



Region 11: Guadalupe Regional Flood Planning Group Meeting

Wednesday, November 2, 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 September 7, 2022 and September 21, 2022 Region 11 RFPG Meetings.

Meeting Minutes
Region 11 Guadalupe Regional Flood Planning Group Meeting
September 7, 2022 at 4:30 PM

Upper Guadalupe River Authority Auditorium (125 Lehmann Dr., Kerrville, TX 78028)

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> | |
| Annalisa Peace Bill Barker* | <i>Environmental</i> | X |
| Doug Sethness Jennifer Urban* | <i>Flood districts</i> | X |
| Kevin Stone | <i>Industries</i> | |
| Joseph Pantalion John Espinoza* | <i>Municipalities</i> | X |
| Ken Gill | <i>Municipalities</i> | |
| Dr. Kimberly Meitzen | <i>Public</i> | X |
| R. Brian Perkins Charlie Hickman* | <i>River Authorities</i> | X |
| Ray Buck Tara Bushnoe* | <i>River Authorities</i> | * |
| Gian Villarreal Tami Norton* | <i>Small Business</i> | |
| Ronald (Ron) Fieseler Ben Eldridge* | <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 |
| Hollie Hischer Bierbauer | Texas Division of Emergency Management | |
| Jami McCool Kristin Lambrecht* | Texas Department of Agriculture | X |
| Allen Nash | Texas State Soil and Water Conservation Board | |
| Kris Robles Teresa Williams* | General Land Office | |
| Ryke Moore | Texas Water Development Board (TWDB) | X |
| Joel Klumpp | Texas Commission on Environmental Quality | |
| Don Durden | Public | X |
| Doris Cooksey | Region 12 Liaison | |
| Patrick Brzozowski Scott Hartl* | Region 10 Liaison | |

Quorum:

Quorum: **Yes**

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

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

Other Meeting Attendees:

| | |
|--|--|
| Lauren Willis, GBRA (Facilitator) | Betty Murphy, Citizen |
| Jay Scanlon, Freese & Nichols, Inc. | R. Murphy, Citizen |
| Adam Conner, Freese & Nichols, Inc. | Doris & James Reeh, Citizen |
| Velma Danielson, Blanton & Associates | Larry Luttrell, Assistant Fire Chief |
| Alicia Reinmund-Martinez, Blanton & Associates | T. Beck Gipson, Kerry County |
| Jonathan Letz, Kerr County | Donald Jackson, Broker/Owner |
| Rosa, Lavender Hill Country Community Journal | Carly Farmer, City of New Braunfels |
| Kurt Solis, Comfort Citizen | Charlie Hastings, Kerr County |
| Shirley Solis Comfort Chamber | Diane McMahon, UGRA |
| Kyle Burow City of Kerrville | William B. Thomas |
| Kelly, Kerr County | Roger D. Mathews, Kerrville Daily Times |
| Scott Loveland, City of Kerrville | Irene Van Winkle, West Kerr Current |
| Amy Sinclair, Comfort Citizen | Jose Morales, Hill Country Community Journal |
| Mandy & Emmanuel Flatten, Comfort Citizen | Frank Chamberlain, Kendall County WCID #1 |

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

AGENDA ITEM NO. 1: Call to Order

Chairman Miller called the meeting to order at 4:35PM. 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 July 27, 2022 Region 11 RFPG Meeting

Chairman Miller opened discussion on approving the minutes from the July 27, 2022 Region 11 RFPG Meeting.

A motion was made by Doug Sethness to approve the July 27, 2022 Region 11 RFPG Meeting minutes. John Johnston 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 RFPG.

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

Ryke Moore stated that TWDB staff is reviewing the Draft Plan that was submitted by Region 11.

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

Lauren Willis did not have any updates for the RFPG.

AGENDA ITEM NO. 7: Discussion and potential action regarding Region 11 RFPG Technical Consultants work and schedule.

a. Discussion and possible action approving the list of Flood Mitigation Evaluations (FMEs) for Task 12.

Jay Scanlon reviewed Task 12 and the objectives to identify FMEs that can be turned into a Flood Mitigation Projects (FMPs) for the amended plan. The list will be brought to the November 2, meeting. No action was taken on this item.

AGENDA ITEM NO.8: Consider date and agenda items for next meeting

The next meeting will be held on November 2, 2022. A meeting will not be held in October.

AGENDA ITEM NO. 9: Presentation: Overview of Regional Flood Planning Process and Draft Guadalupe Regional Flood Plan, Chairman Doug Miller and Jay Scanlan, PE, CFM, ENV-SP – Freese & Nichols

Chairman Miller welcomed members to the meeting and reviewed the planning process of the Region 11 RFPG. Jay Scanlan can an overview of the components making up the Draft Regional Flood Plan.

AGENDA ITEM NO. 10: Public Input: The RFPG is soliciting public input regarding the Draft Region 11 Guadalupe Regional Flood Plan (as required per Texas Water Code §16.062(f) and 31 Texas Administrative Code §361.21(h)(3) (A, F)).

Chairman Miller reviewed the process for giving public comments and opened the floor to attendees. Two public comments were received by Betty Murphy and Emmanuel Flatten.

Betty Murphy:

- Planning group must consider the small towns.
- In 1978, Comfort was under water- 3 lives lost and millions of dollars of property damage.
- Nothing has been done to prevent a similar flood from happening again.
- If another flood happens, there will be a loss of 100 lives.
- Recommends that sensors (from USGS) should be installed in Cypress Creek in Comfort. These sensors could provide an early warning system for local officials to learn about a possible flood.
- USGS has determined the best location and determine the costs of a sensor.

Emmanuel Flatten:

- Something needs to be done in Comfort
- In 2011 he became President of the Comfort floodplain coalition.

- The issues are bifurcated – split between Kerr & Kendall counties with Comfort being an unincorporated town.
- This makes it hard to get things done. So, the solution must be approached on a regional level.
- As mentioned by the previous speaker, Comfort officials needs an early warning system.
- In 2016, Hwy 27 bridge, a woman drowned during the flood outside of his door.
- Volunteer fire department staff had no warning on the last flood. They need an early warning system.
- No cost/benefit analysis for human life. Pamphlets telling us to move to somewhere else.

AGENDA ITEM NO. 11: Public general comments – limit 3 minutes per person

Chairman Miller opened the floor for any additional public comments. One additional comment was received by Emmanuel Flatten.

- When they built the Hwy 27 bridge, a dam was created, which forces water to go around. This situation is what killed the woman in 2016. There are 2 dams In Comfort - a dam upstream and a dam downstream. These dams have led to the flooding in Comfort in 1978 and 2016.

AGENDA ITEM NO. 12: Adjourn

Doug Sethness made a motion to adjourn. The motion was seconded by Ron Fieseler. The motion passed by unanimous consent.

The meeting adjourned at 6:15 PM by Doug Miller.

Approved by the Region 11 Guadalupe RFGP at a meeting held on November 2, 2022.

Brian Perkins, SECRETARY

Doug Miller, CHAIR

Meeting Minutes
Region 11 Guadalupe Regional Flood Planning Group Meeting
September 21, 2022 at 4:30 PM

The University of Houston-Victoria (UHV) Northwest Campus (1604 E. Airline Rd., Victoria, TX 77901)

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> | |
| Bobby Christmas | <i>Electric Generating Utilities</i> | |
| Annalisa Peace Bill Barker* | <i>Environmental</i> | |
| Doug Sethness Jennifer Urban* | <i>Flood districts</i> | X |
| Kevin Stone | <i>Industries</i> | |
| Joseph Pantalion John Espinoza* | <i>Municipalities</i> | |
| Ken Gill | <i>Municipalities</i> | |
| Dr. Kimberly Meitzen | <i>Public</i> | |
| R. Brian Perkins Charlie Hickman* | <i>River Authorities</i> | X |
| Ray Buck Tara Bushnoe* | <i>River Authorities</i> | |
| Gian Villarreal Tami Norton* | <i>Small Business</i> | X |
| Ronald (Ron) Fieseler Ben Eldridge* | <i>Water Districts</i> | X (arrived at 5:03pm) |
| Steven Fonville | <i>Water Utilities</i> | X |

| <u>Non-voting Member</u> | <u>Agency</u> | <u>Present(x)/Absent()/ Alternate Present (*)</u> |
|------------------------------------|---|--|
| Sue Reilly Beth Bendik* | Texas Parks and Wildlife Department | |
| Hollie Hischer Bierbauer | Texas Division of Emergency Management | |
| Jami McCool Kristin Lambrecht* | Texas Department of Agriculture | |
| Allen Nash | Texas State Soil and Water Conservation Board | |
| Kris Robles Shannon Longoria* | General Land Office | |
| Ryke Moore | Texas Water Development Board (TWDB) | |
| Joel Klumpp | Texas Commission on Environmental Quality | |
| Don Durden | Public | X |
| Doris Cooksey | Region 12 Liaison | |
| Patrick Brzozowski Scott Hartl* | Region 10 Liaison | |

Quorum:

Quorum: **No**

Number of voting members or alternates representing voting members present: **7**

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

Other Meeting Attendees:

Lauren Willis, GBRA (Facilitator)

Jay Scanlon, Freese & Nichols, Inc.

Adam Conner, Freese & Nichols, Inc.

Velma Danielson, Blanton & Associates

Alicia Reinmund-Martinez, Blanton & Associates

Bruce Miller

Grace Renken

Rick McBrayer, Victoria EMC

Kenneth Schustereit

Kenneth Eller, Victoria County Groundwater
Conservation District (VCGCD)

Tim Andruss, VCGCD

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

AGENDA ITEM NO. 1: Call to Order

Chairman Miller called the meeting to order at 4:32PM. Lauren Willis called roll of the planning group members to record attendance.

AGENDA ITEM NO. 2: Welcome

Chairman Miller welcomed members to the meeting.

AGENDA ITEM NO. 3: Presentation: Overview of Regional Flood Planning Process and Draft Guadalupe Regional Flood Plan, Chairman Doug Miller and Jay Scanlan, PE, CFM, ENV-SP – Freese & Nichols

Chairman Miller welcomed members to the meeting and reviewed the planning process of the Region 11 RFPG. Jay Scanlan can an overview of the components making up the Draft Regional Flood Plan.

AGENDA ITEM NO. 4: Public Input: The RFPG is soliciting public input regarding the Draft Region 11 Guadalupe Regional Flood Plan (as required per Texas Water Code §16.062(f) and 31 Texas Administrative Code §361.21(h)(3) (A, F)).

Chairman Miller reviewed the process for giving public comments and opened the floor to attendees. Threes public comments were received by Marvin Bruce Miller, Grace Renken and Kenneth Schustereit.

Marvin Bruce Miller, Owner of Miller Appliance:

- For 46 years he’s been battling the river water. While things have improved - not flooding property and business - there is one spot that still floods under the railroad tracks, which flows into the city drains and eventually into his property.
- Would want to have somebody talk to railroad company to plug the hole under the tracks.
- In 1998, when river rose 34 feet it washed the railroad tracks away and he had 4ft of flooding in his building.

Grace Renken, Renken's Nurse in Victoria:

- Purchased property in the 80's. She wanted to know when the last flood plain map was created.
- Drainage was put in and elevations taken. A corner of her property is in the floodplain. When TxDOT built an intersection near her property, the water drained away from her property in another direction. The TxDOT engineers eventually agreed with her.
- Therefore, Ms. Renken objected to the boundaries of the current flood plain map and would like to have the map corrected.

Kenneth Schustereit:

- His family has lived on the Guadalupe since 1939. Need to clean up the river channel will help the Guadalupe River basin. This is the most important thing to prevent flooding.
- Between Guadalupe and the San Antonio rivers lies a verdant cotton field. This land is now four feet of silt, where it is used to be 25,000 acres of agricultural land. This land is now out of production due to uncontrolled flooding. To clean out the silt from the river channel, Mr. Schustereit suggested to pull the plugs out of the river - the saltwater barrier, the dams in Goff and Hog Bayous, and the log jams. This will prevent the flooding.

AGENDA ITEM NO. 5: Public general comments – limit 3 minutes per person

Chairman Miller opened the floor for any additional public comments. One additional comment was received by Kenneth Schustereit.

- He has learned that if there is a repeat of the 1998 flood it will have worse effects. Since that flood, the amount of impermeable ground in the basin has increased resulting in greater flooding. It is mathematically indisputable, it will be a worse flooding. GBRA has promoted the growth in this basin.

AGENDA ITEM NO. 6: Adjourn

Doug Sethness made a motion to adjourn. The motion was seconded by John Johnston. The motion passed by unanimous consent.

The meeting adjourned at 5:22 PM by Doug Miller.

Approved by the Region 11 Guadalupe RFPG at a meeting held on November 2, 2022.

Brian Perkins, SECRETARY

Doug Miller, CHAIR

Region 11 Guadalupe RFPG Chair Updates

Agenda Item 4

Texas Water Development Board Updates

Agenda Item 5

Agenda Item 6

Guadalupe Region 11 RFPG Sponsor – GBRA
Updates

Agenda Item 7

Discussion and potential action regarding administrative expenses to be submitted to the Texas Water Development Board for reimbursement

| | |
|------------------------|-------------|
| GBRA Salaries & Fringe | \$ 3,181.00 |
| TOTAL | \$ 3,181.00 |

| Approved Budget | Project Cost This Report | Cumulative Project Cost | Balance |
|-----------------|--------------------------|-------------------------|-------------|
| \$37,866 | \$3,181.00 | \$14,739.71 | \$23,126.29 |

Agenda Item 8

Discussion and potential action regarding the solicitation to fill the vacant voting position in the River authorities interest category.

River authorities, defined as any districts or authorities created by the legislature that contain areas within their boundaries of one or more counties and that are governed by boards of directors appointed or designated in whole or part by the governor, including without limitation the San Antonio River Authority and the Palo Duro River Authority

Agenda Item 9

Discussion regarding Region 11 RFPG Technical Consultants work and schedule.

A. Discussion and potential action approving the list of Flood Mitigation Evaluations (FMEs) for Task 12.

A wide, flat landscape with a large body of water and green vegetation under a cloudy sky. The water is calm and reflects the sky. The vegetation consists of tall grasses and reeds. The sky is overcast with grey clouds.

Region 11 Guadalupe

Regional Flood Planning Group Meeting

November 2, 2022

Item 9

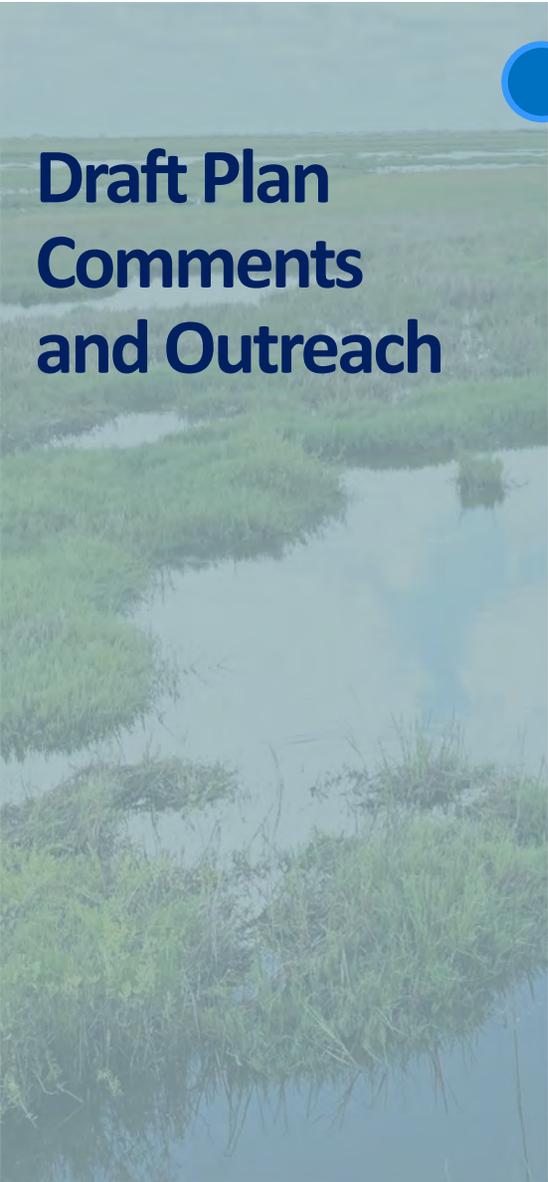


Agenda

Draft Plan Comments and Outreach

Task 12 Discussion

Look Ahead



Draft Plan Comments and Outreach

- **Overview/Summary**
- **TWDB Comments**
 - Received October 25, 2022
 - Level 1 and Level 2
- **Public Comments**
- **Reviewing and Consolidating**
 - Must respond to All
 - December 7, 2022 RFPG Meeting



Public Meetings on the Draft Plan

Summary of Comments

| | |
|--|----|
| Verbal comments provided at public meetings | 5 |
| Written comments received during 60-day comment period | 3 |
| Written comments received after October 7, 2022 | 4 |
| Total | 12 |

- 60-day comment period: August 8 through October 7, 2022.
- Required public meeting held on September 7, 2022 at Upper Guadalupe River Authority Office in Kerrville
- Additional public meeting held on September 21, 2022 at University of Houston – Victoria NW Campus in Victoria
- Outreach included two email blasts, media advisories, and press releases.



September 7, 2022 Public Meeting - Kerrville

Summary of Attendees

| | |
|---|----|
| Citizens and local government officials | 18 |
| Elected Officials | 2 |
| Media | 4 |
| Total | 24 |

- Two individuals provided verbal comments.
- Most attendees noted they received meeting announcement via email.
- Media noted they received notice via press release.
- Media attendees included representatives from Kerrville Daily Tribune, West Kerr Current, and the Hill Country Community Journal.



September 21, 2022 Public Meeting - Victoria

- Three individuals provided verbal comments.
- Attendees noted they received meeting announcement via email or press release.

Summary of Attendees

| | |
|---|---|
| Citizens and local government officials | 5 |
| Elected Officials | 1 |
| Media | 0 |
| Total | 6 |



Task 12 FMEs to be Performed

- **RFPG Consensus to Focus on Low Water Crossings**
 - Life/Safety
 - Full FME table
- **Sponsor Outreach**
- **Recommended FMEs**
 - City of Kerrville – First Street
 - City of Kerrville – Fourth Street
 - Comal County – River Road
 - San Marcos – McKie St or S. LBJ at Willow Springs*
 - Victoria County – Nursery Road
 - Victoria County – Parson Road

Others Identified if Budget allows



Task 12 Recommended FMEs

MEMORANDUM



10431 Morado Circle, Suite 300 • Austin, Texas 78759 • 512-617-3100 • FAX 512-735-7491

www.freese-nichols.com

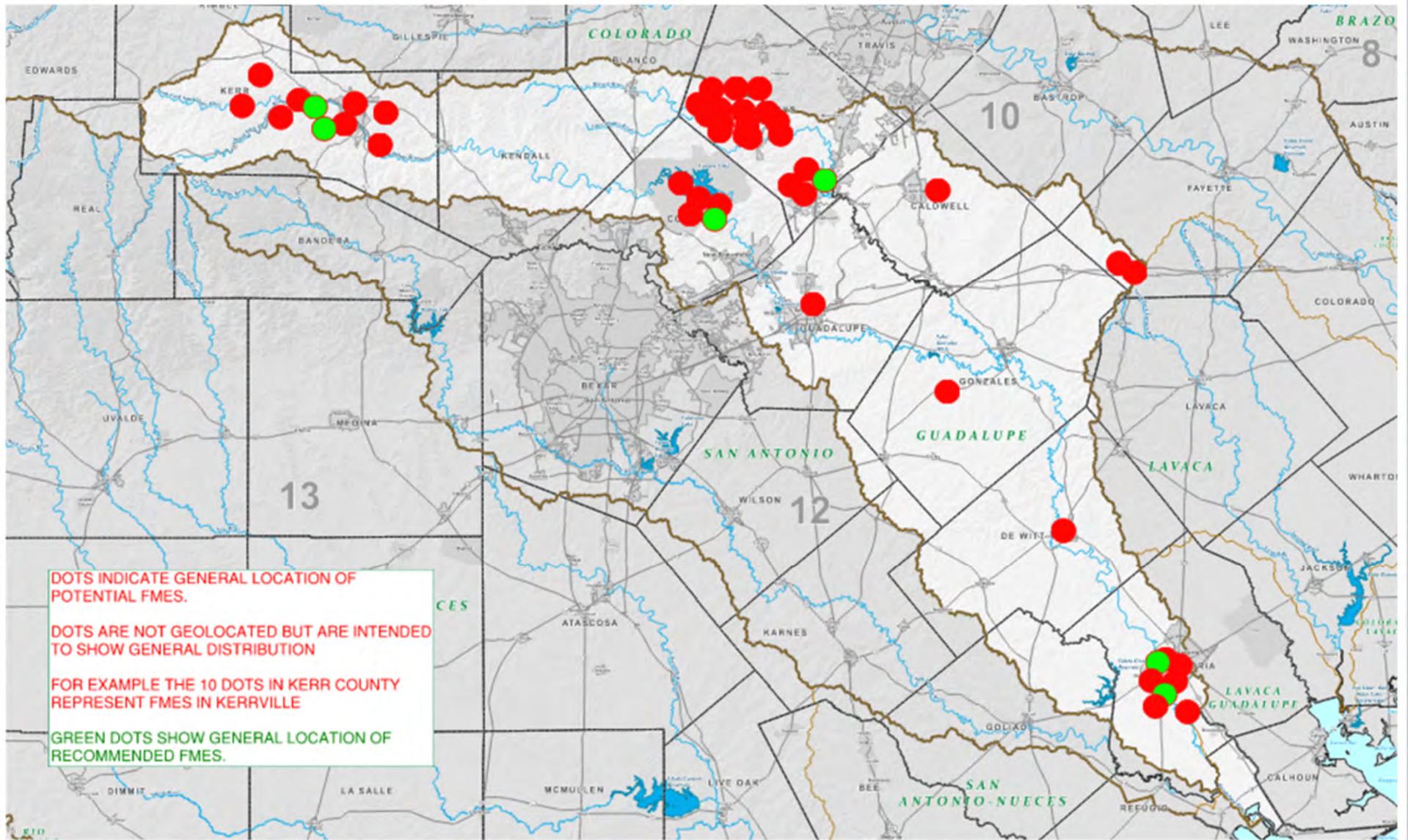
TO: Region 11 Regional Flood Planning Group
CC: Project Files
FROM: Jay Scanlon, P.E., Adam Cohnier, PMP, CFM
SUBJECT: Task 12 Recommended FMEs
DATE: 10/28/2022
PROJECT: GBAZ1362

As discussed at previous Flood Planning Group meetings, the Texas Water Development Board Amendment includes funding in Task 12 for the purpose of performing Flood Management Evaluations (FMEs) recommended in the Draft Regional Flood Plan, with the goal of advancing those to Flood Mitigation Projects (FMPs) in the July 2023 Amended Regional Flood Plan. The funding is limited, thus the number of FMEs that can be completed is limited and the Planning Group must approve the FMEs to be completed.

For the September 2022 Planning Group meeting, the Technical Consultants (TC) narrowed the full FME list to about 50 candidate FMEs. At that meeting, the TC requested guidance/preferences from the Planning Group for which FMEs to devote Task 12 funds. The consensus was to focus on Low Water Crossing FMEs whose primary objective is reducing loss of life and increasing public safety by way of infrastructure improvements. During September and October 2022, the TC reached out to the communities with LWC FMEs for additional information and clarification. The additional information allowed us to assess the level of effort needed, determine if the Sponsor supports development of the FMP, and/or determine if the Sponsor plans to apply for future Flood Infrastructure Fund (FIF) loans/grants to implement the project.

Those outreach efforts revealed that some of the current LWC FMEs are slated to be completed by the Sponsor, some Sponsors are considering Flood Early Warning Systems or gates rather than structural improvements, and some FMEs for which the Sponsor is not ready to pursue at this time. The TC was able to confirm there are candidate FMEs and supportive Sponsors located in the upper, middle, and lower basin and proceeded to estimate the costs associated with developing the study and documents needed to elevate the recommended FMEs to FMPs.

The TC are recommending a total of six FMEs – two in the upper basin, two mid basin, and two in the lower basin. The team will monitor budgets and, if the level of effort to complete some of the FMEs is less than anticipated, we will inform the RFPG and will bring forward additional FMEs for consideration. The attached map shows the general location of the proposed FMEs (green dots) which include Kerrville, San Marcos, Comal County, and Victoria County. Attached you will also find summary information and budget estimates for five of the six recommended FMEs (additional information for the San Marcos LWC is pending) as well as a full list of FMEs in the draft plan with a note indicating why most were not recommended for Task 12.



| FME ID | FME Name | Description | Counties | Sponsor | Reason for not recommending |
|-----------|---|--|---|---|--|
| 111000100 | Comal County River Road Low Water Crossing Improvement Project Planning | Project planning for proposed project to implement low water crossing improvements at River Road. | Comal | Comal | Recommended |
| 111000024 | City of Kerrville First Street Low Water Crossing Project Planning | Project planning for proposed project to improve or replace the First Street Low Water Crossing. | Kerr | Kerrville | Recommended |
| 111000025 | City of Kerrville Fourth Street Low Water Crossing Project Planning | Project planning for proposed project to improve or replace the Park Street Low Water Crossing. | Kerr | Kerrville | Recommended |
| 111000132 | Victoria County Bridge Improvements Project Planning | Project planning to raise various County bridges above current Base Flood Elevation (BFE) levels to include such improvements as: box culverts, wingback walls, rip rap, channelization, and road base improvement. | Victoria | Victoria | Study Identified Specific Road Crossings Recommended 2 FMEs |
| 111000139 | City of San Marcos ____ Low Water Crossing Improvement | Stormwater and Public Works have a number of known LWC's that are not currently programmed for FME. Staff is working to ID the top candidate(s) for Task 12 because the identified LWC FMEs will be completed by the City. | Hays | San Marcos | Recommended (backup material pending) |
| 111000108 | GBRA FEMA Cooperating Technical Partners (CTP) Modeling and Mapping | GBRA has entered into a partnership with FEMA by which GBRA commissions an engineering firm to perform flood inundation modeling and mapping, and dams in series modeling. | Bandera, Bastrop, Blanco, Caldwell, Calhoun, Comal, De Witt, Fayette, Gillespie, Goliad, Gonzales, Guadalupe, Hays, Kerr, Kendall, Kerr, Lavaca | Guadalupe-Blanco River Authority | Modeling and mapping - not project planning |
| 111000001 | Blanco County Low Water Crossing Improvements Study | Study of solutions to upgrade and/or raise low water crossing in the county. The low water crossings most frequently and most severely flooded will be assessed for elevation and improvement (e.g., curbed and/or pedestrian walkways) roadways. | Blanco | Blanco | Too large/long for Task 12 |
| 111000002 | Blanco County Soil Conservation Plan | Develop soil conservation plan which provides information on proper land stewardship including diagram, soil map, assessment of vegetation and wildlife fuels, schedule for applying conservation practices; plan for operation and maintenance. | Blanco | Blanco | Too large/long for Task 12 |
| 111000137 | Emergency power generators at critical infrastructure/key resource locations project planning | Project planning to install emergency generators at critical facilities to provide back-up power from hazard events. | Blanco | Blanco | Too large/long for Task 12 |
| 111000003 | Caldwell County Bridge Improvements Project Planning | Project planning for proposed project to replace antiquated bridges built before 1950. These bridges cannot support the weight of emergency vehicles. In addition, upgraded bridge infrastructure would reduce backwater flooding at undersized crossings. | Caldwell | Caldwell | Too large/long for Task 12 |
| 111000005 | Caldwell County Emergency Service District #3 River Crossing Improvements Study | Study solutions to upgrade river crossings throughout the district including but not limited to Scull Road Bridge. | Caldwell | Caldwell County Emergency Service District #3 | Too large/long for Task 12 |
| 111000006 | Caldwell County Emergency Service District #3 Repetitive Loss Property Mitigation Study | Study of identify flood-prone and repetitive loss properties through the Texas Water Development Board and identify and study solutions to reduce or eliminate flooding at identified properties. | Caldwell | Caldwell County Emergency Service District #3 | Too large/long for Task 12 |
| 111000007 | Caldwell County Emergency Service District #4 Fire Station 2 Project Planning | Planning for proposed project to build a swell and raise driveway of Fire Station 2 to prevent inundation of facility and to keep station in service during major storm events. | Caldwell | Caldwell County Emergency Service District #4 | RFPG guidance - not LWC |
| 111000035 | City of Lockhart Drainage Improvements Study | Study to identify Capital Improvements to Municipal Drainage System and study solutions to upgrade system to improve drainage capacity and reduce flood damages. | Caldwell | Lockhart | Too large/long for Task 12 |

| FME ID | FME Name | Description | Counties | Sponsor | Reason for not recommending |
|-----------|--|---|----------------|---|-----------------------------|
| 111000036 | City of Lockhart USACE Study | Undertake a comprehensive study of flood risk and reduction alternatives with USACE, covering all incorporated and unincorporated areas of the city that currently have limited studies with no determined base flood elevations as well as unmapped areas. | Caldwell | Lockhart | Too large/long for Task 12 |
| 111000038 | City of Martindale Drainage Improvements Study | Study of solutions to upgrade undersized stormwater drains and culverts. | Caldwell | Martindale | Too large/long for Task 12 |
| 111000004 | Caldwell County Emergency Service District #1 Drainage and Utility Plan | Develop a drainage and utility plan. | Caldwell, Hays | Caldwell County Emergency Service District #1 | Too large/long for Task 12 |
| 111000051 | City of Niederwald Engineering Review of City Hall | Contract a consultation from an engineer to review the new City Hall building to ensure its resiliency (modular building that holds community documents and archives). | Caldwell,Hays | Niederwald | No life/safety issues |
| 111000068 | City of Uhland Drainage Improvement Project Planning | Project planning for proposed project to mitigate against flooding by increasing the capacity of drainage routes to contain the storm water. Proposed drainage improvements will reduce flood waters backing up into the City. | Caldwell,Hays | Uhland | Too large/long for Task 12 |
| 111000013 | City of Bulverde Drainage Improvements Study | Study of solutions to replace existing culverts with larger ones, improve drainage channels; clear-out existing drainage channels; survey and remove hazardous trees from drainage systems. | Comal | Bulverde | Too large/long for Task 12 |
| 111000014 | City of Bulverde Local Flooding Study | Study of solutions to elevate some segments of roadways in various portions of the community to address localized flooding issues. | Comal | Bulverde | Too large/long for Task 12 |
| 111000096 | Comal County Evacuation and Dam Safety Plan | Develop evacuation and dam safety plan for coordination with USACE and dam re-enforcement. | Comal | Comal | Evacuation Planning |
| 111000097 | Comal County Low Water Crossing Improvements Project Planning | Project planning to upgrade low water crossings with larger culverts and elevated roadways where feasible. Acquire easement and/or right of ways adjacent to River Road for first responder access | Comal | Comal | Too large/long for Task 12 |
| 111000098 | Comal County Voluntary Buyout Program Project Planning | Project planning to remediate repetitive losses along the Guadalupe River by acquiring flood damaged structures and converting acquired land to open(green)space. | Comal | Comal | Too large/long for Task 12 |
| 111000099 | Comal County Retention Dam Project Planning | Project planning for proposed project to design and construct 4 retention dams to assist in controlling flash flooding in municipalities and unincorporated areas of the county. | Comal | Comal | Too large/long for Task 12 |
| 111000017 | City of Garden Ridge Drainage Improvements Project Planning | Project planning to complete final phase of drainage infrastructure upgrades. | Comal | Garden Ridge | Too large/long for Task 12 |
| 111000043 | City of New Braunfels - Box Culvert Installation to Reduce Flood Risk on Blieders Creek, Comal River and Landa Park Project Planning | Project planning for proposed drainage improvements project to reduce flooding in the Blieders Creek and German Creek watersheds by conveying flows to the Guadalupe River. The project is also intended to relieve flooding in the Landa Park area. | Comal | New Braunfels | RFPG guidance - not LWC |
| 111000044 | City of New Braunfels Faust St / Nacogdoches Ave Improvements Project Planning | Study to analyze drainage conveyance and flooding issues within the Faust Street and Nacogdoches Avenue area and project planning for solutions within project area. | Comal | New Braunfels | RFPG guidance - not LWC |

| FME ID | FME Name | Description | Counties | Sponsor | Reason for not recommending |
|-----------|---|---|-----------|-----------------------------------|-----------------------------|
| 111000045 | City of New Braunfels Dry Comal Creek Tributary East Watershed Project Planning | Study to analyze drainage conveyance and flooding issues within the Dry Comal Creek Tributaries East area (Kerlick Lane/Encino Drive/Mission Drive) and project planning for solutions within project area. | Comal | New Braunfels | Too large/long for Task 12 |
| 111000045 | City of New Braunfels South Guadalupe Tributary Watershed Project Planning | Study to analyze drainage conveyance and flooding issues within the South Guadalupe River tributary area (Mesquite/Eastman/Oleander/Walnut Heights) and project planning for solutions within project area. | Comal | New Braunfels | Too large/long for Task 12 |
| 111000047 | City of New Braunfels Hunters Creek Regional Project Planning | Study to analyze drainage conveyance and flooding issues within the Hunters Creek area including the detention facility for the Westpointe development and project planning for solutions within project area. | Comal | New Braunfels | Too large/long for Task 12 |
| 111000049 | City of New Braunfels Dry Comal Creek West Watershed Project Planning | Project planning for solutions to minimize flooding issues within the Cedar Elm Street, Landa-Madeline drainage area. | Comal | New Braunfels | Too large/long for Task 12 |
| 111000101 | City of Cuero Drainage Improvements Study | Study of solutions to improve drainage and stormwater system to reduce drainage and flooding issues. | De Witt | Cuero | Too large/long for Task 12 |
| 111000102 | City of Cuero City Public Service Station Project Planning | Project planning for proposed project to retrofit or floodproof City Public Service Station currently under renovation. Facility will serve as secondary location for community offices and critical utility service data and equipment. | De Witt | Cuero | No life/safety issues |
| 111000103 | City of Cuero WWTP Floodproofing Project Planning | Project planning to floodproof/retrofit older components of the Cuero Wastewater Treatment Plant subject to flooding. | De Witt | Cuero | RFPG guidance - not LWC |
| 111000104 | Dewitt County Drainage District Channel Improvements Project Planning | Project planning for proposed project to install drop basket structure and reconstruct drainage channels to control flooding and erosion. Structure will assist in stabilizing banks and holding bottoms of channel on grade | De Witt | Dewitt County Drainage District 1 | Too large/long for Task 12 |
| 111000105 | DeWitt County (City of Nordheim) Flash Flood Mitigation Project Planning | Project planning for proposed project to construct necessary barriers or berms to reduce impact of runoff from flash floods onto neighborhoods, streams, and impacting community water wells from proposed Pilot Knob landfill. | De Witt | Nordheim | Too large/long for Task 12 |
| 111000015 | City of Flatonia Drainage Project Planning | Project planning for proposed project to make culvert and drainage ditch improvements from just south of the Union Pacific Railroad at US 90 to the north side frontage road of I-10. | Fayette | Flatonia | RFPG guidance - not LWC |
| 111000016 | City of Flatonia WWTP Floodproofing Project Planning | Project planning for proposed project to floodproof Waste Water Treatment Plant | Fayette | Flatonia | RFPG guidance - not LWC |
| 111000106 | Gillespie County Low Water Crossing Improvements Project Planning | Project planning to place automatic warning signs at 35 documented low water crossings in the county | Gillespie | Gillespie | Too large/long for Task 12 |
| 111000107 | Gonzales County Voluntary Buyout Program Project Planning | Project planning to develop and implement a program to buyout NFIP repetitive loss properties. | Gonzales | Gillespie | Too large/long for Task 12 |
| 111000018 | City of Gonzales Tinsley Creek Improvement Project Planning | Project planning to upgrade aging infrastructure that was overwhelmed during Hurricane Harvey. Projects may include replacing box culvert bridges, replacing box culvert bridges with clear span bridges, and relocating utilities within the stream bed. | Gonzales | Gonzales | Too large/long for Task 12 |

| FME ID | FME Name | Description | Counties | Sponsor | Reason for not recommending |
|-----------|---|--|-----------------|---------------------------------|-----------------------------|
| 111000019 | City of Gonzales Tinsley Creek Flood Mitigation Project Planning | Project planning for proposed improvements along Tinsley Creek include replacing a low water crossing at Johnson Street, adding culverts under Johnson Street, and replacing box culvert crossings with free span bridge crossings at several streets. | Gonzales | Gonzales | Too large/long for Task 12 |
| 111000079 | City of Waelder Voluntary Buyout Program Project Planning | Project planning to develop and implement a program to buyout NFIP repetitive loss properties. | Gonzales | Waelder | Too large/long for Task 12 |
| 111000052 | City of Nixon Voluntary Buyout Program Project Planning | Project planning to develop and implement a program to buyout NFIP repetitive loss properties. | Gonzales,Wilson | Nixon | Too large/long for Task 12 |
| 111000008 | Canyon Regional WA Hays Caldwell Water Treatment Plant Floodwall Project Planning | Project planning for Canyon Regional WA - Hays Caldwell Water Treatment Plant Floodwall Project | Guadalupe | Canyon Regional Water Authority | RFPG guidance - not LWC |
| 111000010 | City of Cibolo and Seguin Road Access and Conditions Study | Study to evaluate access and road conditions for response vehicles, develop and implement options to improve access and/or add redundant access routes in high risk areas. | Guadalupe | Cibolo | Too large/long for Task 12 |
| 111000011 | City of Cibolo and Seguin USACE Study | Undertake a comprehensive study of flood risk and reduction alternatives, with the assistance of the U.S. Army Corps of Engineers. Project planning to implement feasible alternatives for flood reduction. | Guadalupe | Cibolo | Too large/long for Task 12 |
| 111000109 | Guadalupe County Drainage Improvements Study | Study of solutions to upgrade undersized stormwater drains and culverts. | Guadalupe | Guadalupe | Too large/long for Task 12 |
| 111000110 | Guadalupe County Voluntary Buyout Program Project Planning | Project planning to develop a land acquisition program in flood hazard areas. Acquire and demolish repetitive loss properties. Acquire high risk vacant land and maintain as open space. | Guadalupe | Guadalupe | Too large/long for Task 12 |
| 111000111 | Guadalupe County LWC Project Planning | Project planning for proposed project to mark and place electric gates at low water crossings. | Guadalupe | Guadalupe | Too large/long for Task 12 |
| 111000061 | City of Seguin Drainage Improvements Study | Study of solutions to increase drainage capacity, add stormwater detention and/or retention basins, and implement drainage improvements as deemed necessary to reduce flood risk. | Guadalupe | Seguin | Too large/long for Task 12 |
| 111000062 | City of Seguin Low Water Crossing Improvements Study | Study of solutions for drainage improvements at low water crossings. | Guadalupe | Seguin | Too large/long for Task 12 |
| 111000063 | City of Seguin Ingress Egress Improvements Project Planning | Project planning for proposed project to provide/construct additional means of access into single-entry neighborhoods; Update subdivision codes for a higher level of ingress and egress. | Guadalupe | Seguin | Too large/long for Task 12 |
| 111000064 | City of Seguin City-wide Drainage Improvements Project Planning | Project planning to increase Regional Detention, Channel & Drainage System Improvements. | Guadalupe | Seguin | Too large/long for Task 12 |
| 111000065 | City of Seguin Voluntary Buyout Program Project Planning | Project planning to develop an acquisition and elevation program in flood hazard areas. Elevate or acquire and demolish repetitive loss properties. Acquire high risk vacant land and maintain as open space. | Guadalupe | Seguin | Too large/long for Task 12 |

| FME ID | FME Name | Description | Counties | Sponsor | Reason for not recommending |
|-----------|---|---|-------------------------|---------------|---|
| 111000066 | City of Seguin Citywide Drainage Project Planning | Project planning for four priority drainage projects within the City of Seguin that would greatly improve the safety of their 25,520 residents. Project areas include North Guadalupe, North Heideke, Mays Creek and Walnut Branch. | Guadalupe | Seguin | Too large/long for Task 12 |
| 111000067 | City of Seguin Sewage Treatment Plant Floodproofing Project Planning | Project planning for proposed project to flood-proof sewage treatment plants in flood hazard / low-lying areas. | Guadalupe | Seguin | RFPG guidance - not LWC |
| 111000037 | City of Luling Drainage Improvements Study | Study of solutions to upgrade undersized stormwater drains and culverts. | Guadalupe, Caldwell | Luling | Too large/long for Task 12 |
| 111000054 | City of San Marcos Regional Detention Study | Study of solutions for regional detention and water quality strategies. | Guadalupe,Caldwell,Hays | San Marcos | RFPG guidance - not LWC |
| 111000012 | City of Buda Dam Study | Study to evaluate dam failure risks, planning for structural and nonstructural measures to protect the integrity of the earthen fill dams. | Hays | Buda | Too large/long for Task 12 |
| 111000112 | Hays County Dam Inundation Maps | Conduct study and work with TCEQ to continue to develop inundation maps for all High Hazard dams. | Hays | Hays | Modeling and mapping - not project planning |
| 111000113 | Hays County Harden Critical Infrastructure Project Planning | Project planning to ensure new structures are structurally reinforced against natural hazards. To include, flood-proofing (if needed), freeboard, higher levels of soil compaction and proper perimeter drainage systems. | Hays | Hays | Regulatory - no FMP |
| 111000116 | Hays County Southeastern Property Acquisition Project Planning | Project planning for property acquisition project to mitigate repetitive loss flooding where drainage projects were analyzed and deemed ineffective for cost/ benefit reasons in southeastern Hays County. | Hays | Hays | Too large/long for Task 12 |
| 111000118 | Hays County Community Flood Mitigation Project Planning | Hays County Community Flood Mitigation Project Planning | Hays | Hays | Too large/long for Task 12 |
| 111000114 | Hays County Drainage Project Planning (Willow Springs Creek between McCarty Lane and Hunter Road) | Project planning for channel improvement and/or property acquisition project to reduce flood damages along Willow Springs Creek from McCarty Lane to Hunter Road. | Hays | Hays Co | RFPG guidance - not LWC |
| 111000115 | Hays County Drainage Project Planning (Willow Springs Creek between Hunter Rd and the Railroad) | Project planning for detention project to reduce flood damages along Willow Springs Creek from Hunter Road to the railroad. | Hays | Hays Co | RFPG guidance - not LWC |
| 111000033 | City of Kyle Prairie and Woodland Restoration Plan | Prepare and implement a prairie or woodland restoration plan for 1 or more of Kyle's park properties. Selection of a municipal park where all or a portion of the site may be restored to a natural grassland or woodland | Hays | Kyle | No life/safety issues |
| 111000034 | City of Kyle - N. Bursleson Street Drainage Improvements Project Planning | Project planning for proposed project to conduct street reconstruction and drainage improvements to minimize flooding in the downtown area. | Hays | Kyle | Too large/long for Task 12 |
| 111000039 | City of Mountain City Repetitive Loss Structure Mitigation Study | Study of solutions to floodproof or otherwise mitigate repetitive loss structures that have been identified by FEMA for the number of flood insurance claims. | Hays | Mountain City | Too large/long for Task 12 |

| FME ID | FME Name | Description | Counties | Sponsor | Reason for not recommending |
|-----------|---|--|----------|------------|--|
| 111000055 | City of San Marcos Modeling of Purgatory Creek and Willow Springs Creek Overflow Area | 2-Dimensional Modeling of the Purgatory Creek and Willow Springs Creek Overflow Area | Hays | San Marcos | Too large/long for Task 12 Will include several of the LWCs |
| 111000056 | City of San Marcos Low Water Crossing at Jackman Project Planning | Project planning to replace low water crossing at Jackman | Hays | San Marcos | To be done by City |
| 111000057 | City of San Marcos Low Water Crossing at Mitchell and Purgatory Creek Project Planning | Project planning to replace low water crossing at Mitchell and Purgatory Creek | Hays | San Marcos | To be done by City |
| 111000058 | City of San Marcos LWC at River Road and Railroad Trestle/Blanco River Project Planning | Project planning to replace low water crossing at River Road and Railroad Trestle/Blanco River | Hays | San Marcos | To be done by City |
| 111000059 | City of San Marcos LWC at S LBJ and Purgatory Creek Project Planning | Project planning to replace low water crossing at S LBJ and Purgatory Creek | Hays | San Marcos | To be done by City |
| 111000060 | City of San Marcos - Extension of River Ridge Parkway West Project Planning | Project planning for proposed project identified through the San Marcos Transportation Plan, to increase the ability to divert traffic during flooding events | Hays | San Marcos | Too large/long for Task 12 |
| 111000080 | City of Wimberley Drainage Master Plan | Creation of drainage master plan for City of Wimberley to mitigate the flood hazard by defining priorities, policies, and strategies to address and remedy the drainage needs and challenges in Wimberley. | Hays | Wimberley | City does not want to pursue at this time |
| 111000081 | City of Wimberley FM 1492 at Blanco River Low Water Crossing Project Planning | Project planning for proposed project to replace low water crossing at FM 1492 at Blanco River | Hays | Wimberley | City does not want to pursue at this time |
| 111000082 | City of Wimberley Hidden Valley at Blanco River Low Water Crossing Project Planning | Project planning for proposed project to replace low water crossing at Hidden Valley at Blanco River | Hays | Wimberley | City does not want to pursue at this time |
| 111000083 | City of Wimberley Little Arkansas at Blanco River Low Water Crossing Project Planning | Project planning for proposed project to replace low water crossing at Little Arkansas at Blanco River | Hays | Wimberley | City does not want to pursue at this time |
| 111000084 | City of Wimberley Valley Drive at Pierce Creek Low Water Crossing Project Planning | Project planning for proposed project to replace low water crossing at Valley Drive at Pierce Creek | Hays | Wimberley | City does not want to pursue at this time |
| 111000085 | City of Wimberley Flite Acres Road Low Water Crossing Project Planning | Project planning for proposed project to replace low water crossing at Flite Acres Road | Hays | Wimberley | City does not want to pursue at this time |
| 111000086 | City of Wimberley FM 1492 at Pierce Creek Low Water Crossing Project Planning | Project planning for proposed project to replace low water crossing at FM 1492 at Pierce Creek | Hays | Wimberley | City does not want to pursue at this time |
| 111000087 | City of Wimberley Wilson Creek at River Road Low Water Crossing Project Planning | Project planning for proposed project to replace low water crossing at Wilson Creek at River Road | Hays | Wimberley | City does not want to pursue at this time |

| FME ID | FME Name | Description | Counties | Sponsor | Reason for not recommending |
|-----------|--|--|----------|------------------|---|
| 111000088 | City of Wimberley Green Acres Dr. at Fire Station Low Water Crossing Project Planning | Project planning for proposed project to replace low water crossing at Green Acres Dr. at Fire Station | Hays | Wimberley | City does not want to pursue at this time |
| 111000089 | City of Wimberley Leveritt's Loop Low Water Crossing Project Planning | Project planning for proposed project to replace low water crossing at Leveritt's Loop | Hays | Wimberley | City does not want to pursue at this time |
| 111000090 | City of Wimberley Spoke Hollow Dr. at Spoke Pile Creek Low Water Crossing Project Planning | Project planning for proposed project to replace low water crossing at Spoke Hollow Dr. at Spoke Pile Creek | Hays | Wimberley | City does not want to pursue at this time |
| 111000091 | City of Wimberley River Road at Western City Limit Low Water Crossing Project Planning | Project planning for proposed project to replace low water crossing at River Road at Western City Limit | Hays | Wimberley | City does not want to pursue at this time |
| 111000092 | City of Wimberley Paradise Hills Low Water Crossing Project Planning | Project planning for proposed project to replace low water crossing at Paradise Hills | Hays | Wimberley | City does not want to pursue at this time |
| 111000093 | City of Wimberley River Road Reconstruction Project Planning | Project planning for proposed project to reconstruct roadway along Blanco River | Hays | Wimberley | City does not want to pursue at this time |
| 111000094 | City of Wimberley Little Ranches at Panther Creek Low Water Crossing Project Planning | Project planning for proposed project to reconstruct low water crossing and roadway at Little Ranches at Panther Creek | Hays | Wimberley | City does not want to pursue at this time |
| 111000095 | City of Wimberley Hoots Holler Low Water Crossing Project Planning | Project planning for proposed project to reconstruct low water crossing and roadway at Hoots Holler | Hays | Wimberley | City does not want to pursue at this time |
| 111000138 | Cypress Creek Regional detention | Regional detention project on Cypress Creek that will reduce flooding through the unincorporated town of Comfort, TX and possibly provide enhanced aquifer recharge. | Kendall | Kendall | Too large/long for Task 12 |
| 111000009 | Center Point ISD Drainage Improvements Study | Study of solutions to construct new storm drainage infrastructure to reduce the potential impacts of future flood events. | Kerr | Center Point ISD | Too large/long for Task 12 |
| 111000119 | Hunts ISD Storm Drainage Infrastructure Project Planning | Project planning to construct new storm drainage infrastructure to reduce the potential impacts of future flood events. | Kerr | Hunt ISD | Too large/long for Task 12 |
| 111000020 | City of Ingram Drainage Improvements Study | Study of solutions to upgrade existing storm drainage infrastructure to reduce the potential impacts of future flood events. | Kerr | Ingram | Too large/long for Task 12 |
| 111000120 | Ingram ISD Construct New Storm Drainage Infrastructure | Project planning to construct new storm drainage infrastructure to reduce the potential impacts of future flood events. | Kerr | Ingram ISD | Too large/long for Task 12 |
| 111000121 | Ingram ISD Improve Existing Storm Drainage Infrastructure | Project planning to upgrade existing storm drainage infrastructure to reduce the potential impacts of future flood events. | Kerr | Ingram ISD | Too large/long for Task 12 |

| FME ID | FME Name | Description | Counties | Sponsor | Reason for not recommending |
|-----------|--|---|----------|---------------------------------|--|
| 111000123 | Kerr County Dam Integrity Study | Create a dam integrity study and identify repairs to be made to County dams as necessary. | Kerr | Kerr | Too large/long for Task 12 |
| 111000122 | Kerr County Center Point Storm Drainage Infrastructure Project Planning | Project planning to construct new storm drainage infrastructure to reduce the potential impacts of future flood events. | Kerr | Kerr Co | RFPG guidance - not LWC |
| 111000022 | City of Kerrville Pinto Trail Project Planning | Project planning for proposed project to provide flood relief to the properties adjacent to the channel at risk of flooding, including widening existing channels, constructing a grass-lined trapezoidal channel, and seeding the proposed earthen channels. | Kerr | Kerrville | Based on RFPG not recommended (not LWC) |
| 111000023 | City of Kerrville Park Street Low Water Crossing Project Planning | Project planning for proposed project to improve or replace the Park Street Low Water Crossing. | Kerr | Kerrville | Lower priority (can add if budget allows) |
| 111000026 | City of Kerrville Hill Country Drive at SH 16 Project Planning | Project planning for proposed project to raise the roadway profile and regrade Hill Country Drive, and increase the downstream pipe capacity at Hill Country Drive. | Kerr | Kerrville | Lower priority (can add if budget allows) |
| 111000028 | City of Kerrville Harper Street between Culberson Avenue and Lewis Avenue Project Planning | Project planning for proposed storm drain system project to relieve localized flooding and excessive ponding that occurs throughout Harper Street. | Kerr | Kerrville | RFPG guidance - not LWC |
| 111000029 | City of Kerrville Circle Avenue Drainage Channel Project Planning | Project planning for proposed channel and street improvement project to alleviate sedimentation and erosion issues at the intersection of Culberson Avenue and Circle Avenue. | Kerr | Kerrville | RFPG guidance - not LWC |
| 111000030 | City of Kerrville Jack Drive - Undersized Inlet Project Planning | Project planning for proposed street and drainage improvements project to relieve road and property flooding from occurring directly downstream of Jack Drive's existing undersized inlet. | Kerr | Kerrville | RFPG guidance - not LWC |
| 111000031 | City of Kerrville Harper Road to Town Creek (Fay Drive) Drainage Improvements Study | Study of solutions to implement drainage improvements on Harper Road to Town Creek (Fay Drive). | Kerr | Kerrville | RFPG guidance - not LWC |
| 111000124 | Kerr ISD Storm Drainage Infrastructure Project Planning | Project planning for proposed project to construct new storm drainage infrastructure to reduce the potential impacts of future flood events. | Kerr | Kerrville ISD | Too large/long for Task 12 |
| 111000127 | Upper Guadalupe River Authority Evaluation of Water and Sediment Control Facilities | Study to evaluate the flood benefits and cost-effectiveness of UGRA's existing nine Kerr County facilities. Evaluation would include H&H modeling and financial data to determine flood risk reduction. Results could guide decisions on future facilities. | Kerr | Upper Guadalupe River Authority | Too large/long for Task 12 Feasibility not specific FMP |
| 111000126 | Travis County Voluntary Buyout Program Project Planning | Project planning to identify and prioritize structures for elevation as flood mitigation. Elevate flood prone structures throughout unincorporated Travis County. | Travis | Travis | Too large/long for Task 12 |
| 111000069 | City of Victoria Drainage Improvement Study | Study of solutions to increase dimensions of drainage culverts in areas prone to flooding and/or drainage problems in various City locations. | Victoria | Victoria | RFPG guidance - not LWC |
| 111000070 | City of Victoria Harden Critical Infrastructure Project Planning | Project planning to harden city buildings, critical infrastructure, and government buildings. Hardening of non-governmental facilities that have been identified as crucial in the response and recovery to/of emergencies and disasters. | Victoria | Victoria | Too large/long for Task 12 |

| FME ID | FME Name | Description | Counties | Sponsor | Reason for not recommending |
|-----------|--|--|----------|----------|---|
| 111000071 | City of Victoria Voluntary Buyout Program Project Planning | Project planning to implement a voluntary acquisition program for repetitive flood properties. | Victoria | Victoria | Too large/long for Task 12 |
| 111000072 | City of Victoria Flood Gate Project Planning | Project planning for proposed project to rehabilitate, repair, or replace the City of Victoria's existing flood gates, install additional flood gates as appropriate, and construct a storm water lift station in an area to be determined by study. | Victoria | Victoria | RFPG guidance - not LWC |
| 111000073 | City of Victoria Regional Drainage Solutions Project Planning | Project planning for proposed project for five regional drainage solutions within the City: the Gardens Apartment diversion, Shenandoah ditch improvements, Anthony Road outfall improvements, Lone Tree Road outfall improvements, and Clegg Ditch outfall. | Victoria | Victoria | RFPG guidance - not LWC |
| 111000074 | City of Victoria - Storm Sewer Improvements Project Planning | Project planning for project to replace storm sewer pipe under 18-inch diameter (29.9 miles). As a result of overland flow analysis and Storm Sewer System Level of Service Analysis, it was determined to replace all pipe less than 18-inch diameter. | Victoria | Victoria | RFPG guidance - not LWC |
| 111000075 | City of Victoria Clean and Televiser Storm Sewers Project Planning | Project planning for proposed project to clean and televiser storm sewers (165.7 miles). As a result of overland flow analysis and Storm Sewer System Level of Service Analysis, it was determined to clean and televiser storm sewers. | Victoria | Victoria | Too large/long for Task 12 |
| 111000076 | City of Victoria Regrade Priority Ditches and Driveway Culverts Project Planning | Project planning for proposed drainage improvements. As a result of a roadside ditch capacity evaluation, it was determined that 23 miles of ditch and 669 driveway culverts are negatively impacting conveyance capacity and need to be regraded. | Victoria | Victoria | RFPG guidance - not LWC |
| 111000077 | City of Victoria Repair Channel Failures & Sediment Removal Project Planning | Project planning for proposed channel improvements. Using field visits and drone footage, it was determined to repair 33,657 sq ft of concreted lined channel, 11,829 sq ft of earthen channel, and remove 227,099 sq ft of sediment. | Victoria | Victoria | RFPG guidance - not LWC |
| 111000078 | City of Victoria Stream Restoration Study | Study to implement a stream restoration/channelization program to ensure adequate drainage/diversion of storm water, throughout various City low water crossings, streambeds, creek sheds, tributaries, and riverine areas. | Victoria | Victoria | RFPG guidance - not LWC |
| 111000128 | Victoria County Planning and Development Standards Study | Conduct study for the development and implementation of county wide planning & development standards, sub-division rules, infrastructure rules and building / construction codes. | Victoria | Victoria | Regulatory - no FMP |
| 111000129 | Victoria County Drainage Improvements Study | Study of solutions to increase dimensions of drainage culverts in areas prone to flooding and/or drainage problems, in various county locations. | Victoria | Victoria | Too large/long for Task 12 |
| 111000130 | Victoria County FIRMs | Engineering Studies to revise Flood Insurance Rate Maps (FIRMs) throughout the County to establish Base Flood Elevations (BFE) in areas that are currently identified as unstudied Zone As. | Victoria | Victoria | Modeling and mapping - not project planning |
| 111000131 | Victoria County Drainage Improvements around County EOC Project Planning | Project planning to improve drainage around County EOC and flood-proof facilities as necessary. | Victoria | Victoria | No life/safety Issues |
| 111000133 | Victoria County Voluntary Buyout Program Project Planning | Project planning to implement a voluntary acquisition program for repetitive flood properties. | Victoria | Victoria | Too large/long for Task 12 |
| 111000134 | Wilson County Stormwater Management Plan | Develop flood hazard information by collecting information, high water marks, and conduct engineering studies to develop the 100 year and 500 year flood elevation levels. | Wilson | Wilson | Modeling and mapping - not project planning |

| FME ID | FME Name | Description | Counties | Sponsor | Reason for not recommending |
|-----------|--|---|----------|---------|-----------------------------|
| 111000135 | Wilson County Low Water Crossing Improvements Project Planning | Project planning to upgrade infrastructure at low water crossings to provide unimpeded access during 100 year base flood event to facilitate evacuation and response by emergency vehicles | Wilson | Wilson | Too large/long for Task 12 |
| 111000136 | Wilson County Voluntary Buyout Program Project Planning | Project planning to establish of a voluntary aquisition and demolition program, structure relocation program, and structure elevation program to address repetitive loss, floodprone properties. Keep a database of properties. | Wilson | Wilson | Too large/long for Task 12 |



**SCOPE AND BUDGET TO PERFORM FMEs
GUADALUPE REGIONAL FLOOD PLANNING GROUP**

| FME ID | Title | County | Sponsor |
|-----------|--|--------|-------------------|
| 111000024 | City of Kerrville First Street Low Water Crossing Project Planning | Kerr | City of Kerrville |

Study Objectives:

Flooding, dangerous roadway conditions, and frequent roadway closures during most rain events have been reported at the First Street Low Water Crossing (LWC). Existing conditions consists of five – 24" RCPs providing a combined full flow capacity of approximately 141 cfs, which is roughly 2.5% of the 5-year frequency storm event. Preliminary hydraulic models have been developed utilizing FEMA effective hydrologic flows to assess the overtopping of the roadways and the potential for roadway improvements to elevate the roadway above the 25-year or 50-year storm event. During the iterative process, it was determined that the crossing would require a substantial bridge-class structure and significant upstream and downstream channel improvements to mitigate the rise in the floodway elevation.

This study will review the existing models, analyze flood risk reduction benefits, evaluate adverse impact, develop cost estimates, perform a benefit-cost analysis, and conduct a high-level evaluation of potential constraints including environmental permitting, utility relocations, right-of-way acquisition, and constructability issues in accordance with adopted FMP screening criteria. It is likely that this project will not be able to mitigate flood events associated with the 1 percent annual chance flood (100-year level of service) but may have benefits during a lesser storm event. A final determination will be made as to whether or not a potentially feasible FMP exists for this flood problem to conclude this FME.



Required Information for FMP:

Sources of information on this FME come primarily from the City's Stormwater Master Plan (SWMP), prepared by LNV (now Ardurra). Models for this low water crossing were developed as part of the City's SWMP and are required for review and analysis of potential flood risk reduction benefits.

Sponsor Outreach:

City of Kerrville is supportive of Task 12 funds being used to further develop this FME into and FMP. This is their highest priority LWC. Existing models have been requested from Ardurra but have not yet been received.

Scope and Budget:

| Task | Estimated Cost | Estimated Time to Complete (wks) |
|---|------------------|----------------------------------|
| Task 1 – Data Collection/site visits | \$ 4,000 | 2 |
| Task 2 – Update H&H modeling | \$ 9,000 | 4 |
| Task 3 – Update preliminary design or alternatives analysis | \$ 11,000 | 4 |
| Task 4 – Evaluate flood risk reduction benefits | \$ 3,000 | 1 |
| Task 5 – Verify no negative impacts | \$ 3,000 | 1 |
| Task 6 – Develop/update cost estimate | \$ 5,000 | 1 |
| Task 7 – Complete cost-benefit analysis | \$ 4,000 | 1 |
| Task 8 – Evaluate potential constraints | \$ 3,000 | 2 |
| Task 9 – Document results (sealed technical memorandum) | \$ 11,000 | 4 |
| Totals | \$ 53,000 | 20 |

Note: If task costs/time is blank the task is not needed to complete the FME.

Recommendation:

Proceed Do not Proceed Technical Committee Concurrence RFPG Approval

Prepared by: Sarah West

Date: 10/18/2022

**SCOPE AND BUDGET TO PERFORM FMEs
GUADALUPE REGIONAL FLOOD PLANNING GROUP**

| FME ID | Title | County | Sponsor |
|-----------|---|--------|-------------------|
| 111000025 | City of Kerrville Fourth Street Low Water Crossing Project Planning | Kerr | City of Kerrville |

Study Objectives:

Flooding, dangerous roadway conditions and frequent roadway closures during most rain events have been reported at the Fourth Street Low Water Crossing (LWC). Existing conditions consists of two ~ 24" RCPs providing a combined capacity of approximately 32 cfs, which is roughly 1% of the 5-year frequency storm event. Preliminary hydraulic models have been developed utilizing FEMA effective hydrologic flows to assess the overtopping of the roadways and the potential for roadway improvements to elevate the roadway above the 25-year or 50-year storm event. During the iterative process, it was determined that the crossing would require a substantial bridge-class structure and significant upstream and downstream channel improvements to mitigate the rise in the floodway elevation.

This study will review the existing models, analyze flood risk reduction benefits, evaluate adverse impact, develop cost estimates, perform a benefit-cost analysis, and conduct a high-level evaluation of potential constraints including environmental permitting, utility relocations, right-of-way acquisition, and constructability issues in accordance with adopted FMP screening criteria. It is likely that this project will not be able to mitigate flood events associated with the 1 percent annual chance flood (100-year level of service) but may have benefits during a lesser storm event. A final determination will be made as to whether or not a potentially feasible FMP exists for this flood problem to conclude this FME.



Required Information for FMP:

Sources of information on this FME come primarily from the City's Stormwater Master Plan (SWMP), prepared by LNV (now Ardurra). Models for this low water crossing were developed as part of the City's SWMP and are required for review and analysis of potential flood risk reduction benefits.

Sponsor Outreach:

City of Kerrville is supportive of Task 12 funds being used to further develop this FME into an FMP. This is their second highest priority LWC. Existing models have been requested from Ardurra but have not yet been received.

Scope and Budget:

| Task | Estimated Cost | Estimated Time to Complete (wks) |
|---|------------------|----------------------------------|
| Task 1 – Data Collection/site visits | \$ 4,000 | 2 |
| Task 2 – Update H&H modeling | \$ 9,000 | 4 |
| Task 3 – Update alternatives analysis and/or preliminary design | \$ 11,000 | 4 |
| Task 4 – Evaluate flood risk reduction benefits | \$ 3,000 | 1 |
| Task 5 – Evaluate adverse impact | \$ 3,000 | 1 |
| Task 6 – Develop/update cost estimate | \$ 5,000 | 1 |
| Task 7 – Conduct cost-benefit analysis | \$ 4,000 | 1 |
| Task 8 - Evaluate potential constraints | \$ 3,000 | 2 |
| Task 9 – Document results (sealed technical memorandum) | \$ 11,000 | 4 |
| Totals | \$ 53,000 | 20 |

Note: If task costs/time is blank the task is not needed to complete the FME.

Recommendation:

Proceed Do not Proceed Technical Committee Concurrence RFPG Approval

Prepared by: Sarah West

Date: 10/18/2022

**SCOPE AND BUDGET TO PERFORM FMEs
GUADALUPE REGIONAL FLOOD PLANNING GROUP**

| FME ID | Title | County | Sponsor |
|-----------|---|--------|--------------|
| 111000100 | Comal County Master WID* River Road Low Water Crossing Improvement Project Planning | Comal | Comal County |

*Sponsor to be changed to Comal County

Study Objectives:

This study includes an analysis of the low water crossing at River Road on Jacobs Creek in Comal County and a recommendation for an improved structure that will be able to pass at least the 4% ACE (25-yr) event without overtopping. The existing structure consists of two 24-inch CMP culverts that are silted in on the upstream side with a contributing watershed of approximately 3.7 sq. mi. There are currently no detailed hydrology or hydraulics models available for Jacobs Creek. New hydrology and hydraulic models will be created as the basis for this study and will utilize current Atlas 14 rainfall data, current LIDAR upstream and downstream of River Road, and previously collected field survey data. Alternatives to be considered will include replacement of the existing culvert structure with a larger bridge or culvert structure that will be able to pass the required flow without overtopping the roadway. The analysis will also consider potential constraints and permitting issues. Deliverables of this study will include the following:

- New hydrologic and hydraulic modeling of existing and proposed conditions,
- Analysis of alternatives including alternative models, flood risk reduction benefits, and no adverse impact analysis,
- A detailed cost estimate of each alternative,
- A cost-benefit analysis for each alternative using the TWDB BCA tools,
- Sealed technical memorandum summarizing the analysis and all findings and results including an analysis of potential permitting and environmental constraints.



Required Information for FMP

Data available to complete the analysis and meet TWDB standards for FMP status include an existing FEMA BLE level hydraulic model, 2018 USGS LIDAR elevation data, traffic counts, and other related info for development of the cost-benefit analysis. Coordination with Comal County will be required to obtain any information needed and communicate the results and recommendations associated with project.

Sponsor Outreach:

Comal County is supportive of Task 12 funds being used to study upgrade to the high-water notification system from "Alert-1" to "Alert-2" and to consider infrastructure improvements at River Road; however, the County is sensitive to the potential environmental constraints include established cypress trees near the crossing. Additional data needs as well as results and recommendations will be coordinated on an ongoing basis with Tom Hornseth, County Engineer for Comal County, as the project progresses.

Scope and Budget:

| Task | Estimated Cost | Estimated Time to Complete |
|---|-----------------|----------------------------|
| Task 1 – Date Collection/site visits | \$2,124 | 1 day |
| Task 2 – Update H&H modeling | \$22,533 | 15 days |
| Task 3 – Update preliminary design or alternatives analysis | \$13,029 | 8 days |
| Task 4 – Evaluate flood risk reduction benefits | \$3,514 | 2 days |
| Task 5 – Verify no negative impacts | \$3,514 | 2 days |
| Task 6 – Develop/update cost estimate | \$3,315 | 2 days |
| Task 7 – Complete cost-benefit analysis | \$5,969 | 4 days |
| Task 8 – Evaluate potential constraints | \$5,056 | 3 days |
| Task 9 – Document results (sealed technical memorandum) | \$5,518 | 3 days |
| Totals | \$64,572 | 40 days |

Note: If task costs/time is blank the task is not needed to complete the FME.

Recommendation:

- Proceed Do not Proceed Technical Committee Concurrence RFPG Approval

Prepared by: Daniel Harris

Date: 10/26/2022

**SCOPE AND BUDGET TO PERFORM FMEs
GUADALUPE REGIONAL FLOOD PLANNING GROUP**

| FME ID | Title | County | Sponsor |
|-----------|------------------------------|----------|-----------------|
| 111000132 | Nursery Road at Spring Creek | Victoria | Victoria County |

Study Objectives:

This study includes an analysis of the low water crossing at Nursery Road on Spring Creek in Victoria County and a recommendation for an improved structure that will be able to pass at least the 4% ACE (25-yr) event without overtopping. The existing structure consists of a single span bridge and currently passes only 50% ACE (2-yr) event. The best available hydrology and hydraulics models were developed as part of Phase 2 of the Guadalupe Interim Feasibility Study completed by the USACE and GBRA in 2015. These models will be used as the basis for this study and will be updated with current Atlas 14 rainfall data, current LIDAR upstream and downstream of the Nursery Road, and field survey data collected as part of this study. Alternatives to be considered will include replacement of the existing bridge structure with a new bridge structure or box culvert structure that will be able to pass the required flow without overtopping the roadway. Deliverables of this study will include the following:

- Updated hydrologic and hydraulic modeling of existing and proposed conditions,
- Analysis of alternatives including alternative models, flood risk reduction benefits, and no adverse impact analysis,
- A detailed cost estimate of each alternative,
- A cost-benefit analysis for each alternative using the TWDB BCA tools,
- Sealed technical memorandum summarizing the analysis and all findings and results including an analysis of potential permitting and environmental constraints.



Required Information for FMP

Data available to complete the analysis and meet TWDB standards for FMP status include existing hydrologic and hydraulic models as discussed above, 2018 USGS LIDAR elevation data, traffic counts and other related info for development of the cost-benefit analysis. Coordination with Victoria County will be

required to obtain any information needed and communicate the results and recommendations associated with project.

Sponsor Outreach:

Victoria County was contacted on October 5th, 2022 and is supportive of this low water crossing alternative and benefit-cost analysis. Existing models for Spring Creek have been previously provided by the GBRA. Additional data needs as well as results and recommendations will be coordinated on an ongoing basis with John Johnston, County Engineer for Victoria County, as the project progresses.

Scope and Budget:

| Task | Estimated Cost | Estimated Time to Complete |
|---|-----------------|----------------------------|
| Task 1 – Data Collection/site visits | \$4,032 | 1 day |
| Task 2 – Update H&H modeling | \$9,483 | 6 days |
| Task 3 – Update preliminary design or alternatives analysis | \$10,826 | 7 days |
| Task 4 – Evaluate flood risk reduction benefits | \$3,514 | 2 days |
| Task 5 – Verify no negative impacts | \$3,514 | 2 days |
| Task 6 – Develop/update cost estimate | \$3,315 | 2 days |
| Task 7 – Complete cost-benefit analysis | \$5,969 | 4 days |
| Task 8 – Evaluate potential constraints | \$3,514 | 2 days |
| Task 9 – Document results (sealed technical memorandum) | \$5,518 | 3 days |
| Totals | \$49,685 | 29 days |

Note: If task costs/time is blank the task is not needed to complete the FME.

Recommendation:

- Proceed Do not Proceed Technical Committee Concurrence RFPG Approval

Prepared by: Daniel Harris

Date: 10/26/2022

SCOPE AND BUDGET TO PERFORM FMEs
GUADALUPE REGIONAL FLOOD PLANNING GROUP

| FME ID | Title | County | Sponsor |
|-----------|------------------------------|----------|-----------------|
| 111000132 | Parsons Road at Spring Creek | Victoria | Victoria County |

Study Objectives:

This study includes an analysis of the low water crossing at Parsons Road on Spring Creek in Victoria County and a recommendation for an improved structure that will be able to pass the 4% ACE (25-yr) event without overtopping. The existing structure consists of a two-span bridge and currently passes only 20% ACE (5-yr) event. The best available hydrology and hydraulics models were developed as part of Phase 2 of the Guadalupe Interim Feasibility Study completed by the USACE and GBRA in 2015. These models will be used as the basis for this study and will be updated with current Atlas 14 rainfall data, current LIDAR upstream and downstream of the Parsons Road, and field survey data collected as part of this study. Alternatives to be considered will include replacement of the existing bridge structure with a new bridge structure or box culvert structure that will be able to pass the required flow without overtopping the roadway. Deliverables of this study will include the following:

- Updated hydrologic and hydraulic modeling of existing and proposed conditions,
- Analysis of alternatives including alternative models, flood risk reduction benefits, and no adverse impact analysis,
- A detailed cost estimate of each alternative,
- A cost-benefit analysis for each alternative using the TWDB BCA tools,
- Sealed technical memorandum summarizing the analysis and all findings and results including an analysis of potential permitting and environmental constraints.



Required Information for FMP

Data available to complete the analysis and meet TWDB standards for FMP status include existing hydrologic and hydraulic models as discussed above, 2018 USGS LIDAR elevation data, traffic counts and other related info for development of the cost-benefit analysis. Coordination with Victoria County will be required to obtain any information needed and communicate the results and recommendations associated with project.

Sponsor Outreach:

Victoria County was contacted on October 5th, 2022 and is supportive of this low water crossing alternative and benefit-cost analysis. Existing models for Spring Creek have been previously provided by the GBRA. Additional data needs as well as results and recommendations will be coordinated on an ongoing basis with John Johnston, County Engineer for Victoria County, as the project progresses.

Scope and Budget:

| Task | Estimated Cost | Estimated Time to Complete |
|---|-----------------|----------------------------|
| Task 1 – Data Collection/site visits | \$4,032 | 1 day |
| Task 2 – Update H&H modeling | \$9,483 | 6 days |
| Task 3 – Update preliminary design or alternatives analysis | \$10,826 | 7 days |
| Task 4 – Evaluate flood risk reduction benefits | \$3,514 | 2 days |
| Task 5 – Verify no negative impacts | \$3,514 | 2 days |
| Task 6 – Develop/update cost estimate | \$3,315 | 2 days |
| Task 7 – Complete cost-benefit analysis | \$5,969 | 4 days |
| Task 8 – Evaluate potential constraints | \$3,514 | 2 days |
| Task 9 – Document results (sealed technical memorandum) | \$5,518 | 3 days |
| Totals | \$49,685 | 29 days |

Note: If task costs/time is blank the task is not needed to complete the FME.

Recommendation:

- Proceed Do not Proceed Technical Committee Concurrence RFPG Approval

Prepared by: Daniel Harris

Date: 10/26/2022



Look Ahead

| Meeting | Milestone Goals |
|----------|--|
| December | December 7 Comment Response Log, Revised Chapter 6 and 7, Voting Items (FMXs, Recommendations) December 19 Issue Final Draft to RFPG December 30 Final RFPG Member comments due |
| January | January 4 Approve Final Plan for Submittal January 10 Regional Flood Plan due to TWDB |
| July | July 14 Amended Regional Flood Plan Due |

Agenda Item 10

Consider date and agenda items for next meeting

Wednesday, December 7th at 2pm – GBRA, Seguin

Wednesday, January 4th at 2pm – GBRA, Seguin

Wednesday, February 1st at 2pm – GBRA, Seguin

Wednesday, March 1st at 2pm – GBRA, Seguin

Agenda Item 11

Public General Comments

Public Comments limited to 3 minutes per speaker

Agenda Item 12

Adjourn