 2 references (Name, title/affiliation, phone number)

E. Dan Allen – Chief Engineer, Port of Long Beach (Retired). Phone (562) 221-7843
John Moguee – Senior Vice-President CH2MHill/ Jacobs Engineering. Phone (813) 760-2923

Please list any optional attachments included (Resume, CV, Resolutions, etc.)

Summary resume attached.

Brief Resume of E Douglas Sethness Jr.

Education

M.S., Civil Engineering, University of Texas at Austin, 1973

B.S., with Honors, Civil Engineering, University of Texas at Austin, 1971

Undergraduate studies, Cornell University, 1963 - 1966

Professional Registrations

Registered Professional Engineer: Washington, Pennsylvania, California, Louisiana, and Texas

Distinguishing Qualifications

- 15 Years experience in the planning, program/project management, and design of hydraulic structures and drainage including: flood studies using USACE modeling software, design of both riverine and lake cooling systems; studies of availability of water for development of energy in the Western US; and flood planning for critical infrastructure including power plants, ports, and refineries.
- More than 25 years of domestic and international experience in designing and managing capital improvement programs for marine facilities and ports, with a strong background in container terminal planning, design, construction, and security of critical infrastructure.
- Active experience in security infrastructure and emergency response planning.
- First President of the Coast, Oceans, Ports and Rivers Institute (COPRI) of the American Society of Civil Engineers (ASCE).
- Served as Chairman of the Ports and Harbors Committee (ASCE).
- An author of ASCE Manual 50 - Planning and Design Guidelines for Small Craft Harbors.
- Served as Vice-Chairman of the ASCE Committee on Critical Infrastructure.
- Expertise in managing all aspects of high-visibility port and marine design projects coupled with fiscal responsibility and co-development activities.
- Recipient of Kenneth M. Childs Jr. Practitioner's Award presented by the Coastal, Ocean, Ports, and Rivers Institute of the American Society of Civil Engineers, an international award presented to an engineer known for applying practical application of engineering to solve problems.

Work History

Mr. Sethness has been a member of the Board of Directors of the DeWitt County Drainage District No. 1 since 2017. He currently serves as President of the Board; a position he has held since 2018.

Mr. Sethness worked for CH2M HILL, Inc. from 1999 to his retirement in 2014 serving both as an officer of the company (Vice-President) and Senior Program Manager. In this period, he worked on port projects worldwide and was responsible for all aspects of planning, permitting, design, construction, and operation.

Mr. Sethness served as Assistant Chief Harbor Engineer for the Port of Long Beach, California from 1995 to 1999.

Mr. Sethness was Senior Program Manager for the Port of Seattle, Washington from 1991 to 1995.

Mr. Sethness was President of Waveguard International, based in Austin, Texas, from 1987 to 1991.

Mr. Sethness was President of Moore and Sethness Company, Inc. (predecessor to Waveguard) in Austin, Texas from 1982 to 1987. He managed consulting activities in civil engineering including hydrology, hydraulics, commercial/residential construction, coastal and marine design, and oversight of environmental and hydrological services for site investigations.

Mr. Sethness was an Associate with Camp Dresser & McKee's Environmental Sciences Division in Austin, Texas, from 1977 to 1982. As Regional Manager, he was responsible for all activities of the Environmental Sciences Division within Texas, New Mexico, Oklahoma, Arkansas, and Louisiana.

Mr. Sethness was the first Project Director and Group Leader in the Natural Resource Analysis Department at Radian Corporation in Austin, Texas, from 1974 to 1977. He managed environmental assessment and hydrologic programs.

Mr. Sethness was a Project Engineer with Gilbert Associates in Reading, Pennsylvania from 1972 to 1974. He was responsible for all aspects of cooling water hydraulics and site hydrology on two nuclear power stations. These projects included the design of major dams, hydrologic study, and modeling.

County
of DeWitt



307 N. Gonzales St.
Cuero, Texas 77954

March 14, 2022

Region 11 Guadalupe Regional Flood Planning Group (RFPG)
933 E. Court Street
Seguin, TX 78155
ATTN: Lauren Willis

Subject: Support of Nomination
Doug Sethness
RFPG Voting Membership
Flood District Category

Dear Lauren,

We are writing you to recommend Doug Sethness, President of the Board of Directors of the DeWitt County Drainage District No. 1, as the representative of Flood Districts for the Guadalupe Regional Flood Planning Group in place of former DCDD1 General Manager, Beth Parker. As you are aware, Doug has been representing Flood Districts as an alternate for the last year and a half and has demonstrated his expertise and sincere interest in the RFPG. He has over 40 years of experience as an engineer designing and developing dams, levees, and flood protection for both commercial and residential facilities, from master planning through the construction phase. His engineering knowledge and leadership abilities have been invaluable to our Drainage District, and we feel would be invaluable to the RFPG as well.

Thank you for your consideration of our support for Doug Sethness.

For the DeWitt County Commissioners Court

A handwritten signature in blue ink that reads "Daryl L. Fowler".

Daryl L. Fowler
DeWitt County Judge



INSURANCE

212 N. Esplanade • P.O. Box 691 • Cuero, Texas 77954 • 361.277.9800
www.rncins.com



March 9, 2022

Region 11 – Guadalupe Regional Flood Planning Group
933 E. Court Street
Seguin, TX 78155
Attn: Doug Miller

Subject: Support of Nomination
Doug Sethness
GRFPG Voting Membership
Flood District Category

Dear Mr. Miller,

I would like to recommend Doug Sethness, President of the Board of Directors of the DeWitt County Drainage District No. 1, as the representative of Flood Districts for the Guadalupe Regional Flood Planning Group in place of former DCDD1 General Manager, Beth Parker. Doug has been representing Flood Districts as an alternate for the last 18 months or so. He has demonstrated expertise and interest in the Guadalupe Regional Flood Planning Group. Doug has over 40 years of engineering design experience in developing dams, levees, and flood protection. Throughout that time, he has been involved in master planning and construction for commercial and residential facilities. This experience and engineering knowledge has been invaluable to our DeWitt County Drainage District No. 1. Doug would be a valued asset to Flood Districts for the Guadalupe Regional Flood Planning Group.

I personally interact with Doug on a weekly basis through Rotary Club. Doug Sethness is always cordial, knowledgeable, and caring of others around him. He is a Paul Harris Fellow – which is a high honor within Rotary International.

Thank you for your consideration of my support for Doug Sethness.

Sincerely

Will Carbonara

Cc – Lauren Willis

Agenda Item 10

Discussion regarding Region 11 RFPG
Technical Consultants work and schedule.



Region 11 Guadalupe

Regional Flood Planning Group Meeting

March 30, 2022

Item 10



Agenda

- Stakeholder and Public Outreach Update
- Other things we are tracking/Interesting Items
- Task Updates and Discussion
- Region 11 Dashboard
- Look ahead

Stakeholder and Public Outreach Update

Guadalupe Regional Flood Planning Group (RFPG) - Public Comment Tracking Matrix

For RFPG Public Meeting March 30, 2022

Comments received February 2, 2022 – March 22, 2022

Comments Received Via comments@guadaluperfpg.org or via lwillis@gbra.org

Date Comment Received	Name/Affiliation of Commenter	Comment/Question	Respondent and Response Date
3/16/22	JP Fancher Private Citizen	<p>SEE ATTACHED ARTICLE IN BACKUP MATERIALS</p> <p>From: jpfancher@earthlink.net <jpfancher@earthlink.net> Sent: Wednesday, March 16, 2022 10:59 AM To: Sarah Weber <sweber@doucetengineers.com> Subject: RE: Guadalupe Regional Flood Planning Group--Requesting Your Feedback</p> <p>Howdy! Today's SA Express-News has a lead article on conservation efforts around the region of Camp Bullis that is important to this group. The boundaries discussed border on the Guadalupe region, and the efforts to encourage rainwater retention by berms and other means throughout the region are very important. Please pass on to all involved! The article starts on Page 1. Thanks!</p> <p><i>JP Fancher paradox out</i></p>	Respondent: Doucet Engineers (Sarah) Response Date: 3/16/22
3/6/22	JP Fancher Private Citizen	<p>From: jpfancher@earthlink.net <jpfancher@earthlink.net> Sent: Sunday, March 6, 2022 9:35 AM To: Sarah Weber <sweber@doucetengineers.com> Subject: RE: Guadalupe Regional Flood Planning Group--Requesting Your Feedback</p> <p>Howdy! I do not represent a governmental, public, or business entity that can give specific feedback to the planning group document. However, my views as a private citizen who lives on a water way reflects public concerns in the planning process. A key concept that is on the dance floor is simply that historic floods are the result of heavy rains in unpopulated areas of the Guadalupe regions, largely open ranch/farming land that has never been included in the planning process. Water runs off into the natural drainage conduits that are thousands of years old. There is now rampant development, especially in these natural drainage plains. Getting a</p>	Respondent: Doucet Engineers (Sarah) Response Date: 3/7/22

Stakeholder and Public Outreach Update

Guadalupe Regional Flood Planning Group (RFPG) - Public Comment Tracking Matrix

For RFPG Public Meeting March 30, 2022

Comments received February 2, 2022 – March 22, 2022

Comments Received Via comments@guadaluperfpg.org or via willis@gbra.org

		<p>piece of the hill country is a goal of real estate development in this region, as fast as possible before regulations can shift the burden of responsible planning. Rainfall that lands in and around Blanco and Johnson City flows into the river basins and drops ~1000 ft of elevation as it rushes through the exploding communities along the I-35 corridor. Most of the actions planned are aimed at protecting these communities, not preventing the spread of flood risk.</p> <p>We have a double entendre of water management: #1 not enough potable water due to over pumping of our aquifers and periodic drought and #2 Poor to non-existent flood planning, especially in the rural areas and overdeveloped basins. Somehow these problems can be married to some common solutions; slowing and retaining rainwater to mitigate flooding and increase availability of potable water at the same time. This will be a lot less expensive than massive ditch and concrete projects and buyouts. Unfortunately, I see none of these concepts in the planning document.</p> <p>I attended several meetings last fall, and I will attempt to attend meetings in the future to monitor progress in this planning group. So far I simply have seen very little substantial progress in public. I hope there is more to come!</p> <p><i>JP Fancher, DDS, PhD 210-896-8575 345 Buie Lane Guadalupe County, TX 78655 paradox out</i></p>	
3/6/22	Lisa Arceneaux EA Environmental Consulting	<p>From: Lisa Arceneaux <lisa@eaenvironmental.net> Sent: Sunday, March 6, 2022 11:34 AM To: Sarah Weber <sweber@doucetengineers.com> Cc: 'Moyer, Laurie' <lmoyer@sanmarcostx.gov>; 'Sarah Simpson' <ssimpson@color-space.com>; 'Navarro, Aspen' <aspennavarro@txstate.edu> Subject: RE: Guadalupe Regional Flood Planning Group Requesting Your Feedback</p> <p>Hi Sarah,</p>	Respondent: Doucet Engineers (Sarah) Response Date: 3/7/22

Stakeholder and Public Outreach Update

Guadalupe Regional Flood Planning Group (RFPG) - Public Comment Tracking Matrix

For RFPG Public Meeting March 30, 2022

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		<p>It was great talking to you last week about your understanding of the list being compiled for the Guadalupe Regional Flood Planning Group. I mentioned an initiative here in San Marcos that is vetting through a pilot scale test that is in process to build in 2023. The concept is to activate San Marcos Alleys using permeable pavers as a baseline to improve storage of rain events that cause localized flooding (24-hour 2-5 year return frequency). Sarah Simpson, Aspen Navarro and myself were the primary contributors to the voluntarily prepared initiative (they are cc'ed here).</p> <p>Kissing Alley (https://downtownsmtx.squarespace.com/kissing-alley) in San Marcos is the pilot scale project and the larger vision is called The San Marcos Green Alley Initiative (https://www.color-space.com/the-san-marcos-green-alley-initiative). If fully implemented the alley network with permeable pavers could capture, slow down, clean and slowly release up to 500,000 gallons of rainfall and runoff each rain event. By using stormwater mitigation funding, the downtown area could realize economic vitality, and improvements to pedestrian mobility all while managing/mitigating localized flooding. A win-win project that would be a good example for the TWDB to support and others communities to consider.</p> <p>It may be too soon to add this initiative, but if you need projects, it could be perfect timing. The city of course will want to chime in to say if they want it include now or not. I'm including Laurie Moyer, P.E. on this e-mail to comment, and for my part, I'm just providing the link (above). I would love to meet up with you when you get the Doucet office set up on Corporate Drive and we can walk through Kissing Alley and see the vision of the initiative together. Plus answer questions.</p> <p>Thank you!</p> <p>Lisa Arceneaux, P.E., CISEC, CPESC 512-644-1927 (cell)</p>	
2/28/22	Sydney Beckner Hill Country Alliance	<p>SEE ATTACHED LETTER IN BACKUP MATERIALS</p> <p>From: Sydney Beckner <Sydney@hillcountryalliance.org> Sent: Monday, February 28, 2022 1:45 PM To: Lauren Willis <willis@gbra.org></p>	Respondent: GBRA (Lauren) Response Date: 2/28/22

Stakeholder and Public Outreach Update

Guadalupe Regional Flood Planning Group (RFPG) - Public Comment Tracking Matrix

For RFPG Public Meeting March 30, 2022

Comments received February 2, 2022 – March 22, 2022

Comments Received Via comments@guadaluperfpg.org or via willis@gbra.org

		<p>Cc: Annalisa Peace <annalisa@aquiferalliance.org>; Daniel Oppenheimer <Daniel@hillcountryalliance.org>; suzanne.scott@TNC.ORG; manager@blancogw.org; lon.shell@co.hays.tx.us Subject: RFPG 11 Comments</p> <p>Hi Lauren,</p> <p>You'll find attached the Hill Country Alliance's comments to the Regional Flood Planning Group 11. We really appreciate the opportunity to provide comments and the work this group does to create a comprehensive flood plan for the Guadalupe River Basin planning area. I'm happy to answer any questions you may have.</p> <p>Gratefully, Sydney</p> <p>Sydney Beckner Water Program Manager Hill Country Alliance P.O. Box 151675 Austin, TX 78715 (cell) 903-238-3179 sydney@hillcountryalliance.org she/her</p> 	
2/8/22 to 2/11/22	Voting Members, Non-Voting Members and Public	<p>The following individuals provided written comments to the technical consultant on the draft technical memorandum #2:</p> <p><u>Voting Members</u></p> <ul style="list-style-type: none"> 2/11/22 John Espinoza /Joe Pantalion – City of San Marcos 2/8/22 Brian Perkins – GBRA <p><u>Non-Voting Member</u></p> <ul style="list-style-type: none"> None <p><u>Public</u></p> <ul style="list-style-type: none"> None 	<p>Respondent: FNI (Jay) Response Dates: 2/2/22 to 2/14/22</p>

education
conservation
cooperation



Guadalupe Regional Flood Planning Group
c/o Guadalupe Basin River Authority
933 E. Court St.
Seguin, Texas 78155

February 28, 2022

Dear Regional Flood Planning Group 11,

Thank you for your ongoing work to create a comprehensive flood plan for the Guadalupe River Basin planning area. I am writing to encourage the inclusion of nature-based infrastructure solutions to flooding as you look for flood mitigation interventions that bring about multiple benefits for the lands and communities within your planning area.

Nature-based solutions, or green infrastructure, offers an integrated approach to stormwater management that uses natural features designed to mimic or preserve natural drainage processes. Such techniques include the use of plant or soil systems and permeable surfaces to capture rainfall where it falls thereby reducing flows to sewer systems and surface waters. These techniques can be applied to individual buildings or sites; however, they are most effective at flood abatement if distributed and integrated across a community or region.

Our organization as part of the Texas Living Waters Project released a guide to *Nature-Based Solutions to Flooding in the Hill Country* (<https://tinyurl.com/NBSflooding>), which outlines some of the nature-based and green infrastructure strategies available as well as state and federal funding sources available to assist communities in implementing these strategies. If there is an opportunity to reflect the importance of using nature-based infrastructure to mitigate flooding risks in the Planning Group's shared goals, we would welcome this addendum.

We appreciate your earnest and thoughtful efforts to protect the people and places that define this region. Please let me know if you have any questions. I can be reached by cell phone at 903-238-3179 or by email at sydney@hillcountryalliance.org.

Respectfully,

A handwritten signature in black ink that reads "Sydney Beckner".

Sydney Beckner
Water Program Manager
Hill Country Alliance

Bullis-area lands may see more protection

By Elena Bruess

STAFF WRITER

On the west side of Camp Bullis, at the edge of the Dominion neighborhood, Rustin Tabor pulls his truck to the side of a winding road and walks a few feet into the wooded area that lines it.

Farther in, stretched across the dirt, is an entrance to a cave – a karst that leads deep under the forest to the Edwards Aquifer. A grate has been installed on the opening to prevent anyone from climbing down into it.

The cave, called Sharon Springs, is one of 112 on Camp Bullis, a military

training reservation on the Northwest Side. There are 1,474 karst features throughout Camp Bullis, ranging from small cracks and crevices to slits in the earth, that deposit water into the recharge zone of the Edwards Aquifer.

“This one doesn’t seem springy right now,” said Tabor, natural resources manager for Joint Base San Antonio. “But if you come here during wet conditions, the water is actually pushing out of the ground.”

Safeguarding such caves is among many conservation efforts at Camp Bullis and its neighboring lands – nearly 1 million acres – that

stand to get a huge boost from the area’s recent inclusion in a federal initiative aimed at protecting defense facilities from land uses that are incompatible with their military missions.

Under the initiative, called the Sentinel Landscape Partnership, such areas can seek to be designated as sentinel landscapes, which can provide priority standing to tap certain sources of public and private funding. Camp Bullis received the designation this month, putting it in line for financing opportunities to strengthen military readiness, promote natural re-



Daniel Oppenheimer, land manager for the Hill Country Alliance, looks into a cave at Camp Bullis that helps funnel water into the Edwards Aquifer recharge zone.

Robin Jerstad / Contributor

CONSERVE

From page A1

source conservation and increase agricultural productivity.

The Sentinel Landscape Partnership was established in 2013 by the Agriculture, Defense and Interior department. The partnership seeks to connect landowners with government assistance programs to fund land protection and restoration and to implement sustainable land management practices. The aim is that such practices can yield economic and ecological benefits while also protecting defense facilities from development that can hamper military activities, such as training and testing.

The Camp Bullis Sentinel Landscape is the first to receive this recognition in Texas and one of just a few in the United States. Nearly 40 local organizations have joined as partners, including the Hill Country Alliance, the Trinity Glenrose Groundwater Conservation District, the Edwards Aquifer Authority, the Texas A&M Natural Resources Institute and the Alamo Area Council of Governments. The sentinel landscape will encompass most of Kendall and Comal counties; parts of Bexar, Medina and Bandera counties; and small sections of Kerr and Blanco counties.

The Defense Department’s Readiness and Environmental Protection Integration Program, known as REPI, is also a major partner for the sentinel landscape by limiting development and land use conversion that could restrict military training and testing. Three segments in the entire area are designated opportunity spots for REPI.

“Agricultural productivity, conservation and military readiness are all tied together in terms of our relationship to the land,” said Daniel Oppenheimer, land program manager for the Hill Country Alliance. “That’s really what this partnership is about, bringing partners together and starting to understand where and how we can work together to bring new technical and financial resources that align with all the ground needs.”

Stemming lights and floods

Thousands of military person-

nel train each year on the nearly 28,000 acres at Camp Bullis, part of Joint Base San Antonio. The base has 266 mission partners, and about 2,000 people train there every day.

Most of those are training as military medics. Every enlisted medical person in the U.S. military trains at JBSA-Fort Sam Houston, said Michael Waldrop, the installation support director at Camp Bullis. And they all undergo field components of their training in the natural areas on Camp Bullis.

“In a war zone, you’re usually out in areas like this nature,” Waldrop said. “We want it to be as realistic as possible, so we can’t have any urban elements. They do their urban training elsewhere.”

Development near Camp Bullis can lead to light pollution, loss of agricultural lands and flooding. Outdoor lighting around the northwestern area of San Antonio, from new subdivisions or traffic, can disrupt the natural atmosphere for training. The area south of Camp Bullis is already too heavily illuminated, but the central portion of the camp to the north is still suitable for night training.

But there is concern that lighting is increasing to the north, which is one of the fastest-growing areas in Texas, and not just among the military. Light pollution can also disrupt natural patterns for wildlife, such as bird migration; increase carbon dioxide in the atmosphere; and obscure the stars.

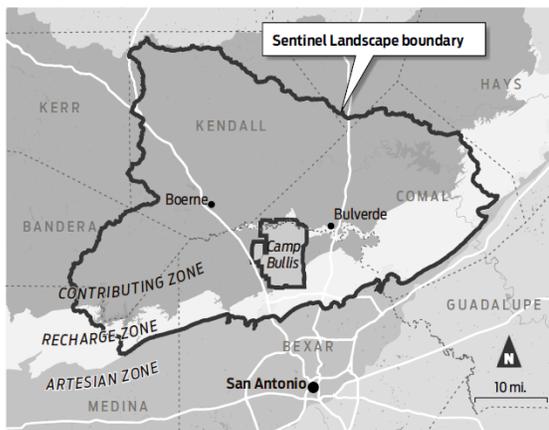
With this new designation, partners can work with developers to preserve dark night skies for military training, birds, natural resources and public health, Oppenheimer said. One solution is to provide funding for landowners and developers to focus their floodlights downward in their yards instead of reaching areas that don’t need to be illuminated.

Another issue the Sentinel Landscape Partnership can tackle is flooding in Camp Bullis, 30 percent of which lies in a flood plain, and the surrounding areas.

The Texas Hill Country is known as flash flood alley because of its shallow soils and the steady moisture and humidity that comes off the Gulf of Mexico, making the area vulnerable to massive dry spells and drought followed by cat-

Camp Bullis Sentinel Landscape

Nearly 1 million acres – including Camp Bullis and portions of seven counties – were recently designated as a Sentinel Landscape, part of a federal initiative aimed at preserving land while protecting Defense Department facilities from land uses that are incompatible with their military missions.



Monte Bach / Staff artist

astrophic floods.

At Camp Bullis, flash flooding has washed trucks away, covered roads and fields, and even killed a handful of people who got stuck in the floodwaters.

One solution involves speaking with landowners and developers about their own goals and values, Oppenheimer said.

“We’re not coming in and telling people what to do,” he said. “We talk about different tools and strategies to get them aligned with their goals and their interests. They don’t want to lose all their soil. They don’t want to be susceptible to drought and flood. Then based on that, we discuss ways they can retain more soil moisture, reduce erosion and enhance grass production on their property.”

One flood prevention technique is building berms to slow water and enable it to be absorbed into the soil, a practice that is especially helpful during heavy rain. A berm is a raised barrier separating areas, which can be made from brush and tree limbs or a grassy strip. With funding through the sentinel partnership, landowners could receive resources to build such structures or hire contractors to help them prepare the land for flooding.

Around Camp Bullis, berms are around the entire area for flooding, some made with brush and others with dirt and grass. In some cases, the berms serve multiple purposes – as bullet catchers for military range practice along with flood prevention.

“It’s not just us,” Waldrop said. “It’s everyone.”

Water as a joint mission

Tabor’s work at Camp Bullis includes protecting the Edwards Aquifer recharge zone’s caves and karsts, along with closely monitoring wildlife on the property, especially creatures that depend on the property for survival.

Camp Bullis provides habitat for the endangered golden-cheeked warbler and aquifer-dependent species, such as the blind salamander, San Marcos salamander and Comal Springs riffle beetle. Three river systems – the Medina, the San Antonio and the Cibolo – run through the Camp Bullis Sentinel Landscape’s massive area.

Of the 28,000 acres at Camp Bullis, 4,000 are within the recharge zone. It is also at the convergence of the Trinity Aquifer and karst features along Cibolo Creek. Two aquifers – the Trinity and Edwards – meet under Camp Bullis and influence each other

through the flow of groundwater.

All military personnel and others at Camp Bullis depend on water from the Trinity Aquifer and its relationship with the Edwards Aquifer. Compared to the Edwards, the Trinity recharges slowly and needs more time to refresh.

At the Trinity Glenrose Groundwater Conservation District, Assistant General Manager Amanda Maloukis said a large part of the Sentinel Landscape Partnership’s mission is protecting, preserving and conserving groundwater resources.

“We can bring in educational pieces to the community, to those ranches and landowners, that really helps enhance their own personal conservation efforts,” she said. “We have rain barrel workshops, which can help people put less stress on the aquifer. We have these high-precipitation events, flooding events, and we’re catching that extra runoff in barrels, which can be used.”

Some of the funding could also be used for further research on groundwater dynamics. By better understanding how the aquifers work together and contribute to the greater ecosystem, organizations and agencies can better protect the water for future generations.

Development around Camp Bullis can bring more pressure to the area in terms of pollution, spills and runoff into both aquifers. Groundwater, Maloukis said, is not just for communities around Camp Bullis, but also for the military within the conservation district. It’s important for everyone involved to keep it clean, and with the new sentinel landscape designation, the hope is they’re heading in the right direction.

“All of this water is tied together in terms of our relationship to the land,” Oppenheimer said. “That’s what this is all about, bringing everyone together to see how all these pieces fit into a really complex puzzle.”

Elena Bruess writes for the Express-News through Report for America, a national service program that places journalists in local newsrooms. ReportforAmerica.org. elena.bruess@express-news.net



Things we are tracking

- General Land Office Western Regions
- Caldwell County Flood Protection Plan
- New Braunfels Drainage Master Plan Update

- Items of interest:
 - American Flood Coalition
 - Texas Flood Information Clearinghouse

Technical Memorandum No. 2

2023 REGIONAL FLOOD PLAN
TECHNICAL MEMORANDUM 02

REGION 11
GUADALUPE REGIONAL FLOOD
PLANNING GROUP

February 28, 2022

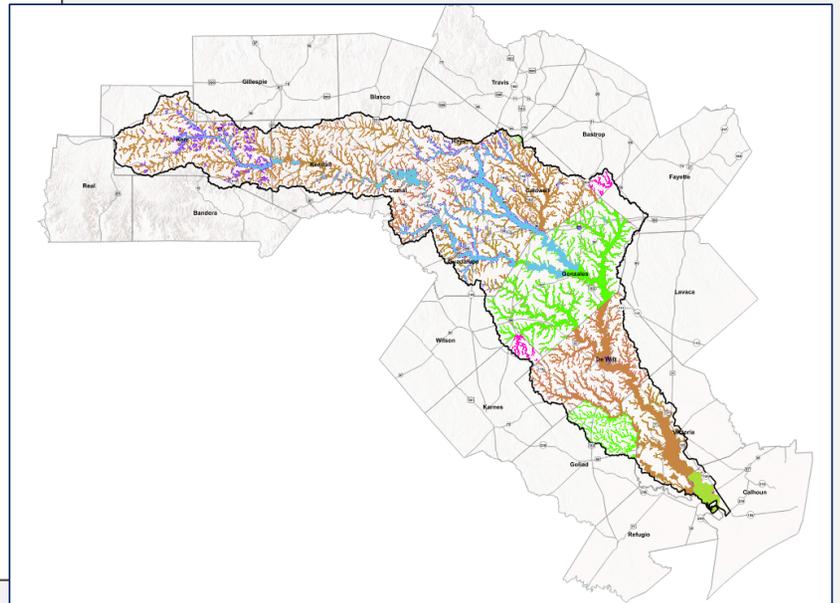
- Submitted March 4, 2022
- Administratively Complete March 21, 2022



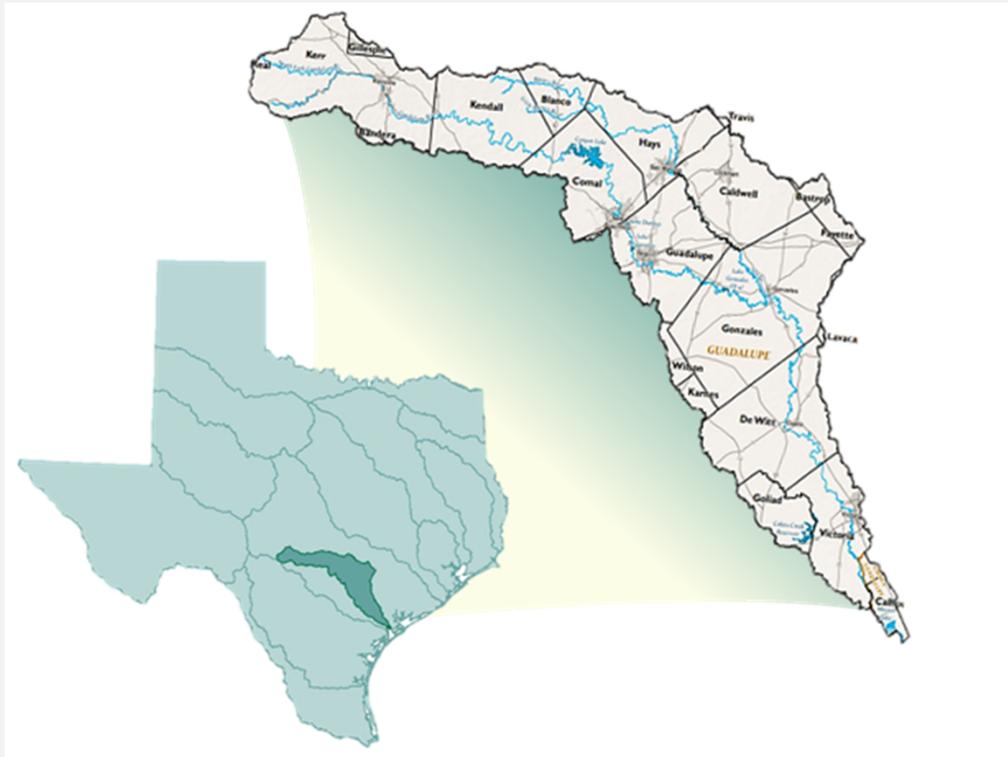
Texas Water Development Board
Regional Flood Planning
**Technical Memorandum (March 7 Deadline)
Administrative Completeness Checklist**

The Technical Memorandums reflect draft materials and interim RFGP decisions as of the date of submission and do not constitute final decisions, complete information, or data etc. These submissions reflect a set of working information that is intended to demonstrate significant progress in developing each regional flood plan but that will likely change prior to final adoption and, in some cases, will be only partially complete at the time of this submission.

Regional Flood Planning Group Name:



Chapter 1 Overview – Planning Area Description



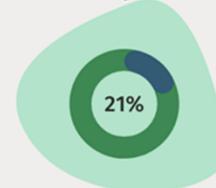
618,874 People

2020 Population of the region



22 Counties

22 counties, or portions of them, make up the basin



38 Major Disaster Declarations

38 major and 8 emergency declarations between 1953 and 2020, with 21% having occurred since 2000.



42 Flood Events

42 major flood events have occurred since 1913 with significant losses to life and property

FEMA Flood Claims

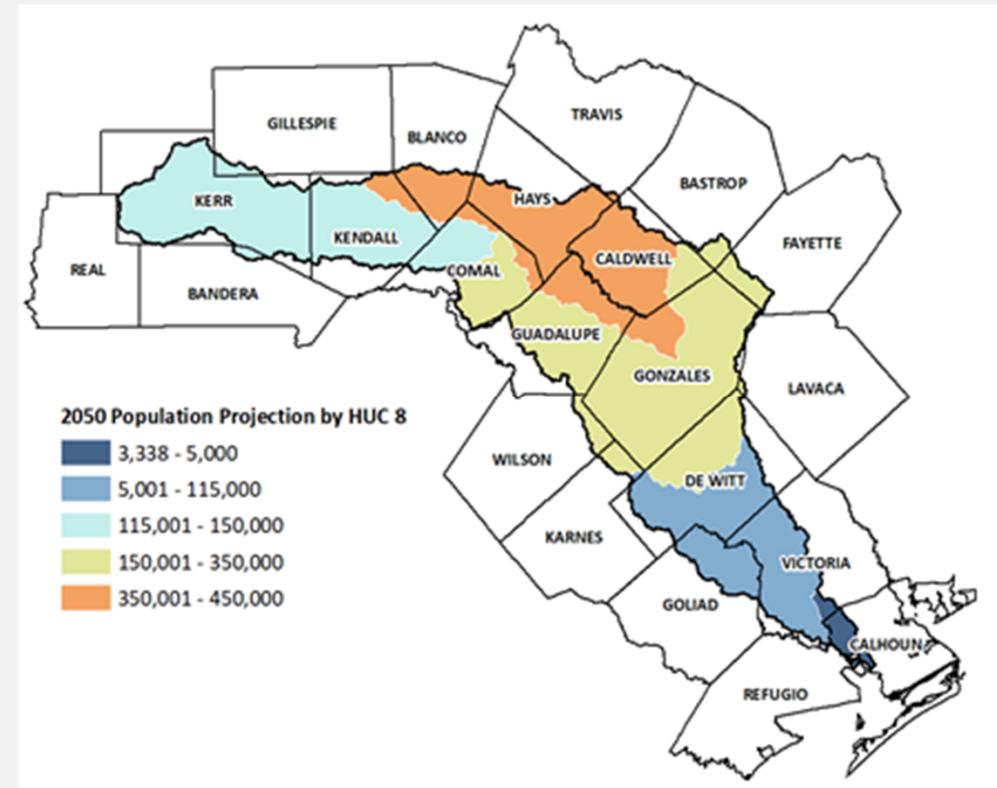
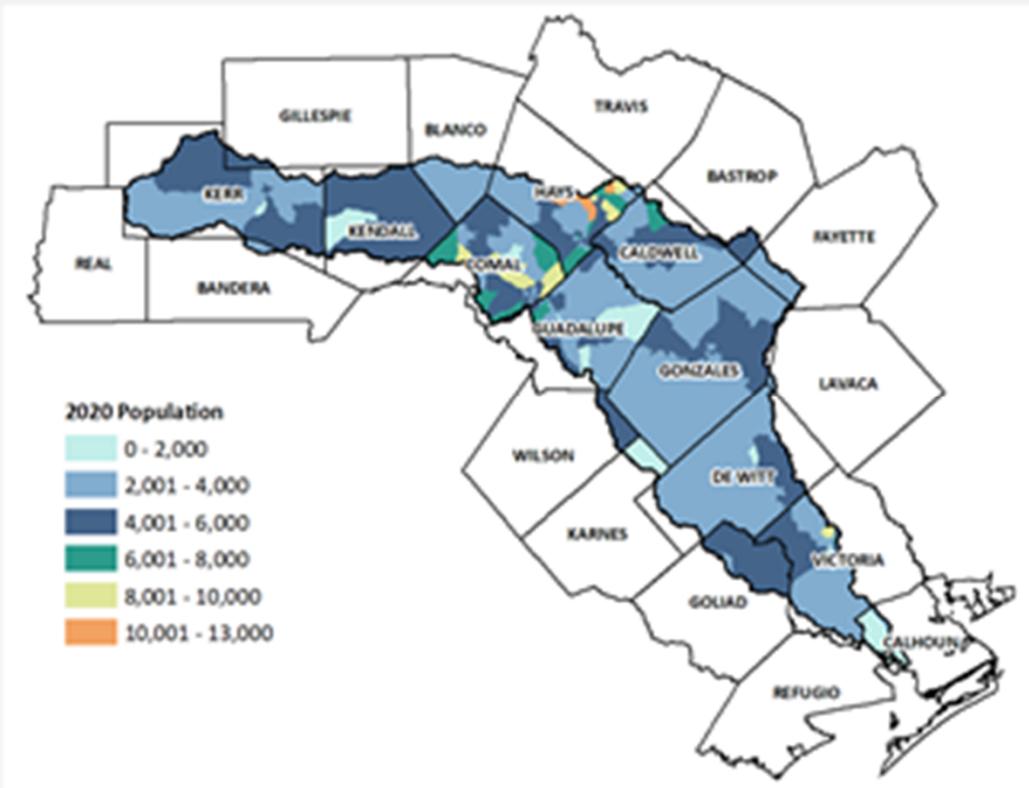
(1975-Present)

6248 Flood Claims

\$261.7M Flood Claims Paid

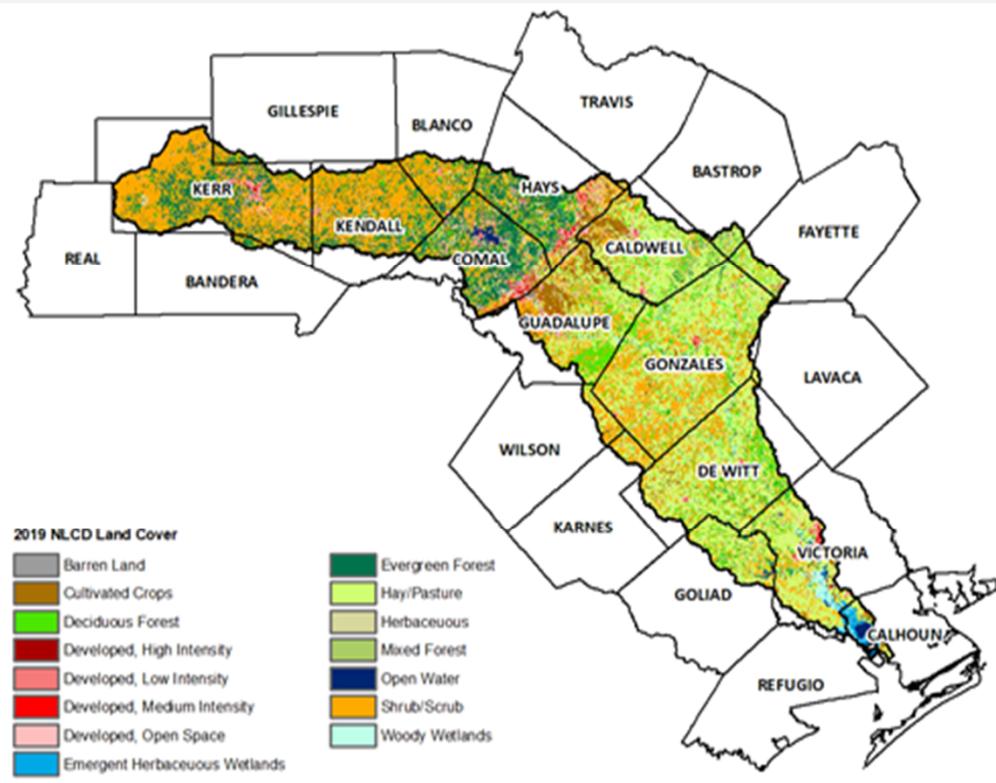
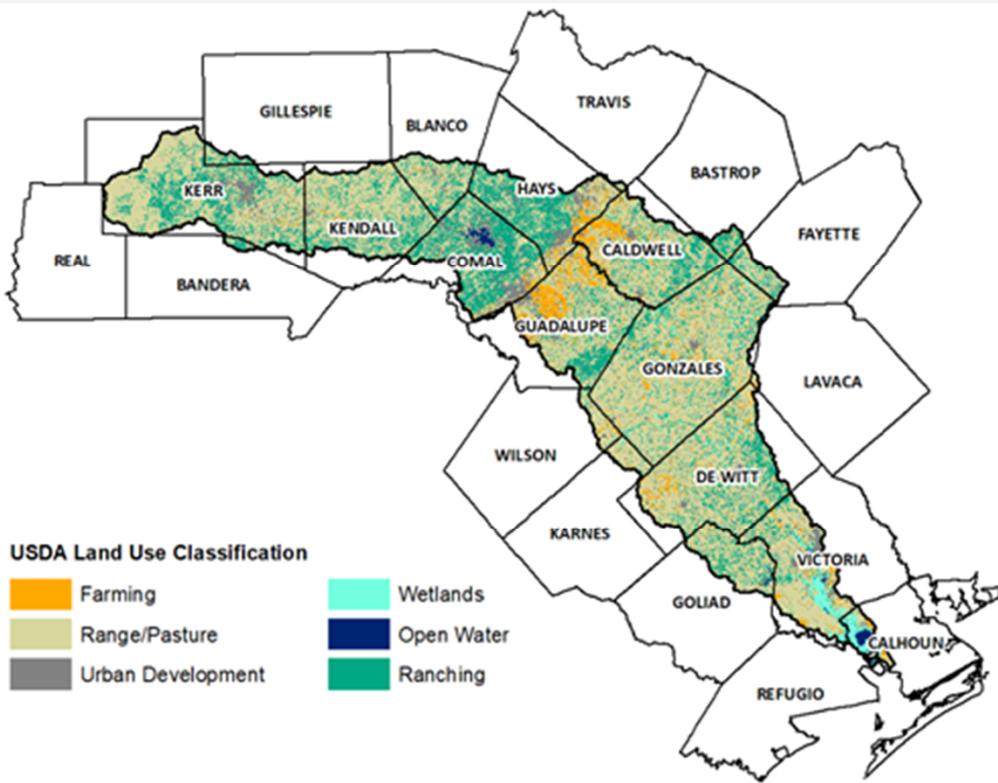
Chapter 1 Overview

Population



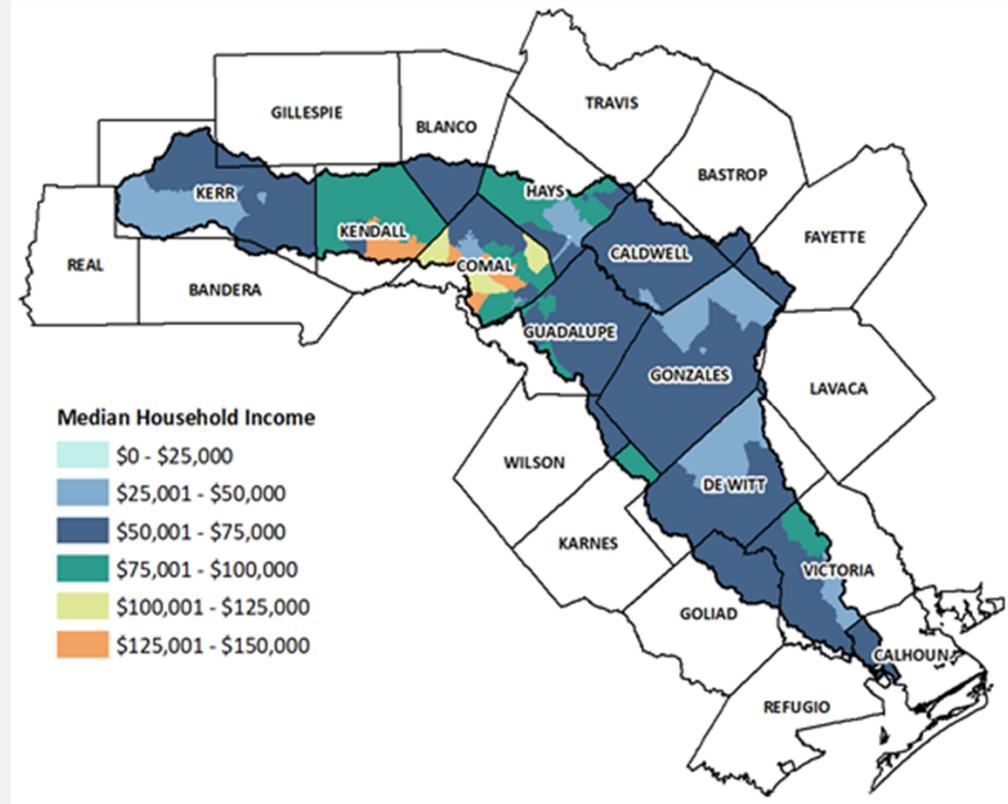
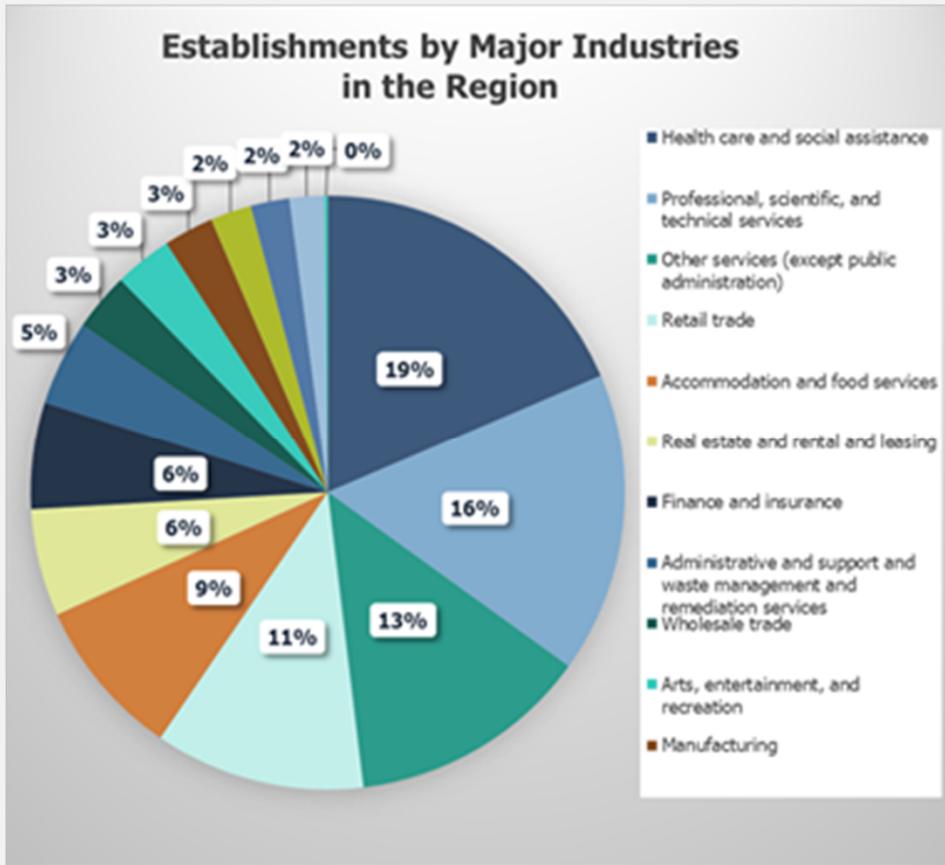
Chapter 1 Overview

Land Cover/Land Use



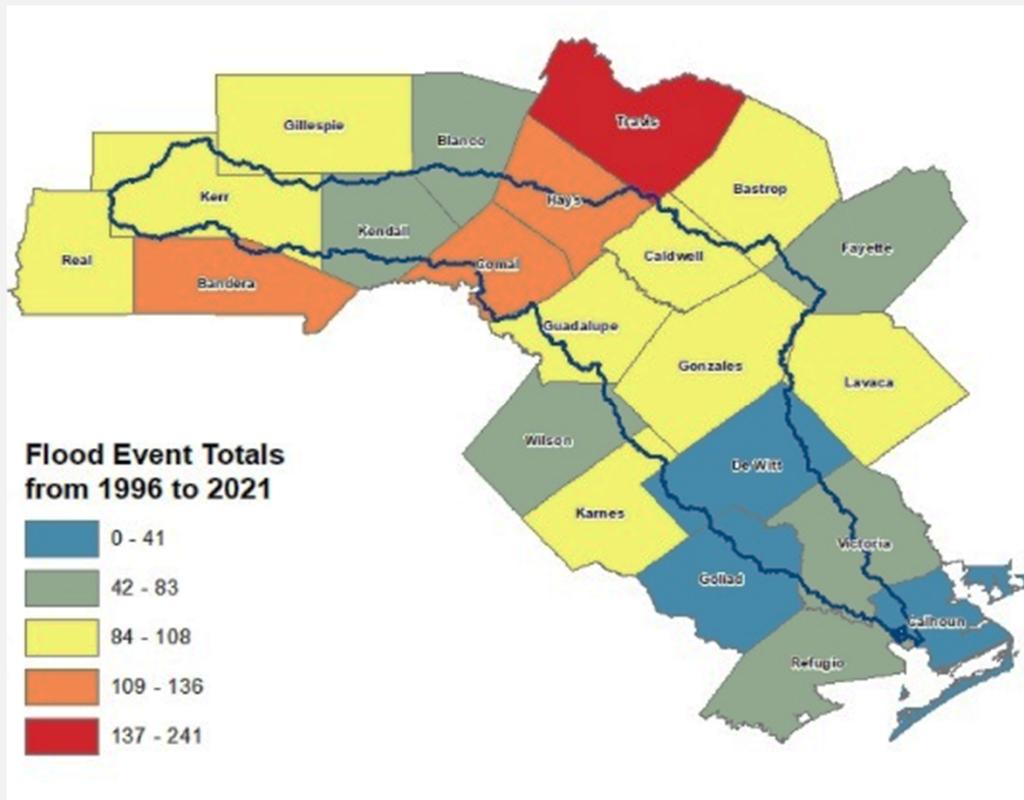
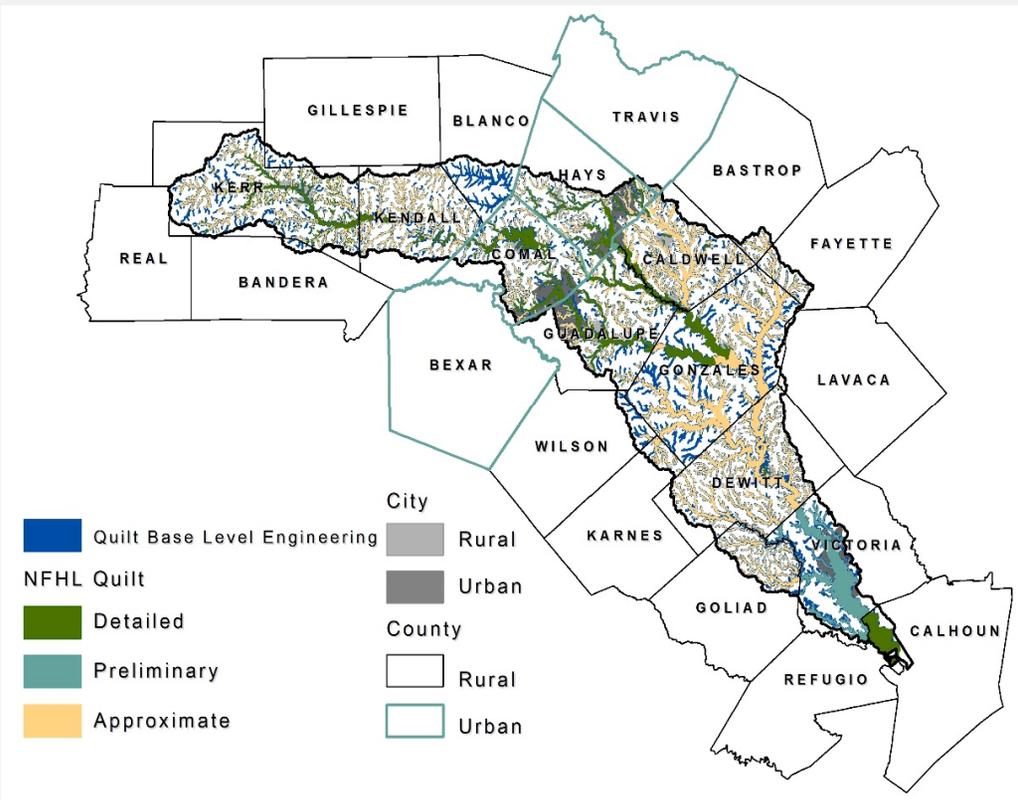
Chapter 1 Overview

Economics



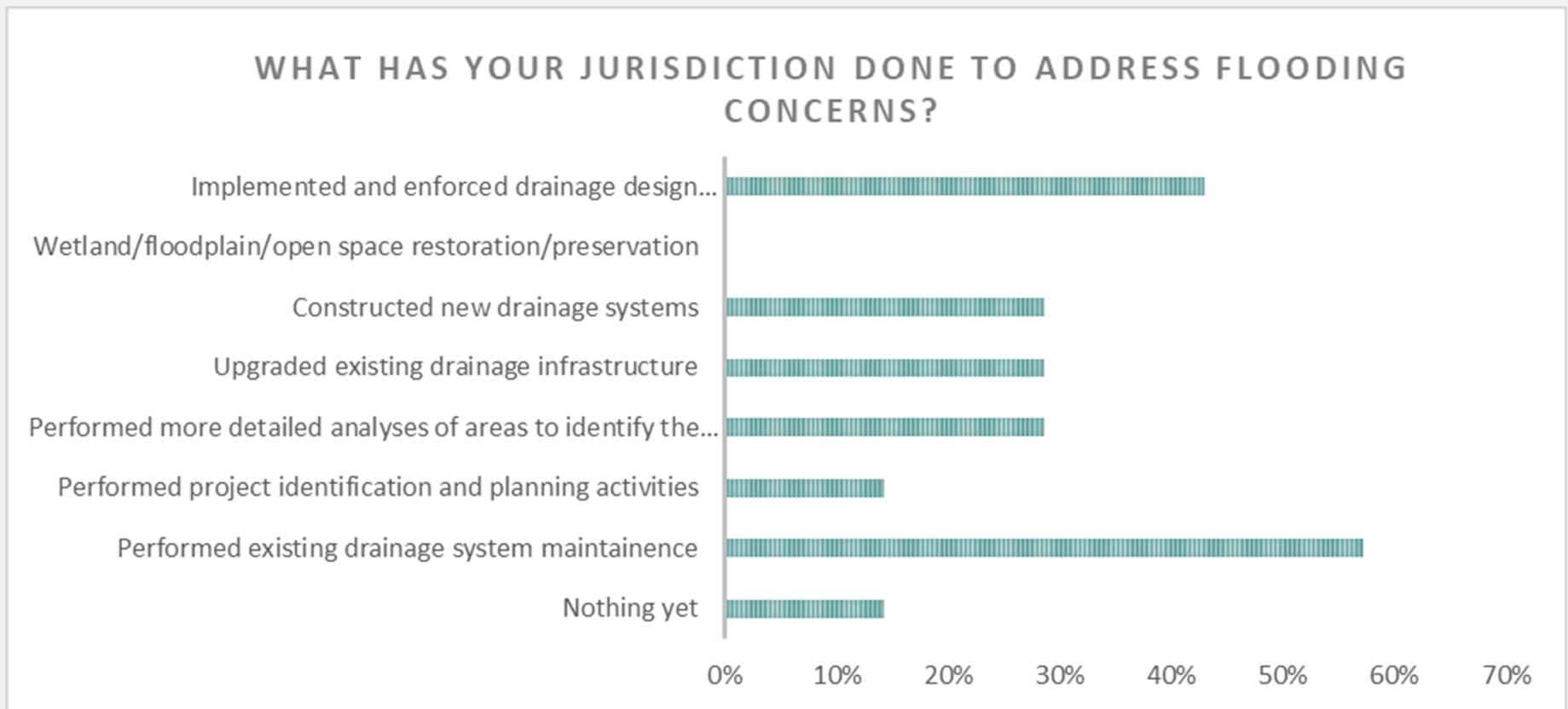
Chapter 1 Overview

Flooding Character/History



Chapter 1 Overview

Flood Management Authority

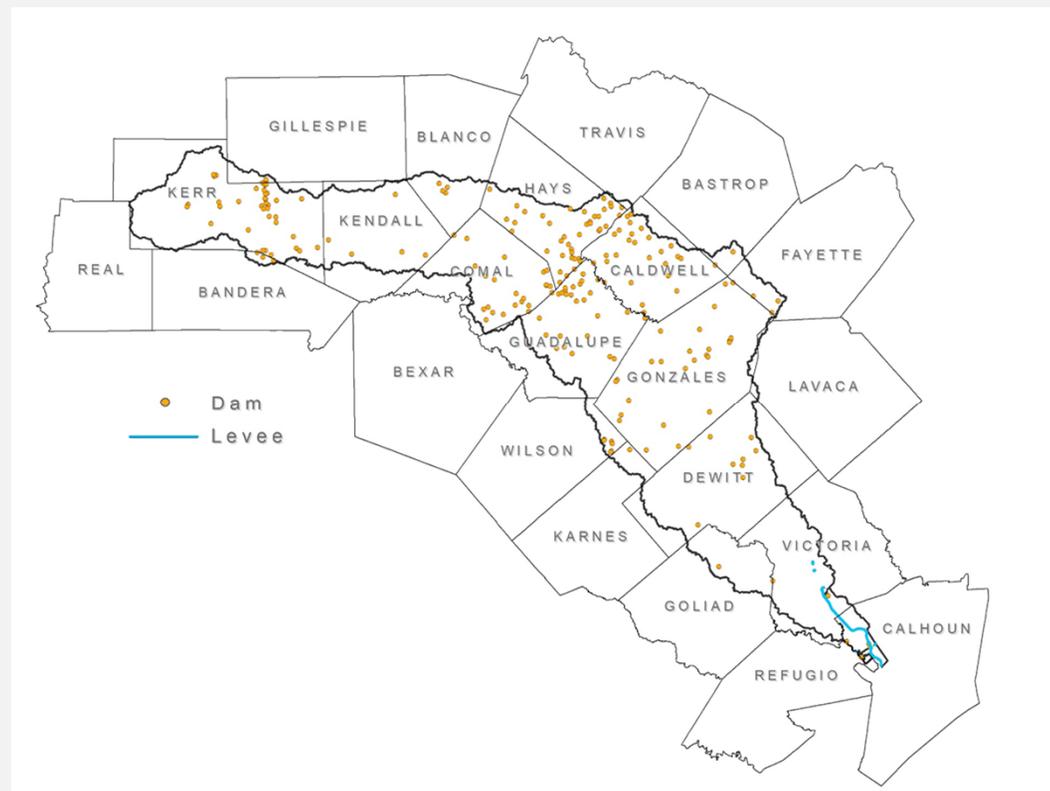


Chapter 1 Overview

Flood Infrastructure

Features	Region Counts
rivers, tributaries	6863
lakes, reservoirs	6
parks, preserves, natural areas	10
wetlands and marshes	5315
karst features, sinkholes	TBD
barriers, gates	1

Features	Region Counts
levees	10
dams	213
pond structures ≥ 1 acre	358
local stormwater systems, including tunnels, canals	4
low water crossing	815

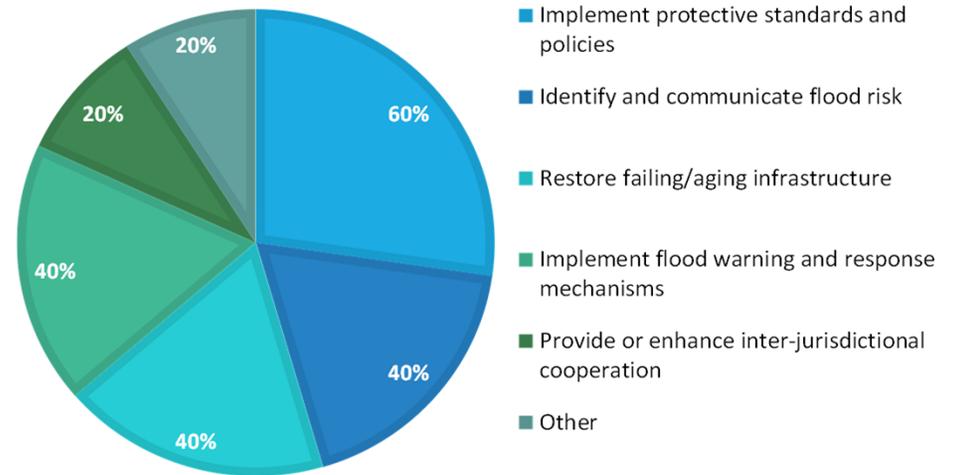


Chapter 1 Overview

Flood Mitigation

Type of Projects	Count
Flood Insurance (Participation in NFIP)	8
Flood Awareness Outreach and/or Education	7
Flood Readiness & Resilience/ Response	5
Roadway & Crossing Improvement/ Bridges/ Culverts	7
Flood Warning Systems, Stream/Rain Gauges	6
Improve Drainage Systems	5
Remove Debris	4
Flood Proof Facilities/ Safe Rooms	4
Repetitive Loss Program/ Buyout	4
Levee & Dam Improvement/Inspection/ Studies	5
Implement/ maintain natural features	2
Further Flood Risk Study/ Mitigation Plan	2
Retention Basin/ Detention Structure	3
Channel, Canal improvement	3
Elevate roadway/ Building	2
Construct barriers to Reduce Runoff	1
Revise FIRMS	1
Develop Additional Regulations	1

WHAT ARE THE TOP 3 PRIORITIES THE RFPG SHOULD INCLUDE IN THE ESTABLISHMENT OF REGIONAL GOALS?



Task 4 – Assessment and Identification of Needs/FM Actions

Response Rate

Sponsors Emailed	Email Responses	Sponsors Called	Call Responses
33	11	25	14

Sponsor Feedback

Number of Actions Not Pursuing	Number of New Actions Discovered	Number of FMPs Discovered to be Operational	Number of Sponsors Already Implementing 50%+ of “Menu” Actions	Number of Sponsors Interested in Sponsoring 50%+ of “Menu” Actions
20	5	3	5	9

Task 5 – Recommend Flood Mitigation Actions

Guadalupe Regional Flood Planning Group
Region 11

Flood Mitigation Evaluation
Recommended: Yes No

Type of Study
 Flood Preparedness Modeling/Mapping Feasibility/Preliminary Engineering
 Master Plan (Citywide) Master Plan (Countywide)

Study Area
 City _____ County _____
 Watershed Name _____ HUC8 _____
 Tributaries _____
 Drainage Areas (sq miles) _____
 Stream Length (miles) _____
 Other _____

Description of Flood Risk (summary of history of flooding and need for study)

Population at Risk _____	No. Structures _____
Critical Facilities _____	Farm/Ranch Land Impacted (acres) _____
Roadway(s) Impacted (miles) _____	

Key Study Tasks
 1 _____ 2 _____
 3 _____ 4 _____

Related Goals

Estimated Cost and Schedule
 Estimated Cost _____ Estimated Duration (months) _____
 Source of cost and schedule estimates Sponsor Technical Consultant Other _____

Sponsoring Entity
 Name (primary sponsor) _____ Confirmed Yes No
 Potential Funding Sources _____

Guadalupe Regional Flood Planning Group
Region 11

Flood Mitigation Project
Recommended: Yes No

Name of Project (Descriptive title of project)

Project Area
 City _____ County _____
 Watershed Name _____ HUC8 _____
 Tributaries _____
 Drainage Areas (sq miles) _____
 Stream Length (miles) _____
 Other _____

Description of Project/Mitigation (summary of history of flooding and need/goals of project)

Type of Project

Structural	Non-Structural
<input checked="" type="checkbox"/> Detention Channelization (____ miles)	<input type="checkbox"/> Property/Easement Acquisition <input type="checkbox"/> Elevation
<input type="checkbox"/> Storm Drain (____ feet) <input type="checkbox"/> Low Water Crossing	<input type="checkbox"/> Floodplain Restoration <input type="checkbox"/> Regulatory
	<input type="checkbox"/> Flood Warning/Gauges <input type="checkbox"/> Readiness

Related Goals

Estimated Cost and Schedule
 Estimated Total Cost _____ Estimated Duration (months) _____
 Ongoing Operations and Maintenance Costs _____
 Source of cost and schedule estimates Sponsor Technical Consultant Other _____

Sponsoring Entity
 Name (primary sponsor) _____ Confirmed Yes No
 Potential Funding Sources _____

Task 5 – Recommend Flood Mitigation Actions

Guadalupe Regional Flood Planning Group
Region 11

Flood Mitigation Strategy
Recommended: Yes No

Type of Strategy
 Education and Outreach Property/Easement Acquisition Flood Warning/Gauges
 Low Water Crossing Improvements Other Other

Problem Area
City _____ County _____
Watershed Name _____ HUC8 _____
Tributaries _____
Drainage Areas (sq miles) _____
Stream Length (miles) _____
Other _____

Description of Strategy (summary of intent)

Key Tasks
1 _____ 2 _____
3 _____ 4 _____

Related Goals

Estimated Cost and Schedule
Estimated Total Cost _____ Estimated Duration (months) _____
One-time Cost (turn strategy into project or evaluation) _____
Source of cost and schedule estimates Sponsor Technical Consultant Other _____

Sponsoring Entity
Name (primary sponsor) _____ Confirmed Yes No
Potential Funding Sources _____

- Complete Verification (real action)
- Populate summary forms
- ID and address gaps (where possible)
- Present in batches
- RFPG review, discuss, vote



Task 7 – Flood Response Information and Activities

Summarize the nature and types of flood response preparations and the recovery capabilities within the Guadalupe Flood Planning Region

THE FOUR
PHASES OF
EMERGENCY
MANAGEMENT

PREPAREDNESS

RESPONSE

RECOVERY

MITIGATION



A list of entities involved

A summary of the roles and responsibilities of various entities

Actions taken or planned for recovery from past flood disasters in the region

ENTITIES INVOLVED

Ag Extension Agents

City

County

Council of Government

TWDB

FEMA

Flood control district

Local dam owner/operator

Local levee owner/operator

National Weather Service (NWS)

NOAA

River Authority or District

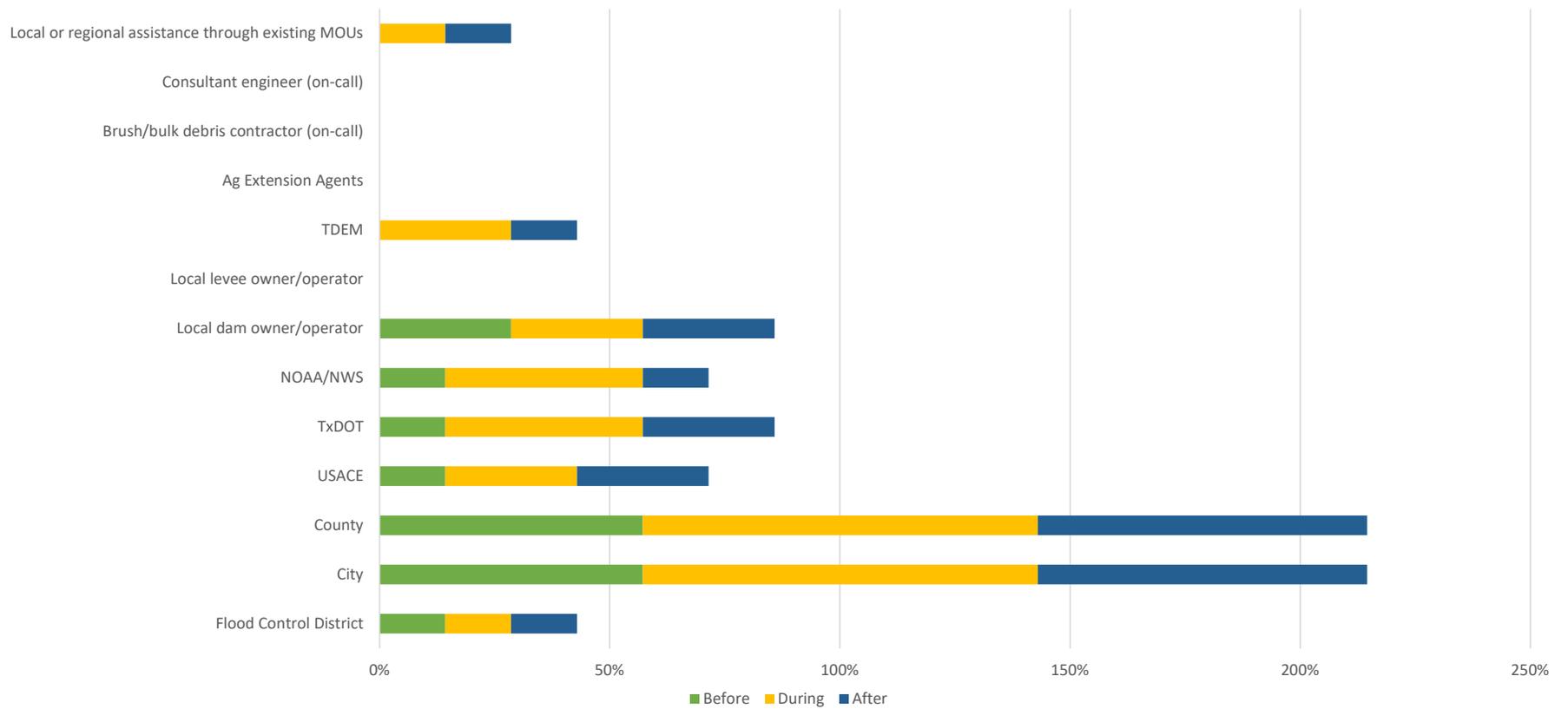
River Forecast Center

TDEM

TxDOT

USACE

Entities with whom you coordinate actions related to flood events (preparation, response, recovery, and cleanup)



PLANS TO CONSIDER

Hazard Mitigation
Action Plans

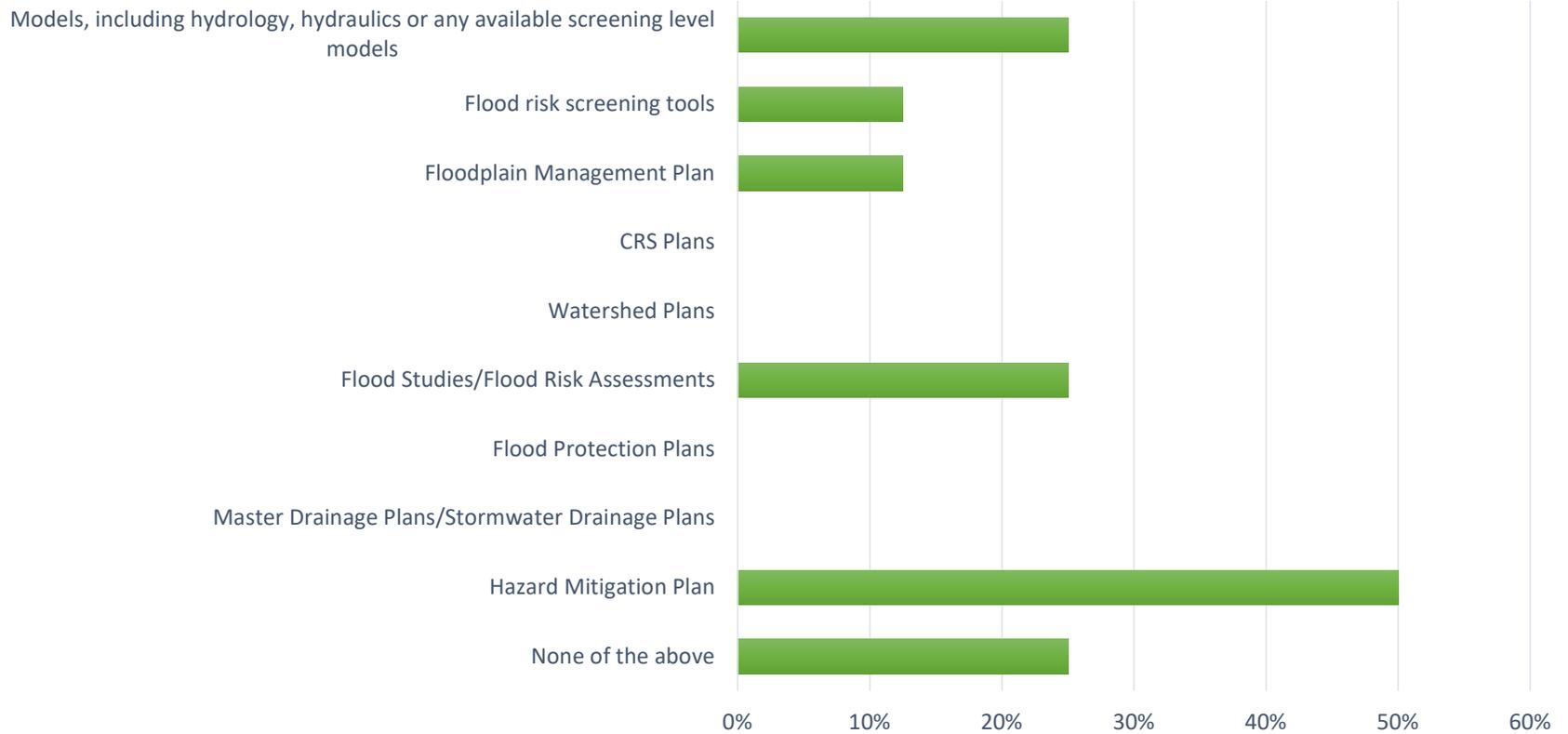
Drainage Criteria
Manual/Design
Manuals

Land Use
Regulations

Ordinances
(Floodplain,
Drainage,
Stormwater, etc)

Unified
Development
(UDC) and/or
Zoning Ordinance

What types of local and regional flood planning information does your jurisdiction have?

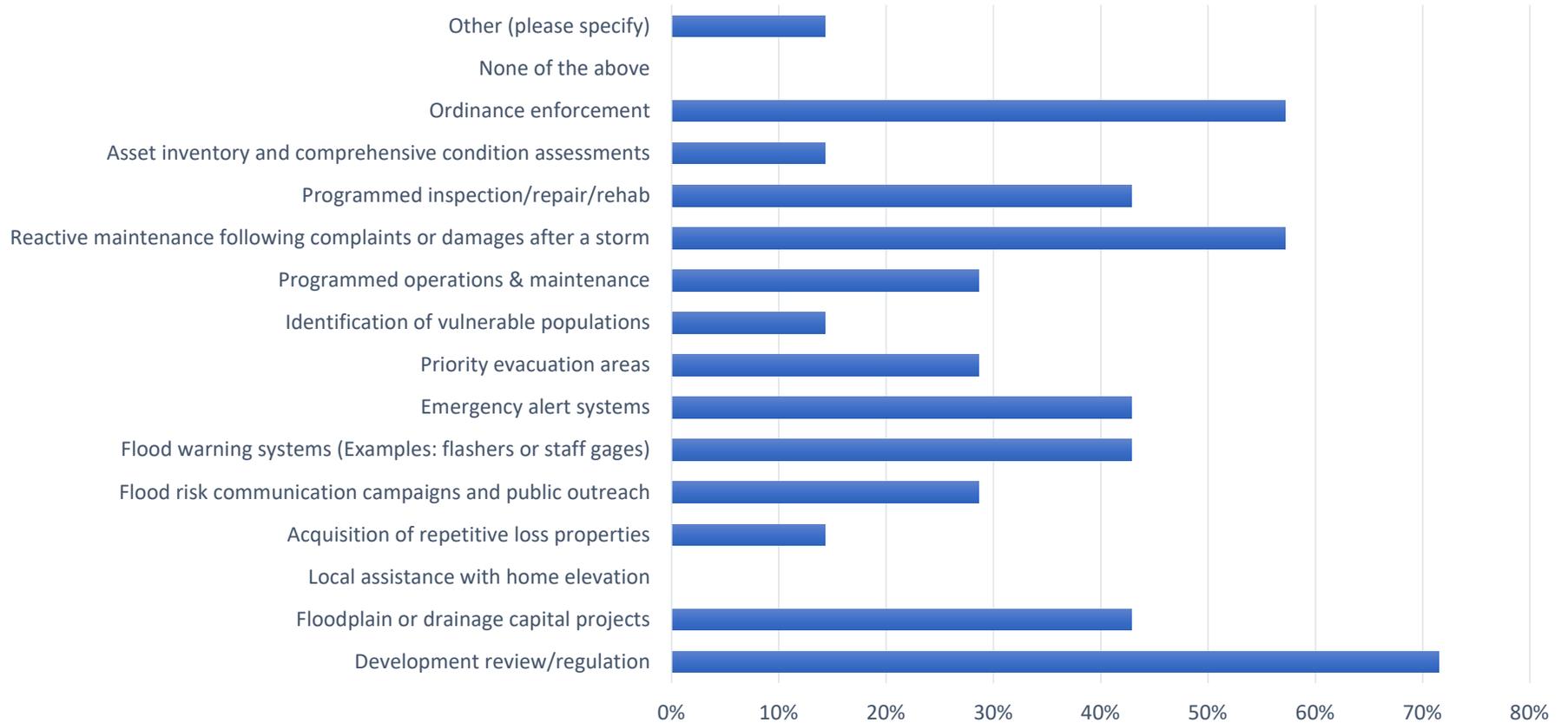


ACTIONS TAKEN OR PLANNED

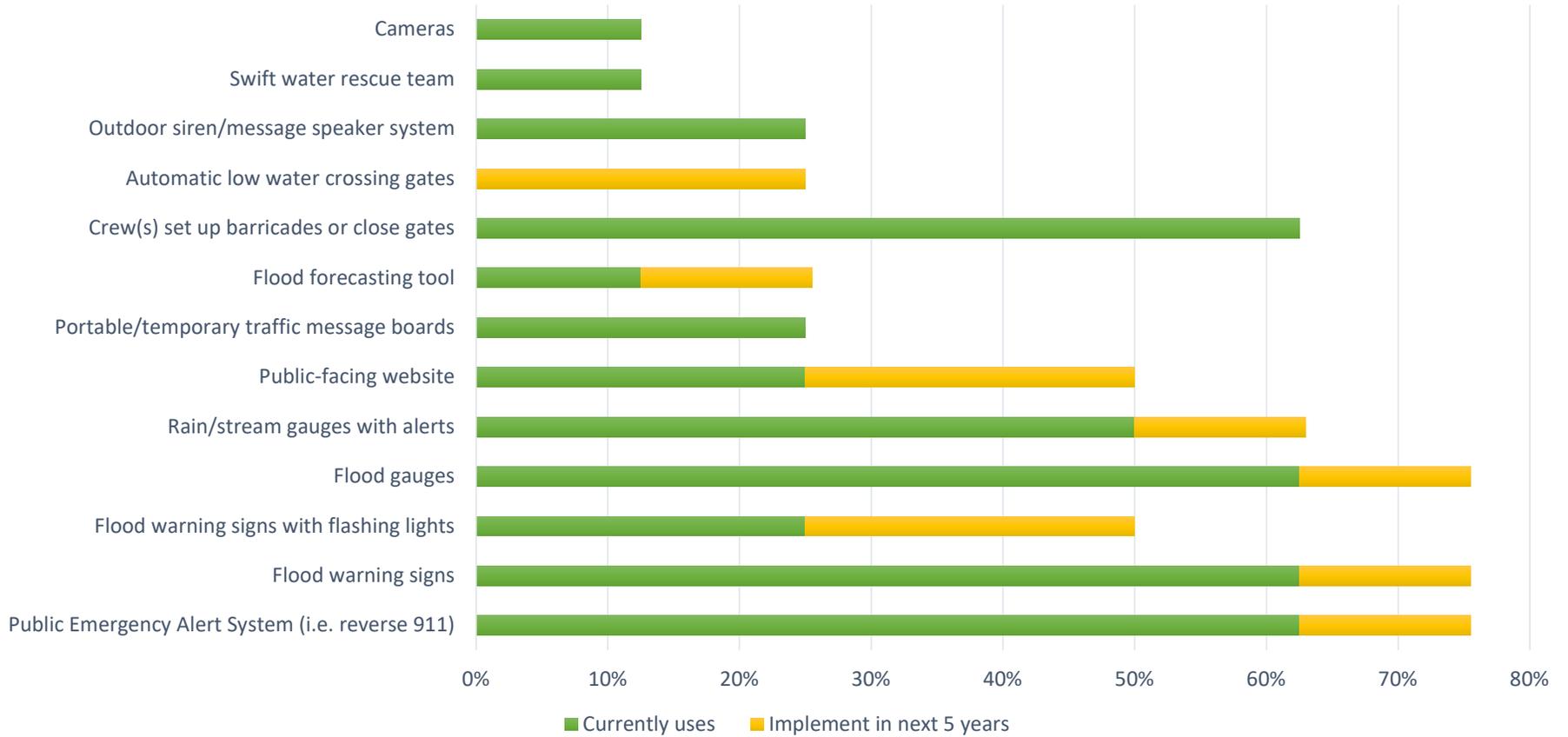
Types of Mitigation Actions from Hazard Mitigation Action Plans

- Buyout/Acquisition/Elevation
- Drainage Control & Maintenance
- Education & Awareness for Citizens
- Equipment Procurement for Response
- Erosion Control Measures
- Flood Insurance Education
- Flood Study/Assessment
- Infrastructure Improvement
- Installation/Procurement of Generators
- Natural Planning Improvement
- Outreach and Community Engagement
- Technology Improvement
- Urban Planning and Maintenance

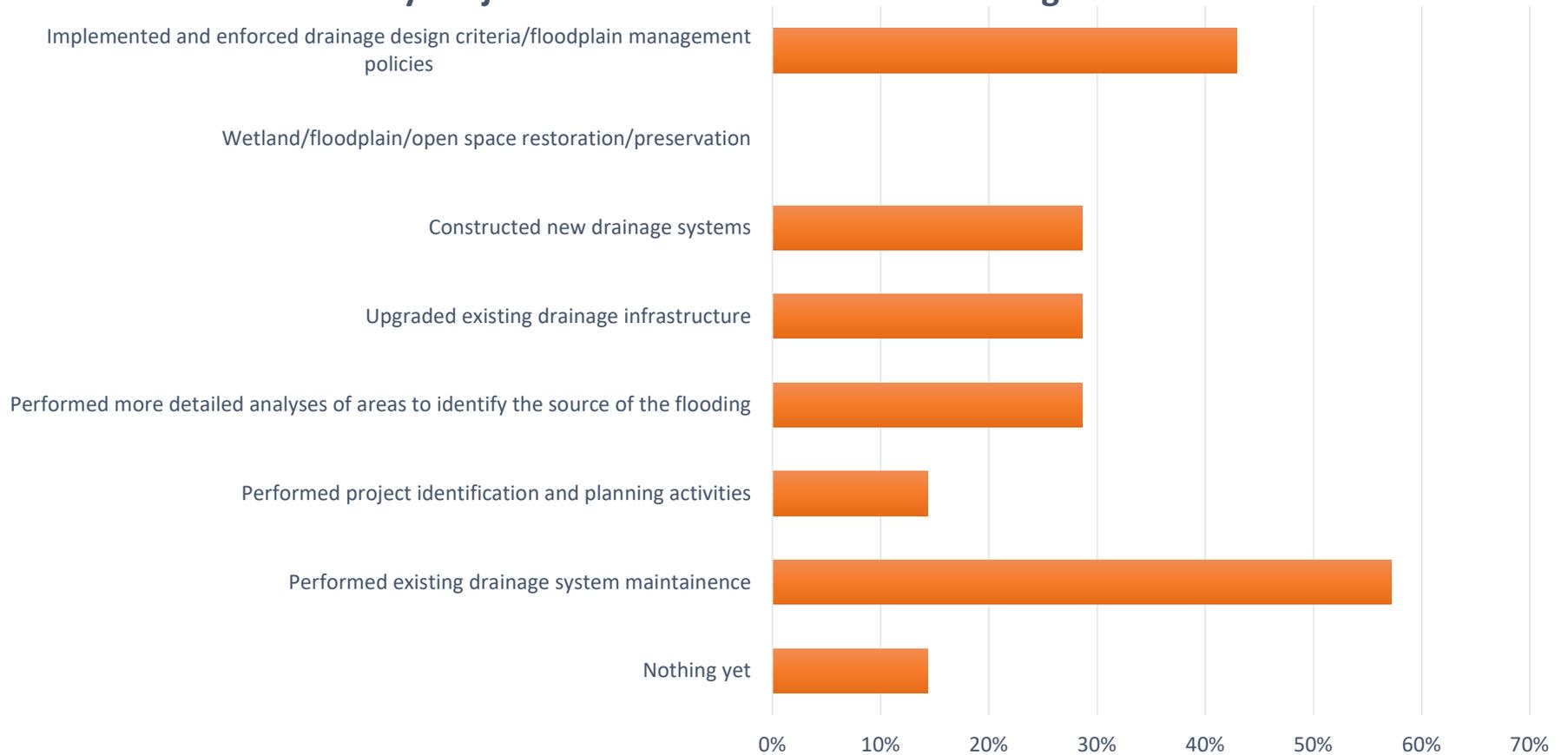
Does your community participate in the following floodplain management activities?



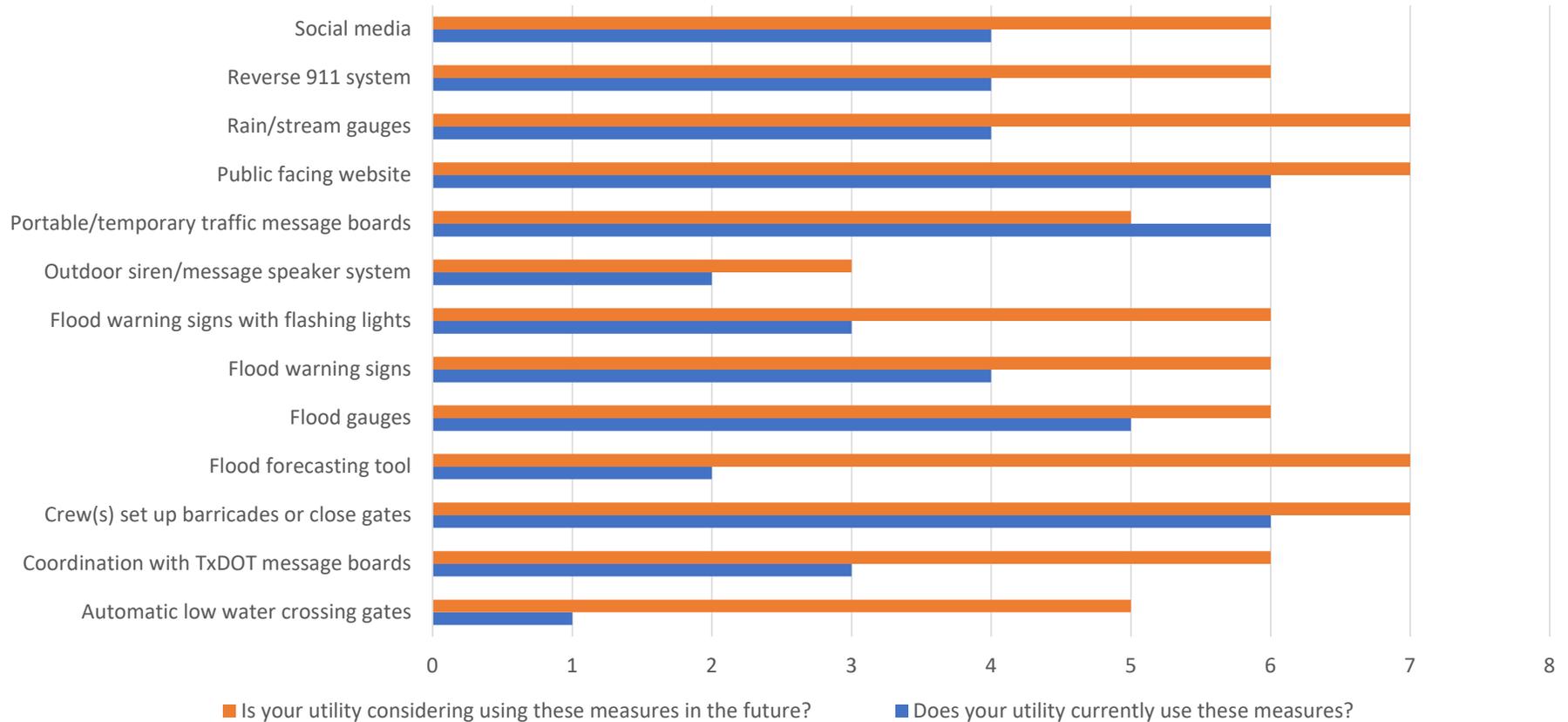
Flood Response Measures for Emergency Response



What has your jurisdiction done to address flooding concerns?



Select the flood response measure(s) your jurisdiction is using currently or exploring the feasibility in using.



*Based on data received from Canyon Regional Water Authority, Kerr County, City of Kerrville, City of Martindale, City of New Braunfels, City of San Marcos, City of Victoria, DeWitt Drainage District #1, Kendall County, Upper Guadalupe River Authority



1

Detail the roles and responsibilities of the various involved entities

2

Reference the plans, ordinances, and relevant documents for flood planning, damage prevention, and mitigation

3

Look at capabilities and actions for flood prevention, response, recovery, and mitigation



Task 9 – Flood Infrastructure Financing Analysis

How Sponsors of recommended Flood Mitigation Actions propose to finance the actions.

Financing vs Funding

- **Financing** is how you meet the upfront costs of the project
- **Funding** is how you pay for it over its lifecycle.

Task 9

- Local Funding Sources
 - Taxes
 - General fund budget
 - Bonds
 - Drainage utility fees
- State and Federal Funding Sources
 - Grants
 - Loans

Table 19: FMS, FMP, FME funding survey template format (with illustrative examples)

RFPG Number	Sponsor Entity Name	FMS or FMP or FME	FMS FMP FME - Name	Regional plan's unique FMS/FMP/FME identification number	Target year of full implementation	Estimated costs in plan			Estimated percent (share) of total FMS, FMP, or FME estimated cost			
						Non-construction costs	Construction-related costs	Total estimated cost	Sponsor Funding			TOTAL (auto) sum must = 100%
									ANTICIPATED SOURCE of Sponsor funding (e.g., taxes; general revenue; dedicated revenue incl. fees)	FUNDING TO BE FINANCED BY SPONSOR (including local, county, or regional mechanisms available but not yet fully utilized)	Other Funding Needed (including state, federal and/ or other funding)	
21	City of Howdy	FMP	Widen main downtown channel	2003	2028	\$3,484,000	\$8,129,000	\$11,613,000	stormwater fees	75%	25%	100%
21	Major River Authority	FMP	Levee improvements	3001	2030	\$37,544,000	\$212,754,000	\$250,298,000	fees	50%	50%	100%
21	James County	FME	Study southeast county flooding along Colorado River to identify solutions	4409	2024	\$722,000	\$0	\$722,000	taxes	50%	50%	100%
21	James County	FMS	Study to develop county-wide floodplain development policy	4409	2024	\$200,000	\$0	\$200,000	taxes	100%	0%	100%

These are minimum reporting requirements however, an RFPG may present more information gathered and/or utilized in the development of their plan. For example, this assessment could also include information about what existing funding mechanisms sponsors already have available or plan to implement to support the funding and implementation of recommended projects in the regional flood plan.



Task 9

Grant Types

Hazard Mitigation Grant Program (HMGP)

Assists in implementing long-term hazard mitigation planning and projects following a Presidential major disaster declaration.

Flood Mitigation Assistance (FMA) Program

Provides annual funds for planning and projects to reduce or eliminate risk of flood damage to buildings that are insured under the National Flood Insurance Program.

Building Resilient Infrastructure & Communities (BRIC)

Support for states, local communities, tribes and territories as they undertake hazard mitigation projects, reducing the risks they face from disasters and natural hazards.

Flood Infrastructure Fund (FIF)

Provides financial assistance in the form of loans and grants for flood control, flood mitigation, and drainage projects.

Community Development Block Grant Disaster Recovery Funds (CDBG-DR)

HUD provides flexible Community Development Block Grant Disaster Recovery (CDBG-DR) funds to help cities, counties, and states to recover from Presidentially declared disasters.

Task 9

Texas Stormwater Project Funding Opportunities



Texas Stormwater Project Funding Opportunities

Sponsor Grant/Loan	Flood Infrastructure Fund	Community Development Block Grant - Mitigation	Community Development Block Grant - Disaster Recovery	Texas CDBG - Community Development Fund (Grant)	Clean Water State Revolving Fund	Nonpoint Source Grant Program (Section 319 (h))	Flood Mitigation Assistance Grant	Hazard Mitigation Grant Program - 404	BRIC Grant
	TWDB Mixed Loan (0% interest) and Grant	HUD/GLO Grant	HUD/GLO Grant	TDA Grant	EPA/TWDB Loan, Loan Forgiveness	EPA/TCEQ/SWCB Grant	FEMA/TWDB Grant	FEMA/DEM Grant	FEMA/DEM Grant
Eligible Funding Activities	Drainage, flood mitigation and flood control such as: -Planning and design activities -Work to obtain regulatory approvals -Construction and implementation of flood projects	-Activities that increase resilience to disasters and reduce or eliminate the long term risk of loss of life, injury, damage to and loss of property, and suffering and hardship, by lessening the impact of future disasters. Per the Action Plan, funding will go toward 11 programs (local/regional mitigation, housing, planning), 3 of which are project competitions.	-Repairing, enhancing, and restoring infrastructure for local communities impacted by presidentially-declared disasters as part of a comprehensive long term recovery program. Match for FEMA Public Assistance and Hazard Mitigation Grant Programs may be eligible.	Plan, design and construct public works projects in nonentitlement communities	-Planning, design and construction of wastewater infrastructure, including treatment and reuse facilities -Stormwater management and Nonpoint Source (NPS) pollution control	Implementation of watershed protection plans NPS portion of Total Maximum Daily Load (TMDL) Implementation Plans Surface water quality monitoring, data analysis and modeling Best management practices (BMPs)	-Project Scoping, Community Flood Projects, Technical Assistance, Flood HMP, and Individual Mitigation Projects, including: -Acquisition for demolition or relocation -Structure elevation or reconstruction -Dry flood proofing (non-residential and	Acquisition for demolition or relocation Structure elevation Dry flood-proofing (aquifer storage and recovery, floodplain and stream restoration, flood diversion and storage, or green infrastructure) HMP development	-Capacity and Capacity Building (including HMP development, project development, application development) -Mitigation Projects, with a focus on community-wide infrastructure projects and protection of lifelines
Cost Share	Varies	None (100% Grant), additional scoring points for 1% local share							
Recent Funding Levels	2020: \$770 M	\$4.3 B total. Statewide competitive: 2015: \$46,096,950 2016: \$147,680,760 Harvey: \$2,144,776,720							
Project Funding Cap	Not explicit. Mixed grant and 0% interest rate loan	2015/2016: max \$10 M, min \$3 M Harvey: max \$100 M, min \$3 M (Projects >\$100 M are Covered Projects Requiring State Action Plan Amendment)							
Availability	On-going annual funding program for projects found in developed Texas State regional flood plans unless no funds available in any given year	One Time Occurrence (2020): Potential 2nd round of Harvey grants offered May/June 2021 (~\$1 B)							
Requirements	-Must show what the benefit/cost ratio is (at least 1:1) for construction related projects -Memorandum of understanding with neighboring political subdivisions relating to the management of watershed when same is partially located outside the applicant's jurisdiction -Must have floodplain ordinances or orders in place and enforced to NFIP standards	Presidential Disaster Declaration. Eligible Counties varies by disaster (2015, 2016, Harvey) -Socially vulnerable Low market values -Low to moderate income >51% -Competition seeks projects with the highest benefitting population / project cost ratio							
Application Deadline	One time funding - future opportunities unknown at this time	2015, 2016, 1st Round of Harvey closed Second round of Harvey unknown at this time, potentially Spring / Summer 2021 with a Fall 2021 deadline							
Website	https://www.twdb.texas.gov/financial/for-grants/404/index.asp	https://recovery.texas.gov/mitigation/							
Legend	BRIC = Building Resilient Infrastructure and Communities • EPA = Environmental Protection Agency • SFHA = Special Flood Hazard Area • SFY = State Fiscal Year • TCEQ = Texas Army Corps of Engineers • USDA RD = United States Department of Agriculture								

Sponsor Grant/Loan	Cooperating Technical Partners (CTP) Program	406 Mitigation Grant Program - Public Assistance	High Hazard Potential Dam Grant Program	Emergency Watershed Protection Program (Grant)	Watershed and Flood Prevention Operations Program	Watershed Rehabilitation	Water and Environmental Programs	Continuing Authorities Program	Deepwater Horizon (DWH) Natural Resource Damage Assessment (NRDA) Funds
	FEMA Grant	FEMA/DEM Grant	FEMA/TCEQ Grant	NRCS Grant	NRCS Grant	NRCS Grant	USDA RD Grants and Loans	USACE Grant	TGLO / TCEQ / TPWD Grant
Eligible Funding Activities	Support communities to continue ongoing regulatory NFIP responsibilities and mitigate risk through flood risk mapping, risk communications, and more (as part of the Risk MAP process). Fundable activities include: Program Management, Communication and Outreach Strategies, LOMR Review, Special Projects, Technical Hazard Identification, Risk Analysis and Mapping.	+06 funds mitigation (Public Assistance) measures in conjunction with the repair of dams (includes Planning and Risk Prioritization projects)	Technical, planning, design, and construction activities toward: repair, replacement, reconstruction or removal of dams (includes Planning and Risk Prioritization projects)	Recovery Measures for watershed impairments: -Purchase floodplain easements -Site-specific measures (non-prescriptive) to protect and repair sites, such as: -Provide protection from flooding or soil erosion -Remove debris that would affect runoff or erosion -Restore hydraulic capacity -Repair levees and structures -Repair conservation practices	Flood damage mitigation: dams, easements, flood-proofing Agricultural/rural water supply Water quality Water conservation Groundwater recharge Public fish and wildlife habitat Public water-based recreation	Rehabilitation or decommission of NRCS dams: -Funds Assessment, Planning, Design, and Construction	Design and construction of water, sanitary sewer, stormwater and solid waste facilities	-Flood risk management -Ecosystem restoration -Erosion control -Stream bank restoration -Multipurpose projects	Restoring wetlands and other coastal habitats, reducing nonpoint source pollution, replenish and protect living coastal and marine resources
Cost Share	Cost share or match is not required	25% Local/ 75% Federal	35% Local/ 65% Federal	25% Local/ 75% Federal (90% Federal for limited resource areas)	Varies, depending on both federal and state contributions	35% Local/ 65% Federal	Grants and loans based on need	Feasibility Plan - \$100,000 Federal then 50%/50% Design and Implementation 65% Federal/ 35% Applicant minimum	100% Grant
Recent Funding Levels	FY 2020 Funding: \$102.5 M	Variable (disaster-dependent)	FY 2020 Funding: \$10 M	Varies, requires Congressional Approval	\$150 M	\$12.7 M in FY 2021	\$1.8 B in 2016 total funded by WEP, across all programs	\$69.5 M in FY 2021	Varies based on major restoration categories
Project Funding Cap	Not explicit. 95 awards expected (\$1.1 M avg)	Cost must be reasonable and justifiable	Based on State Allocation	Not listed	Not listed	Historically funded ~\$1 M - \$5 M per state, multiple projects per State	Varies	Varies by section - \$5-10 M typical	Not listed
Availability	Annual	Following Presidential Disaster Declaration	Annually - dependent on the amount of funds available (TCEQ)	Following Natural Disaster (Floods, windstorms, fire, drought, etc.)	Annual	Ongoing	Ongoing	Ongoing	multiple cycles of planning, release and implementation of restoration plans will occur until funding is expended
Requirements	Participate in NFIP, comply with all statutes and regulations Sign a partnership agreement with FEMA	Declared County Eligible damaged facility and applicant Cost beneficial project OR Cost for mitigation measure doesn't exceed 15% of the damaged facility's repair cost OR mitigation measure is listed	Dam: dam classified as "high hazard potential" per State Dam Safety Program, have an Emergency Action Plan, fail to meet state safety standards Community participation in the NFIP FEMA-approved State HMP with all-dam risk Floodplain Management Plan Risk Prioritization	Impaired watershed as a result of a natural disaster Cannot solve pre-existing problems Complete within 220 days of funding HMP not required	Area must be less than 250,000 acres	NRCS dams National Environmental Policy Act	-Population less than 10,000 -Preliminary engineering report -Environmental report -Median household income	Federal requirements apply	Comprehensive, integrated ecosystem-restoration approach for implementation; Projects must be sponsored and administered by a trustee agency.

Task 8 – Administrative, Regulatory, Legislative Recommendation



- Compiling lists
 - Region 11 Planning Group Meetings
 - Other RFPG Meetings/discussions
 - Technical Consultant(s)

- Distribute list and have opportunities for discussions in May and June

Guadalupe Dashboard



Region 11 Guadalupe Regional Flood Planning

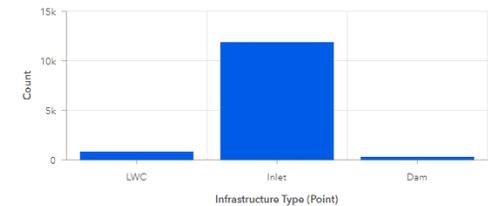
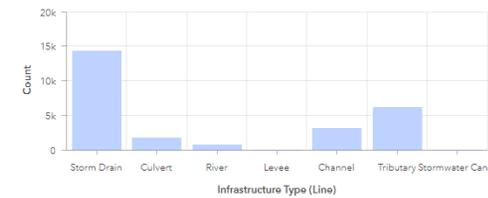
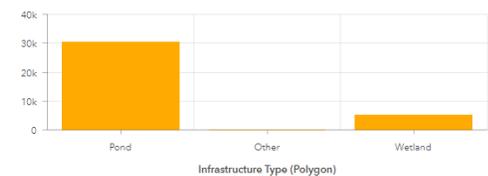
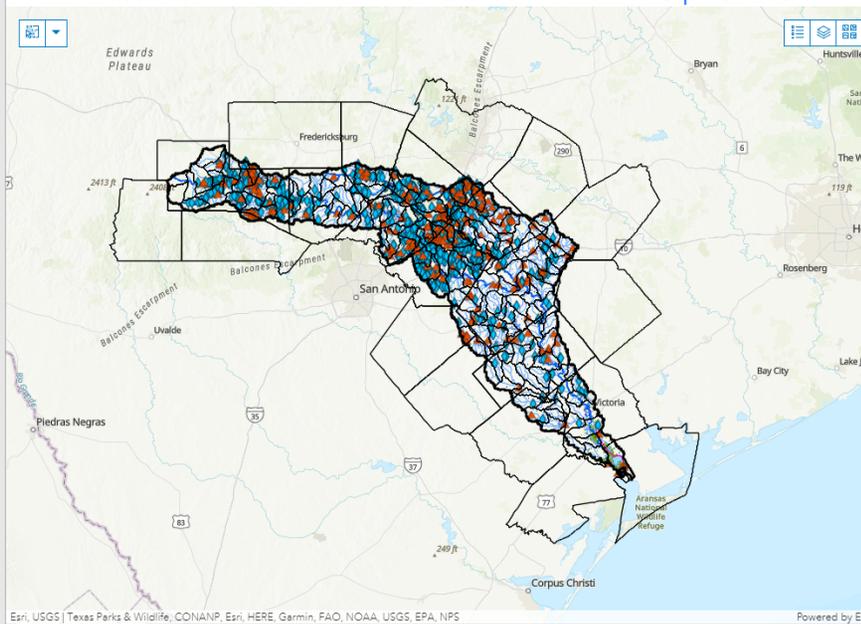
- County Selection
Select a County
- Watershed Selection
Select a Watershed
- Sponsor Selection
Choose a sponsor

Point Infrastructure
12.9k
Records

Line Infrastructure
1.5k
Miles

Polygon Infrastructure
103
Square Miles

Disclaimer: This dashboard displays DRAFT data prepared for Region 11 as part of the Texas Regional Flood Planning process. This information is an interim working product for the RFPG and will not become final until formally adopted by the RFPG as part of the Final Regional Flood Plan in January 2023.



Etri, USGS | Texas Parks & Wildlife, CONANP, Etri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS Powered by Etri



Look Ahead

Meeting	Milestone Goals
May	Task 2 Draft; Task 3 Revisit Goals; Task 4 Draft; Task 5 FMXs Task 7 Draft; Task 8 Discuss; Task 9 Draft; Task 12 Discuss
June	Task 3 Draft; Task 5 FMXs; Task 6A/B Draft; Task 8 Draft; Task 10 Draft; Task 12 Discuss
July (early)	Task 5 FMXs and Draft; Preliminary Draft Regional Plan Working/Draft
July (late)	Draft Regional Flood Plan Approval; Task 12 Discuss
August	August 1 Submittal; Posting 30-days; August 31 Public Meeting
Thru January	September 30 Close comments; October – FNI compile comments and responses; November 2 Discuss; December 7 – Approve to form; January 7 – Submit 2023 RFP

Agenda Item 11

Consider date and agenda items for next meeting

Agenda Item 12

Public General Comments

Public Comments limited to 3 minutes per speaker

Agenda Item 13

Adjourn