







### Flood Management Evaluations **Fact Sheet**

FME ID: 151000001

### **Brooks County Master Drainage Study**

### **FME Description**

Yes ✓ No 🗆

Develop Flood risk maps for the	county of B	Brooks and develop CIP	
Study Type  ✓ Flood risk modeling/mapping ✓ Flood mitigation study	)	<ul><li>✓ Alternative Analysis</li><li>□ Feasibility Assessments</li></ul>	☐ Flood preparedness studies
Study Area City/ Cities		Insert snip of Loc	cation Map here
County/ Counties Brooks			
HUC 8			
HUC 12			
Study Area (sq. mi.) 685.70			
Emergency Need Yes ✓ No □			
Known Flood Risk History of Flooding? Population at Risk Roadways flooded Critical Facilities Impacted Notes:	Yes □ N	No □ Frequency: # of structures inundated No □ Miles inundated? No □ Agricultural Land impacted	Yes □ No □
Study Costs Total Cost: Estimated year to start: Time to complete? Funding Dedicated?	\$250, Yes □ N	Entity with Oversight Included in a CIP or other plan?	Yes □ No ✓
Study identified as a	gap by I	Region 15 Regional Flood Pla	nning Group (RFPG)





### Flood Management Evaluations Fact Sheet

Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □		
	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

### **RFPG Recommended**





**Bayiew Action #6** 

FME ID: 151000002

### FME Description

Upgrade three roadwa caused by flooding an		footbridge ii	ncluding structural improvements	and stabilization to reduce damage
Study Type  ✓ Flood risk modeling ✓ Flood mitigation st			ernative Analysis asibility Assessments	☐ Flood preparedness studies
Study Area City/ Cities	Bayview		Insert snip of Lo	ocation Map here
County/ Counties	Cameron			
HUC 8	12110208			
HUC 12	121102080800,			
Study Area (sq. mi.)	121102080900 N/A			
Emergency Ne Yes ✓ No □	ed			
Known Flood R History of Flooding? Population at Risk Roadways flooded Critical Facilities Impa Notes:	Yes ✓		Frequency of flooding: # of structures inundated Miles inundated? Agricultural Land impacted	Yes □ No □
Study Costs Total Cost: Estimated year to star Time to complete? Funding Dedicated?	rt: Yes 🗆		Study Sponsor: Entity with Oversight Included in a Hazard Mitigation Action Plan or other plan? (Potential) Source of Funding	Bayview Bayview Yes ✓ No □ HMGP; USDA; Other Grants
Study identifie	d as a gap by	Region	n 15 Regional Flood Pla	anning Group (RFPG)





Flood Mitigation Evaluations Fact Sheet

Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
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	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

### **RFPG Recommended**





### Flood Mitigation Project Fact Sheet

### City of Brownsville Action #24

FME ID: 151000006

☐ Flood preparedness studies

### **FME Description**

Improve drainage and replace or upgrade gutters at City Plaza buildings.

### Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- Study Area

City/ Cities Brownsville

County/ Counties Cameron

HUC 8 12110208

HUC 12 121102080800,

121102080900

Study Area (sq. mi.) 0.1

### **Emergency Need**

Yes ✓ No 🗆

### Known Flood Risk

History of Flooding?

Population at Risk

Roadways flooded

Yes ✓ No □

Wiles inundated

Yes □ No □

Notes:

Frequency of flooding:

# of structures inundated

Miles inundated?

Agricultural Land impacted

Yes □ No □

Notes:

### **Study Costs**

Total Cost: \$19,800 Study Sponsor: Brownsville
Estimated year to start: Upon Funding Entity with Oversight Included in a Hazard Mitigation Action Plan or other plan?

Study Sponsor: Brownsville Brownsville Action Plan or other plan?

Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding Capital Improvement Funds

✓ Alternative Analysis

### Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes □ No 🗸

☐ Feasibility Assessments
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P SC Charles St. C
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Virgo by Mirkour & Regs Virgo Batternoses Prince Land Batternoses Prince Land Batternoses St.





Flood Mitigation Project Fact Sheet

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	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✔ No 🗆
Wa	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
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conditions floodplain

### **RFPG Recommended**





☐ Flood preparedness studies

Indian Lake Action #1

FME ID: 151000007

### **FME Description**

Elevate and harden S Resaca Shore Drive bridge to reduce risk of damages and maintaining critical access route.

✓ Alternative Analysis

### Study Type

☐ Flood risk modeling/mapping ✓ Flood mitigation study

### Study Area

City/ Cities Indian Lake County/ Counties Cameron

> HUC 8 12110208

HUC 12 121102080900

Study Area (sq. mi.)

### **Emergency Need**

Yes ✓ No□

### **Known Flood Risk**

History of Flooding? Frequency of flooding: Yes ✓ No □ Population at Risk # of structures inundated Roadways flooded Yes ✓ No 🗆 Miles inundated? Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □ Notes:

### Study Costs

**Total Cost:** \$92,400 Study Sponsor: **Indian Lakes** Entity with Oversight Estimated year to start: 2018 **Indian Lakes** Time to complete? 2020 Included in a Hazard Mitigation Yes ✓ No 🗆 Action Plan or other plan?

**Funding Dedicated?** Yes □ No ✓ (Potential) Source of Funding General Fund; HMGP

### Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)







Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes ✓ No □

	s the project missing sufficient data to assess whether the prop delines?	posed	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	lated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
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conditions floodplain

### **RFPG Recommended**





Indian Lake Action #12

### **FME Description**

Upgrade/Elevate Henderson Road bridge over Resaca to remove from potential floodway, reduce the risk of damages, and maintain critical access route.

### Study Type

- □ Flood risk modeling/mapping
- ✓ Flood mitigation study
- Study Area

City/ Cities Indian Lake

County/ Counties Cameron

> HUC 8 12110208

**HUC 12** 121102080900

Study Area (sq. mi.) 0.16

### **Emergency Need**

Yes ✓ No 🗆

### **Known Flood Risk**

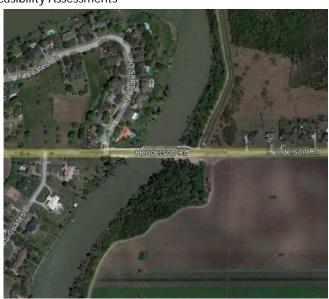
History of Flooding? Yes ✓ No □ Population at Risk Roadways flooded Yes ✓ No 🗆

Critical Facilities Impacted

Notes:

- ✓ Alternative Analysis
- ☐ Feasibility Assessments
- ☐ Flood preparedness studies

FME ID: 151000008



Frequency of flooding: # of structures inundated Miles inundated?

Agricultural Land impacted Yes □ No □

### **Study Costs**

**Total Cost:** \$184,800 Study Sponsor: **Indian Lakes** Estimated year to start: 2019 Entity with Oversight **Indian Lakes** Time to complete? Included in a Hazard Mitigation 2021 Yes ✓ No 🗆

Action Plan or other plan?

Yes □ No □

(Potential) Source of Funding **Funding Dedicated?** Yes □ No ✓ General Fund; HMGP

### Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Flood Mitigation Evaluations Fact Sheet

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Rel	ated Goals		
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	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

### **RFPG Recommended**





Indian Lake Action #17

FME ID: 151000009

### **FME Description**

Upgrade shoulders and provide turnouts along Henderson Road to support evacuation route.

### Study Type

- ☐ Flood risk modeling/mapping ✓ Flood mitigation study
- ✓ Alternative Analysis □ Feasibility Assessments
- ☐ Flood preparedness studies

### Study Area

City/ Cities Indian Lake

County/ Counties Cameron

> HUC 8 12110208

HUC 12 121102080900

Study Area (sq. mi.)



Yes □ No □

### **Emergency Need**

Yes ✓ No□

### **Known Flood Risk**

History of Flooding?	Yes ✓	No 🗆	Frequency of flooding:
Population at Risk			# of structures inundated
Roadways flooded	Yes ✓	No □	Miles inundated?
Critical Facilities Impacted	Yes □	No □	Agricultural Land impacted

Notes:

### **Study Costs**

Total Cost:	\$9,240	Study Sponsor:	Indian Lakes
Estimated year to start:	2019	Entity with Oversight	Indian Lakes
Time to complete?	2021	Included in a Hazard Mitigation	Yes ✓ No 🗆
		Action Plan or other plan?	

Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding General Fund; HMGP

### Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Flood Mitigation Evaluations Fact Sheet

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	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
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Rel	ated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
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	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
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	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

### **RFPG Recommended**





☐ Flood preparedness studies

### Indian Lake Action #18

FME ID: 151000010

### **FME Description**

Harden critical facilities, to include the Town Hall/Police Station, to reduce or eliminate wind, hail, and flood damage and ensure continuity of emergency services.

✓ Alternative Analysis

### Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- Study Area

City/ Cities Indian Lake

County/ Counties Cameron

HUC 8 12110208

HUC 12 121102080900

Study Area (sq. mi.) 0.50

### **Emergency Need**

Yes ✓ No 🗆

### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency of flooding:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted

Notes:

### **Study Costs**

Total Cost: \$27,720 Study Sponsor: Indian Lakes Estimated year to start: 2018 Entity with Oversight Indian Lakes Included in a Hazard Mitigation Yes  $\checkmark$  No  $\Box$ 

Action Plan or other plan?

Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding General Fund; HMGP

### Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes □ No ✓



Yes □ No □



Yes v□ No



Flood Mitigation Evaluations Fact Sheet

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Yes ✓ No □				
Was the project missing sufficient data to assess when guidelines?	her the proposed:	project has a negative effect, per TWDB	Yes ✓ No	0 🗆
Was the project recommended by the RFPG to be studied benefit cost ratio or the number of structures the project recommended by the RFPG to be studied by the RFPG to be studi			Yes ✓ No	0 🗆
Related Goals				
<ul> <li>Increase community access routes to critical facilial evacuation routes, during and after a flooding evacuation.</li> </ul>		Increase the # of entities that adopt higher minimum standards	r than NFIP-	-
Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR flow	tical $\square$	Develop and maintain an operational stor management plan	mwater asse	эt
☐ Increase the # of communities participating in the Flood Insurance Program		Increase the # of flood gauges (rainfall/str region	eam) in the	
<ul> <li>Decrease the average age of FEMA Flood Insurant Maps used to define SFHAs</li> </ul>	ce Rate $\ \square$	Increase the # of entities that have multi- CIP list	year drainag	je
<ul> <li>Increase the coverage of available flood hazard do completing studies with identified construction praddress flooding hazards</li> </ul>		Increase the # of entities that integrate Na Service and USGS Texas Water Science Ce flood warning system information into the capabilities to disseminate warnings	nter (TXWSC	
<ul> <li>Increase participation in the regional flood planni</li> <li>Provide regional detention that could be used for reuse applications or as part of a floodplain mana program</li> </ul>	water <	Increase use of nature-based flood risk re- Develop a regionally coordinated warning response program that can detect the floo provide timely warning of impending floor	and emerge od threat and	ency
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RFPG Recommended				





### Laguna Vista Action #10

FME ID: 151000012

### **FME Description**

Drainage Improvements: Harden and reinforce head wall along the Laguna Madre bay off Beach Boulevard.

### Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- ✓ Alternative Analysis□ Feasibility Assessments
- $\hfill \square$  Flood preparedness studies

### Study Area

City/ Cities Laguna Vista

County/ Counties Cameron

HUC 8 12110208

HUC 12 121102080800,

121102080900

Study Area (sq. mi.) 0.41



### **Emergency Need**

Yes ✓ No □

### **Known Flood Risk**

History of Flooding?	Yes ✓	No $\square$	Frequency of flooding:		
Population at Risk			# of structures inundated		
Roadways flooded	Yes ✓	No $\square$	Miles inundated?		
Critical Facilities Impacted	Yes 🗆	No □	Agricultural Land impacted	Yes □	No □
Notes:					

4024 000

### **Study Costs**

TOTAL COST:	\$924,000	Study sportsor:	Laguria vista
Estimated year to start:	2018	Entity with Oversight	Laguna Vista
Time to complete?	2020	Included in a Hazard Mitigation	Yes ✓ No 🗆
		Action Plan or other plan?	
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	HMGP; Local Funds; Other Grants;
			Drainage Fee

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Flood Mitigation Evaluations Fact Sheet

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	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

### **RFPG Recommended**





### Laguna Vista Action #11

FME ID: 151000013

### **FME Description**

Drainage Improvements: Upgrade 48" drainage pipe located at 1004 Beach Blvd to increase capacity and reduce risk of flood damages.

### Study Type

- □ Flood risk modeling/mapping
- ✓ Flood mitigation study

- ✓ Alternative Analysis ☐ Feasibility Assessments
- ☐ Flood preparedness studies

### Study Area

City/ Cities Laguna Vista County/ Counties Cameron

> HUC 8 12110208

**HUC 12** 121102080800,

121102080900

Study Area (sq. mi.) 0.01



### **Emergency Need**

Yes ✓ No 🗆

### **Known Flood Risk**

History of Flooding? Frequency of flooding: Yes ✓ No □ Population at Risk # of structures inundated Roadways flooded Yes ✓ No 🗆 Miles inundated? Yes □ No □ Agricultural Land impacted Critical Facilities Impacted Yes □ No □ Notes:

### **Study Costs**

**Total Cost:** \$92,400 Study Sponsor: Laguna Vista Estimated year to start: 2018 **Entity with Oversight** Laguna Vista Time to complete? 2020 Included in a Hazard Mitigation Yes ✓ No □ Action Plan or other plan?

**Funding Dedicated?** (Potential) Source of Funding HMGP; Local Funds; Other Grants; Yes □ No ✓ Drainage Fee

### Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Flood Mitigation Evaluations Fact Sheet

Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

	is the project missing sufficient data to assess whether the prop delines?	osec	I project has a negative effect, per TWDB Yes ✓ No □	]
	is the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			]
Rel	lated Goals			
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards	
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan	
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region	
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list	
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings	:r
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction project Develop a regionally coordinated warning and emergence response program that can detect the flood threat and provide timely warning of impending flood danger	
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the regior that can be utilized for future regional stormwater infrastructure	1
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association	
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System be encouraging Region 15 floodplain management program to incorporate dedicated drainage fees to implement	
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future	

conditions floodplain

### **RFPG Recommended**





FME ID: 151000014

### Laguna Vista Action #12

### **FME Description**

Drainage Improvements: Relocate and upgrade existing 36" drainage pipe located at 1026 Beach Blvd to increase capacity and reduce risk of flood damages.

### Study Type

- ☐ Flood risk modeling/mapping
- ✓ Flood mitigation study

County/ Counties

- ✓ Alternative Analysis□ Feasibility Assessments
- ☐ Flood preparedness studies

### Study Area

City/ Cities Laguna Vista

HUC 8 12110208

HUC 12 121102080800,

Cameron

121102080900

Study Area (sq. mi.) 0.01

### Benefit Blud

### **Emergency Need**

Yes ✓ No 🗆

### **Known Flood Risk**

History of Flooding?

Population at Risk

Roadways flooded

Yes ✓ No □ Frequency of flooding:

# of structures inundated

Miles inundated?

Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

### **Study Costs**

Total Cost: \$92,400 Study Sponsor: Laguna Vista Estimated year to start: 2018 Entity with Oversight Laguna Vista Time to complete? 2020 Included in a Hazard Mitigation Yes ✓ No □ Action Plan or other plan?

Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding HMGP; Local Funds; Other Grants; Drainage Fee

### Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Flood Mitigation Evaluations Fact Sheet

Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

	s the project missing sufficient data to assess whether the prop delines?	osec	I project has a negative effect, per TWDB	Yes ✓	No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			Yes ✓	No 🗆
Rel	ated Goals				
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher minimum standards	er than N	IFIP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stor management plan	mwater	asset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stregion	eam) in	the
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi- CIP list	year dra	inage
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate No. Service and USGS Texas Water Science Ce flood warning system information into the capabilities to disseminate warnings	nter (TX eir local	WSC)
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk re Develop a regionally coordinated warning response program that can detect the floo provide timely warning of impending floo	and emod threa	ergency t and
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned la that can be utilized for future regional sto infrastructure	nd in the	e region
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain mar increasing the # of them that are certified Floodplain Managers (CFM) with the Texa Management Association	as Certi	fied
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community F encouraging Region 15 floodplain manage to incorporate dedicated drainage fees to	ement pi implem	rograms ent
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate nonce penalties; and who regulate development conditions floodplain	•	

### **RFPG Recommended**





### Laguna Vista Action #19

FME ID: 151000015

### **FME Description**

Harden Town Hall with wind, hail, and flood mitigation measures to reduce damages and ensure continuity of services

### Study Type

- ☐ Flood risk modeling/mapping
- ✓ Flood mitigation study

- ✓ Alternative Analysis□ Feasibility Assessments
- ☐ Flood preparedness studies

### Study Area

City/ Cities Laguna Vista

County/ Counties Cameron

HUC 8 12110208

HUC 12 121102080800,

121102080900

Study Area (sq. mi.) 0.01

## Beach Blud Palmi Blvd

### **Emergency Need**

Yes ✓ No 🗆

### **Known Flood Risk**

History of Flooding?	Yes ✓	No □	Frequency of flooding:		
Population at Risk			# of structures inundated		
Roadways flooded	Yes ✓	No □	Miles inundated?		
Critical Facilities Impacted	Yes 🗆	No □	Agricultural Land impacted	Yes □	No □
Notes:					

### **Study Costs**

Total Cost:	\$18,480	Study Sponsor:	Laguna Vista
Estimated year to start:	2018	Entity with Oversight	Laguna Vista
Time to complete?	2020	Included in a Hazard Mitigation	Yes ✓ No 🗆
		Action Plan or other plan?	
Funding Dadicated?	V = N /	(Detential) Course of Funding	LIMCD, Local Funds, Other

Funding Dedicated? Yes ☐ No ✓ (Potential) Source of Funding HMGP; Local Funds; Other Grants; Drainage Fee

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Flood Mitigation Evaluations Fact Sheet

Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

	s the project missing sufficient data to assess whether the prop delines?	osec	I project has a negative effect, per TWDB	Yes ✓	No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			Yes ✓	No 🗆
Rel	ated Goals				
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher minimum standards	er than N	IFIP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stor management plan	mwater	asset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stregion	eam) in	the
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi- CIP list	year dra	inage
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate No. Service and USGS Texas Water Science Ce flood warning system information into the capabilities to disseminate warnings	nter (TX eir local	WSC)
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk re Develop a regionally coordinated warning response program that can detect the floo provide timely warning of impending floo	and emod threa	ergency t and
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned la that can be utilized for future regional sto infrastructure	nd in the	e region
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain mar increasing the # of them that are certified Floodplain Managers (CFM) with the Texa Management Association	as Certi	fied
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community F encouraging Region 15 floodplain manage to incorporate dedicated drainage fees to	ement pi implem	rograms ent
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate nonce penalties; and who regulate development conditions floodplain	•	

### **RFPG Recommended**





### Laguna Vista Action #3

FME ID: 151000017

### **FME Description**

Drainage improvements Basin "D": Install upgraded drainage system west side of State Highway 510 for 80 acre residential area. Current system is inadequate to carry storm water runoff.

### Study Type

- □ Flood risk modeling/mapping ✓ Flood mitigation study
- Study Area

City/ Cities Laguna Vista

County/ Counties Cameron

> HUC 8 12110208

**HUC 12** 121102080800,

121102080900

Study Area (sq. mi.)

### **Emergency Need**

Yes ✓ No 🗆

### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Population at Risk Roadways flooded Yes ✓ No 🗆

Critical Facilities Impacted

Notes:

### ✓ Alternative Analysis ☐ Feasibility Assessments

☐ Flood preparedness studies



Frequency of flooding: # of structures inundated Miles inundated?

Agricultural Land impacted Yes □ No □

### **Study Costs**

**Total Cost:** \$924,000 Study Sponsor: Laguna Vista Estimated year to start: 2018 **Entity with Oversight** Laguna Vista Time to complete? 2020 Included in a Hazard Mitigation Yes ✓ No □

Action Plan or other plan?

Yes □ No □

(Potential) Source of Funding HMGP; Local Funds; Other Grants; **Funding Dedicated?** Yes □ No ✓ Drainage Fee

### Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes ✓ No □

	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
Wa	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		·
Rel	ated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and
	program Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		provide timely warning of impending flood danger Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

### **RFPG Recommended**





### Laguna Vista Action #4

FME ID: 151000018

### **FME Description**

Drainage improvements Basin "E": Install upgraded drainage system off Saunders Street and State Highway 510 that drains acreage south of Fernandez Street and north of Morris Street.

### **Study Type**

- ☐ Flood risk modeling/mapping
- ✓ Flood mitigation study

- ✓ Alternative Analysis□ Feasibility Assessments
- $\hfill \square$  Flood preparedness studies

### Study Area

City/ Cities Laguna Vista

County/ Counties Cameron

HUC 8 12110208

HUC 12 121102080800,

121102080900

Study Area (sq. mi.) N/A

# It alians sy

### **Emergency Need**

Yes ✓ No 🗆

### **Known Flood Risk**

History of Flooding? Yes ✓ No □

Population at Risk

Roadways flooded Yes ✓ No □

Critical Facilities Impacted Yes □ No □

# of structures inundated
o 
Miles inundated?
Agricultural Land impacted

Agricultural Land impacted Yes □ No □

Frequency of flooding:

### **Study Costs**

Notes:

Total Cost: \$924,000 Study Sponsor: Laguna Vista Estimated year to start: 2018 Entity with Oversight Laguna Vista Time to complete? 2020 Included in a Hazard Mitigation Action Plan or other plan? Laguna Vista Action Plan or other plan?

Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding HMGP; Local Funds; Other Grants; Drainage Fee

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Flood Mitigation Evaluations Fact Sheet

Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

	s the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

### **RFPG Recommended**





### Laguna Vista Action #5

FME ID: 151000019

### **FME Description**

Drainage improvements Basin "F": Install drainage system at the most southwestern part of the Town limits, bounded by State Highway 100 and State Highway 510.

### Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- ✓ Alternative Analysis□ Feasibility Assessments
- $\hfill \square$  Flood preparedness studies

### Study Area

City/ Cities Laguna Vista

County/ Counties Cameron

HUC 8 12110208

HUC 12 121102080800,

121102080900

Study Area (sq. mi.) 0.18

### **Emergency Need**

Yes ✓ No 🗆

### Known Flood Risk

History of Flooding? Yes ✓ No □
Population at Risk
Roadways flooded Yes ✓ No □

Critical Facilities Impacted Yes  $\square$  No  $\square$ 

Notes:



Frequency of flooding: # of structures inundated Miles inundated?

Agricultural Land impacted Yes □ No □

### Study Costs

Total Cost: \$924,000 Study Sponsor: Laguna Vista Estimated year to start: 2018 Entity with Oversight Laguna Vista Time to complete? 2020 Included in a Hazard Mitigation Yes ✓ No □

Action Plan or other plan?

Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding HMGP; Local Funds; Other Grants; Drainage Fee

### Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





### Flood Mitigation Evaluations Fact Sheet

Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

	s the project missing sufficient data to assess whether the prop delines?	posed	d project has a negative effect, per TWDB Yes ✓	No 🗆
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			No 🗆
Rel	ated Goals			
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NF minimum standards	IP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater a management plan	sset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region	ne
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drain CIP list	ıage
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Wo Service and USGS Texas Water Science Center (TXW flood warning system information into their local capabilities to disseminate warnings	
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction purple Develop a regionally coordinated warning and emergeness program that can detect the flood threat approvide timely warning of impending flood danger	rgency
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the r that can be utilized for future regional stormwater infrastructure	region
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certific Floodplain Managers (CFM) with the Texas Floodpla Management Association	
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating Systencouraging Region 15 floodplain management pro to incorporate dedicated drainage fees to implement	grams
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the fut	

conditions floodplain

### **RFPG Recommended**





### Laguna Vista Action #6

FME ID: 151000020

### FME Description

Drainage improvements SH 100: Regrade the existing drainage ditch that parallels State Highway 100 to increase capacity and reduce risk of flooding.

### Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- ✓ Alternative Analysis□ Feasibility Assessments
- $\hfill\Box$  Flood preparedness studies

### Study Area

City/ Cities Laguna Vista
County/ Counties Cameron

HUC 8 12110208

HUC 12 121102080800,

121102080900

Study Area (sq. mi.) 13.5



### **Emergency Need**

Yes ✓ No 🗆

### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency of flooding:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

### **Study Costs**

Total Cost: \$369,600 Study Sponsor: Laguna Vista Estimated year to start: 2018 Entity with Oversight Laguna Vista Time to complete? 2020 Included in a Hazard Mitigation Action Plan or other plan? Laguna Vista Action Plan or other plan?

Funding Dedicated? Yes  $\ \square$  No  $\ \checkmark$  (Potential) Source of Funding HMGP; Local Funds; Other Grants;

Drainage Fee

### Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Flood Mitigation Evaluations Fact Sheet

Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

### **RFPG Recommended**





☐ Flood preparedness studies

### Laguna Vista Action #7

FME ID: 151000021

### **FME Description**

Drainage improvements SH 100: Regrade the existing drainage ditch that parallels State Highway 100 to increase capacity and reduce risk of flooding.

✓ Alternative Analysis

□ Feasibility Assessments

### Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- Study Area

City/ Cities Laguna Vista

County/ Counties Cameron

HUC 8 12110208

HUC 12 121102080800,

121102080900

Study Area (sq. mi.) 0.01

### **Emergency Need**

Yes ✓ No 🗆

### Known Flood Risk

Critical Facilities Impacted

History of Flooding? Yes ✓ No □

Population at Risk

Roadways flooded Yes ✓ No □

Notes:

Frequency of flooding: # of structures inundated Miles inundated?

Yes □ No □

Agricultural Land impacted Yes □ No □

### **Study Costs**

Total Cost: \$369,600 Study Sponsor: Laguna Vista Estimated year to start: 2018 Entity with Oversight Time to complete? 2020 Included in a Hazard Mitigation Yes ✓ No □

Action Plan or other plan?

Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding HMGP; Local Funds; Other Grants; Drainage Fee

### Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

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Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes ✓ No □

	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □		
Wa	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		· · · · · · · · · · · · · · · · · · ·		
Rel	ated Goals				
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards		
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan		
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region		
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list		
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings		
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and		
	program Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		provide timely warning of impending flood danger Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure		
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association		
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement		
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future		

conditions floodplain

### **RFPG Recommended**





### Laguna Vista Action #8

FME ID: 151000022

### **FME Description**

Drainage Improvements: Upgrade the drainage system on Holley Beach to increase capacity and reduce risk of flooding.

### Study Type

- ☐ Flood risk modeling/mapping
- ✓ Flood mitigation study

- ✓ Alternative Analysis□ Feasibility Assessments
- $\ \square$  Flood preparedness studies

### Study Area

City/ Cities Laguna Vista

County/ Counties Cameron

HUC 8 12110208

HUC 12 121102080800,

121102080900

Study Area (sq. mi.) 3.99



### Frequency of flooding: # of structures inundated

Miles inundated?
Agricultural Land impacted

### **Emergency Need**

Yes ✓ No 🗆

### **Known Flood Risk**

History of Flooding?	Yes ✓	No $\square$
Population at Risk		

Roadways flooded Yes ✓ No □ Critical Facilities Impacted Yes □ No □

Notes:

### **Study Costs**

Total Cost: \$369,600 Study Sponsor: Laguna Vista Estimated year to start: 2018 Entity with Oversight Time to complete? 2020 Included in a Hazard Mitigation Yes  $\checkmark$  No  $\Box$ 

Action Plan or other plan?

Funding Dedicated? Yes ☐ No ✓ (Potential) Source of Funding HMGP; Local Funds; Other Grants;

Drainage Fee

Yes □ No □

### Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)



Yes ✓ No 🗆



Flood Mitigation Evaluations Fact Sheet

Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

### **RFPG Recommended**





Laguna Vista Action #9

#### FME ID: 151000023

### **FME Description**

Drainage Improvements: Upgrade and harden drainage structure on Town-owed marina to increase capacity and reduce risk of damages.

### Study Type

- □ Flood risk modeling/mapping ✓ Flood mitigation study
- ✓ Alternative Analysis ☐ Feasibility Assessments
- ☐ Flood preparedness studies

## Study Area

City/ Cities Laguna Vista

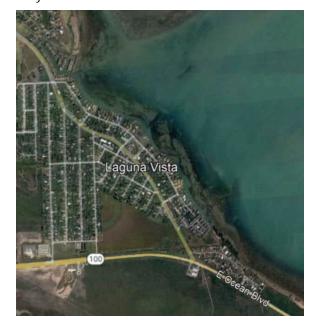
County/ Counties Cameron

> HUC 8 12110208

**HUC 12** 121102080800,

121102080900

Study Area (sq. mi.) 0.51



### **Emergency Need**

Yes ✓ No 🗆

### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Population at Risk Roadways flooded Yes ✓ No 🗆

Critical Facilities Impacted

Yes □ No □ Notes:

Frequency of flooding: # of structures inundated Miles inundated?

Agricultural Land impacted Yes □ No □

## **Study Costs**

**Total Cost:** \$554,400 Study Sponsor: Laguna Vista Estimated year to start: 2018 **Entity with Oversight** Laguna Vista Time to complete? 2020 Included in a Hazard Mitigation Yes ✓ No □

Action Plan or other plan? **Funding Dedicated?** (Potential) Source of Funding HMGP; Local Funds; Other Grants; Yes □ No ✓

Drainage Fee

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)



Yes ✓ No 🗆



Flood Mitigation Evaluations Fact Sheet

Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

	s the project missing sufficient data to assess whether the prop delines?	osec	r project has a negative effect, per TWDB γes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

### **RFPG Recommended**





Los Fresnos Action #13

#### **FME Description**

Upgrade culverts and install drainage improvements at various locations to increase capacity and reduce risk of flood damages. Purchase trailer mounted water trash pump to reduce or eliminate flooding. Drainage Improvement locations: Drainage Ditch South of Highway 100 causes flooding on East Fifth Street, East Sixth Street, East Seventh Street, East Eighth Street, East Ninth Street and East Tenth Street. South Nogal Street Causes Flooding on West First Street, West Second Street, West Third Street, Valle Alto Street & Bougainvillea Street, Jacqueline Street & North Canal Street Drain Pipe Collapse, Olmo Street from West Eighth Street to West Tenth Street, Holly Lane Drain Under Canal, Pasto Drive at California Road Drain Under Canal, and Resaca Escondido Drain Pipe Collapse. The following Resaca Crossings are Too Low: Henderson Road East Side, Henderson Road West Side, and Whipple Road West Side.

#### Study Type

- ☐ Flood risk modeling/mapping
- ✓ Flood mitigation study

### Study Area

City/ Cities Los Fresnos

County/ Counties Cameron

> HUC 8 12110208

HUC 12 121102080800,

121102080900

Study Area (sq. mi.)

#### **Emergency Need**

Yes ✓ No 🗆

#### Known Flood Risk

Roadways flooded

History of Flooding? No □ Population at Risk

Critical Facilities Impacted

Notes:

Yes ✓ No □

Yes □ No □

✓ Alternative Analysis

☐ Feasibility Assessments

☐ Flood preparedness studies

FME ID: 151000024



# of structures inundated Miles inundated?

Agricultural Land impacted Yes □ No □

#### **Study Costs**

**Total Cost:** \$1,848,000 Study Sponsor: Los Fresnos **Entity with Oversight** Estimated year to start: 2018 Los Fresnos Time to complete? 2020 Included in a Hazard Mitigation Yes ✓ No 🗆 Action Plan or other plan?

**Funding Dedicated?** (Potential) Source of Funding Yes □ No ✓ HMGP; General Funds, Drainage Fee





Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes	□ No ✓		
he		me	et the minimum requirements, per TWDB
guio Wa	s the project missing sufficient data to assess whether the prop delines? s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remove	for i	t to provide more project details, such as Yes ✓ No □
Rela	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain Increase the # of communities participating in the National Flood Insurance Program		Increase the # of entities that adopt higher than NFIP-minimum standards Develop and maintain an operational stormwater asset management plan Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement

#### RFPG Recommended

Reduce the # of structures that have been subject to repeated flooding events through property buyouts

Yes ✓ No

future FMEs and FMPs; incorporate noncompliance

conditions floodplain

penalties; and who regulate development in the future





☐ Flood preparedness studies

#### Port Isabel Action #19

FME ID: 151000027

### **FME Description**

Elevate and widen coastal roads as well as evacuation routes to reduce risk of flood damages and maintain emergency access.

✓ Alternative Analysis

### Study Type

- ☐ Flood risk modeling/mapping ✓ Flood mitigation study
- Study Area

City/ Cities Port Isabel County/ Counties Cameron

> HUC 8 12110208

HUC 12 121102081000,

121102081000

Study Area (sq. mi.)

### **Emergency Need**

Yes ✓ No 🗆

#### Known Flood Risk

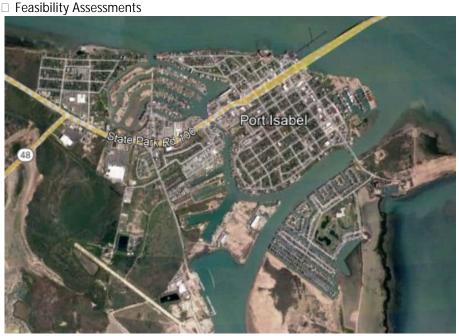
History of Flooding? Frequency of flooding: Yes ✓ No 🗆 Population at Risk # of structures inundated Roadways flooded Yes ✓ No 🗆 Miles inundated? Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □ Notes:

### Study Costs

**Total Cost:** \$554,400 Study Sponsor: Los Fresnos Estimated year to start: 2018 Entity with Oversight Los Fresnos 2020 Included in a Hazard Mitigation Time to complete? Yes ✓ No 🗆 Action Plan or other plan?

**Funding Dedicated?** Yes □ No ✓ (Potential) Source of Funding HMGP; General Funds

### Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Yes ✓ No 🗆



Flood Mitigation Evaluations Fact Sheet

Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

### **RFPG Recommended**





☐ Flood preparedness studies

Port Isabel Action #22

## **FME Description**

Build breakwater or similar shoreline protection for harbor.

### Study Type

- ☐ Flood risk modeling/mapping ✓ Flood mitigation study
- Study Area

City/ Cities Port Isabel

County/ Counties Cameron

> HUC 8 12110208

HUC 12 121102081000,

121102081000

Study Area (sq. mi.)

### **Emergency Need**

Yes ✓ No 🗆

### Known Flood Risk

History of Flooding? Yes ✓ No 🗆 Frequency of flooding: Population at Risk # of structures inundated Roadways flooded Yes ✓ No 🗆 Miles inundated? Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □ Notes:

### Study Costs

**Total Cost:** \$1,108,800 Study Sponsor: Los Fresnos Estimated year to start: 2018 Entity with Oversight Los Fresnos Included in a Hazard Mitigation Time to complete? 2020 Yes ✓ No 🗆 Action Plan or other plan?

**Funding Dedicated?** Yes □ No ✓ (Potential) Source of Funding HMGP: General Funds

### Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

✓ Alternative Analysis

Yes □ No ✓



FME ID: 151000028



Yes ✓ No 🗆



Flood Mitigation Evaluations Fact Sheet

Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Wa	s the project missing sufficient data to assess whether the proj	posed	d project has a negative effect, per TWDB Yes ✓ No □
	delines?		
	is the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Re	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program	<b>√</b>	Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### **RFPG Recommended**





Primera Action #2

FME ID: 151000029

### **FME Description**

Construct a large retention/detention pond in the northwest part of town to hold water during heavy rain events.

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☐ Flood risk modeling/mapping ✓ Flood mitigation study

□ Alternative Analysis □ Feasibility Assessments ☐ Flood preparedness studies

### Study Area

City/ Cities Primera County/ Counties Cameron HUC 8 12110208

> HUC 12 121102080700

Study Area (sq. mi.)

# **Emergency Need**

Yes ✓ No□

#### **Known Flood Risk**

History of Flooding? No □ Population at Risk

Roadways flooded Yes ✓ No 🗆 Critical Facilities Impacted Yes □ No □

Notes:

Frequency of flooding: # of structures inundated Miles inundated?

Agricultural Land impacted Yes □ No □

### Study Costs

**Total Cost:** \$92,400 Study Sponsor: Primera **Entity with Oversight** Estimated year to start: 2018 Primera Time to complete? 2020 Included in a Hazard Mitigation Yes ✓ No 🗆

Action Plan or other plan? Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding

Local Funds; HMGP; Cameron County

**Drainage District** 

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)



Yes ✓ No 🗆



Flood Mitigation Evaluations Fact Sheet

Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

	s the project missing sufficient data to assess whether the prop delines?	oseo	I project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
<b>√</b>	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
□ ✓	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
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	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### RFPG Recommended





South Padre Island #6

FME ID: 151000030

### **FME Description**

Upgrade undersized culverts throughout the Island to increase capacity and reduce flood risk.

### Study Type

- ☐ Flood risk modeling/mapping
- ✓ Flood mitigation study

- ✓ Alternative Analysis□ Feasibility Assessments
- $\ \square$  Flood preparedness studies

### Study Area

City/ Cities South Padre

County/ Counties Cameron

HUC 8 12110208

HUC 12 121102081000

Study Area (sq. mi.) 4.62

# **Emergency Need**

Yes ✓ No 🗆

### Known Flood Risk

History of Flooding? Yes ✓ No □
Population at Risk
Roadways flooded Yes ✓ No □

Roadways flooded Yes ✓ No □ Critical Facilities Impacted Yes □ No □

Notes:



# of structures inundated Miles inundated?

Agricultural Land impacted Yes  $\square$  No  $\square$ 

South Padre Island

### Study Costs

Total Cost: \$1,848,000 Study Sponsor: South Padre Island Estimated year to start: 2018 Entity with Oversight Time to complete? 2020 Included in a Hazard Mitigation Yes  $\checkmark$  No  $\Box$ 

Action Plan or other plan?

Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding HMGP; CDBG

### Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)



Yes ✓ No 🗆



Flood Mitigation Evaluations Fact Sheet

Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### RFPG Recommended





FME ID: 151000031

# **Dimmit County Master Drainage Study**

# **FME Description**

Yes ✓ No 🗆

Develop Flood risk maps for the	county of	Dimmit and	d develop CIP	
Study Type  ✓ Flood risk modeling/mapping ✓ Flood mitigation study	1		ernative Analysis asibility Assessments	☐ Flood preparedness studies
Study Area City/ Cities			Insert snip of Lo	ocation Map here
County/ Counties Dimmit				
HUC 8				
HUC 12				
Study Area (sq. mi.) 172.15				
Emergency Need Yes ✓ No □				
Known Flood Risk History of Flooding? Population at Risk Roadways flooded Critical Facilities Impacted Notes:	Yes □	No 🗆 No 🗆 No 🗆	Frequency: # of structures inundated Miles inundated? Agricultural Land impacted	Yes □ No □
Study Costs  Total Cost: Estimated year to start: Time to complete? Funding Dedicated?	\$250 Yes □	0,000 No <b>✓</b>	Study Sponsor: Entity with Oversight Included in a CIP or other plan? (Potential) Source of Funding	Yes □ No ✓
Study identified as a	gap by	Region	15 Regional Flood Pla	anning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □		
	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### RFPG Recommended





FME ID: 151000032

# **Edwards County Master Drainage Study**

# FME Description

Yes ✓ No 🗆

Develop Flood risk maps for the	county o	f Edwar	ds and develop CIP			
Study Type  ✓ Flood risk modeling/mapping  □ Flood mitigation study	)		☐ Alternative Analysis☐ Feasibility Assessments	☐ Flood preparedness studies		
Study Area City/ Cities			Insert snip of Lo	ocation Map here		
County/ Counties Edwards	•					
HUC 8						
HUC 12						
Study Area (sq. mi.) 138.80						
Emergency Need Yes ✓ No □						
Known Flood Risk						
History of Flooding? Population at Risk	Yes ✓	No □	Frequency: # of structures inundated			
Roadways flooded Critical Facilities Impacted Notes:	Yes □ Yes □	No □ No □	Miles inundated? Agricultural Land impacted	Yes □ No □		
Study Costs  Total Cost: Estimated year to start: Time to complete? Funding Dedicated?	\$25 Yes □	50,000 No ✓	Study Sponsor: Entity with Oversight Included in a CIP or other plan? (Potential) Source of Funding	Yes □ No ✓		
Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)						





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □		
	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### RFPG Recommended





FME ID: 151000033

### FM 491 and Mile 3 Study

### **FME Description**

Local Drainage Improvements- County Road 1771

### Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- Study Area

City/ Cities Mercedes

County/ Counties Hidalgo

HUC 8 12110207

**HUC 12** 

Study Area (sq. mi.) 0.81

### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding? Yes ✓ No □

Population at Risk

Roadways flooded Yes ✓ No □

Critical Facilities Impacted Yes □ No □

✓ Alternative Analysis□ Feasibility Assessments

☐ Flood preparedness studies



Frequency:
# of structures inundated
Miles inundated?

Agricultural Land impacted Yes ✓ No □

### **Study Costs**

Notes:

Total Cost: \$60,000 Study Sponsor: HCDD1 Estimated year to start: 2023 Entity with Oversight Time to complete? 2025 Included in a CIP or other plan? Yes  $\checkmark$  No  $\Box$  Funding Dedicated? Yes  $\Box$  No  $\checkmark$  (Potential) Source of Funding

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □		
	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### RFPG Recommended





☐ Flood preparedness studies

FME ID: 151000034

### **Pumps and Sumps Study**

### **FME Description**

Pump Station H & Sump

### **Study Type**

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- Study Area

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207

**HUC 12** 

Study Area (sq. mi.) 0.31

### **Emergency Need**

Yes ✓ No 🗆

### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted

### **Study Costs**

Notes:

Total Cost: \$217,500 Study Sponsor: HCDD1 Estimated year to start: 2023 Entity with Oversight HCDD1 Time to complete? 2025 Included in a CIP or other plan? Yes  $\checkmark$  No  $\Box$  Funding Dedicated? Yes  $\Box$  No  $\checkmark$  (Potential) Source of Funding

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes □ No ✓

✓	Alternative Analysis
	<b>Feasibility Assessments</b>
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Yes □ No □





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □				
	s the project missing sufficient data to assess whether the prop delines?	oseo	I project has a negative effect, per TWDB	Yes ✓	No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			Yes ✓	No □
Rel	ated Goals				
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt highe minimum standards	r than NI	FIP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational storr management plan	mwater a	asset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stre	eam) in t	he
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-y CIP list	<i>ı</i> ear draiı	nage
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate Na Service and USGS Texas Water Science Cer flood warning system information into the capabilities to disseminate warnings	nter (TXV	
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk red		-
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning response program that can detect the floo provide timely warning of impending floor	od threat	
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned lar that can be utilized for future regional stor infrastructure	nd in the	
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain man increasing the # of them that are certified Floodplain Managers (CFM) with the Texas Management Association	as Certif	ied
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community R encouraging Region 15 floodplain manage to incorporate dedicated drainage fees to	ment pro	ograms
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate nonco penalties; and who regulate development		

conditions floodplain

#### **RFPG Recommended**





FME ID: 151000035

### **Pumps and Sumps Study**

### **FME Description**

Pump Station I & Sump

### Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- ✓ Alternative Analysis□ Feasibility Assessments
- $\hfill \square$  Flood preparedness studies

### Study Area

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207

**HUC 12** 

Study Area (sq. mi.) 3.73



### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

### **Study Costs**

Total Cost: \$388,500 Study Sponsor: HCDD1 Estimated year to start: 2023 Entity with Oversight HCDD1 Time to complete? 2025 Included in a CIP or other plan? Yes  $\checkmark$  No  $\Box$  Funding Dedicated? Yes  $\Box$  No  $\checkmark$  (Potential) Source of Funding

## Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □				
	s the project missing sufficient data to assess whether the prop delines?	oseo	I project has a negative effect, per TWDB	Yes ✓	No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			Yes ✓	No □
Rel	ated Goals				
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt highe minimum standards	r than NI	FIP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational storr management plan	mwater a	asset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stre	eam) in t	he
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-y CIP list	<i>ı</i> ear draiı	nage
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate Na Service and USGS Texas Water Science Cer flood warning system information into the capabilities to disseminate warnings	nter (TXV	
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk red		-
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning response program that can detect the floo provide timely warning of impending floor	od threat	
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned lar that can be utilized for future regional stor infrastructure	nd in the	
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain man increasing the # of them that are certified Floodplain Managers (CFM) with the Texas Management Association	as Certif	ied
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community R encouraging Region 15 floodplain manage to incorporate dedicated drainage fees to	ment pro	ograms
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate nonco penalties; and who regulate development		

conditions floodplain

#### **RFPG Recommended**





FME ID: 151000036

### **Pumps and Sumps Study**

# **FME Description**

Pump Station J & Sump

### Study Type

- ☐ Flood risk modeling/mapping
- ✓ Flood mitigation study

- ✓ Alternative Analysis□ Feasibility Assessments
- ☐ Flood preparedness studies

### Study Area

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207

**HUC 12** 

Study Area (sq. mi.) 6.23



### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

### **Study Costs**

Total Cost: \$310,500 Study Sponsor: HCDD1 Estimated year to start: 2023 Entity with Oversight HCDD1 Time to complete? 2025 Included in a CIP or other plan? Yes  $\checkmark$  No  $\Box$  Funding Dedicated? Yes  $\Box$  No  $\checkmark$  (Potential) Source of Funding

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □				
	s the project missing sufficient data to assess whether the prop delines?	oseo	I project has a negative effect, per TWDB	Yes ✓	No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			Yes ✓	No □
Rel	ated Goals				
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt highe minimum standards	r than NI	FIP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational storr management plan	mwater a	asset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stre	eam) in t	he
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-y CIP list	<i>ı</i> ear draiı	nage
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate Na Service and USGS Texas Water Science Cer flood warning system information into the capabilities to disseminate warnings	nter (TXV	
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk red		-
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning response program that can detect the floo provide timely warning of impending floor	od threat	
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned lar that can be utilized for future regional stor infrastructure	nd in the	
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain man increasing the # of them that are certified Floodplain Managers (CFM) with the Texas Management Association	as Certif	ied
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community R encouraging Region 15 floodplain manage to incorporate dedicated drainage fees to	ment pro	ograms
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate nonco penalties; and who regulate development		

conditions floodplain

#### **RFPG Recommended**





☐ Flood preparedness studies

FME ID: 151000037

### **Pumps and Sumps Study**

### **FME Description**

Pump Station K

### Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- Study Area

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207

**HUC 12** 

Study Area (sq. mi.) 0.1

### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

### **Study Costs**

Total Cost: \$165,000 Study Sponsor: HCDD1 Estimated year to start: 2023 Entity with Oversight HCDD1 Time to complete? 2025 Included in a CIP or other plan? Yes  $\checkmark$  No  $\Box$  Funding Dedicated? Yes  $\Box$  No  $\checkmark$  (Potential) Source of Funding

### Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

✓ Alternative Analysis

□ Feasibility Assessments		
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Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □				
	s the project missing sufficient data to assess whether the prop delines?	oseo	I project has a negative effect, per TWDB	Yes ✓	No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			Yes ✓	No □
Rel	ated Goals				
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt highe minimum standards	r than NI	FIP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational storr management plan	mwater a	asset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stre	eam) in t	he
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-y CIP list	<i>ı</i> ear draiı	nage
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate Na Service and USGS Texas Water Science Cer flood warning system information into the capabilities to disseminate warnings	nter (TXV	
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk red		-
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning response program that can detect the floo provide timely warning of impending floor	od threat	
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned lar that can be utilized for future regional stor infrastructure	nd in the	
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain man increasing the # of them that are certified Floodplain Managers (CFM) with the Texas Management Association	as Certif	ied
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community R encouraging Region 15 floodplain manage to incorporate dedicated drainage fees to	ment pro	ograms
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate nonco penalties; and who regulate development		

conditions floodplain

#### **RFPG Recommended**





FME ID: 151000038

# **Pumps and Sumps Study**

### **FME Description**

Pump Station L

### **Study Type**

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- Study Area

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207

**HUC 12** 

Study Area (sq. mi.) 1.30

**Emergency Need** 

Yes ✓ No 🗆

- ✓ Alternative Analysis
- □ Feasibility Assessments
- $\ \square$  Flood preparedness studies



#### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

### **Study Costs**

Total Cost: \$165,000 \$Study Sponsor: HCDD1 Estimated year to start: 2023 Entity with Oversight HCDD1 Time to complete? 2025 Included in a CIP or other plan? Yes  $\checkmark$  No  $\Box$  Funding Dedicated? Yes  $\Box$  No  $\checkmark$  (Potential) Source of Funding

### Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □				
	s the project missing sufficient data to assess whether the prop delines?	oseo	I project has a negative effect, per TWDB	Yes ✓	No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			Yes ✓	No □
Rel	ated Goals				
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt highe minimum standards	r than NI	FIP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational storr management plan	mwater a	asset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stre	eam) in t	he
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-y CIP list	<i>ı</i> ear draiı	nage
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate Na Service and USGS Texas Water Science Cer flood warning system information into the capabilities to disseminate warnings	nter (TXV	
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk red		-
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning response program that can detect the floo provide timely warning of impending floor	od threat	
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned lar that can be utilized for future regional stor infrastructure	nd in the	
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain man increasing the # of them that are certified Floodplain Managers (CFM) with the Texas Management Association	as Certif	ied
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community R encouraging Region 15 floodplain manage to incorporate dedicated drainage fees to	ment pro	ograms
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate nonco penalties; and who regulate development		

conditions floodplain

#### **RFPG Recommended**





☐ Flood preparedness studies

FME ID: 151000039

Yes □ No □

### Lott Rd & Soderquist Study

### **FME Description**

Local Drainage Improvements- North of Lott Road and East of Soderquist Rd.

#### Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- Study Area

City/ Cities Donna

County/ Counties Hidalgo

HUC 8 12110207

**HUC 12** 

Study Area (sq. mi.) 0.27

### **Emergency Need**

Yes ✓ No 🗆

### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted

Notes:

### **Study Costs**

Total Cost: \$190,500 Study Sponsor: HCDD1 Estimated year to start: 2023 Entity with Oversight HCDD1 Time to complete? 2025 Included in a CIP or other plan? Yes  $\checkmark$  No  $\Box$  Funding Dedicated? Yes  $\Box$  No  $\checkmark$  (Potential) Source of Funding

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

✓ Alternative Analysis







Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

162	▼ INO □		
	s the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB Yes $\checkmark$ No $\Box$
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### RFPG Recommended





☐ Flood preparedness studies

FME ID: 151000040

### Mile 2 E & Expy 83 Study

### **FME Description**

Local Drainage Improvements- North of Interstate 2 and West of Mile 2 1/2

### Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- Study Area

City/ Cities Mercedes

County/ Counties Hidalgo

HUC 8 12110207

**HUC 12** 

Study Area (sq. mi.) 0.43

### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

### **Study Costs**

Total Cost: \$215,250 Study Sponsor: HCDD1 Estimated year to start: 2023 Entity with Oversight HCDD1 Time to complete? 2025 Included in a CIP or other plan? Yes  $\checkmark$  No  $\Box$  Funding Dedicated? Yes  $\Box$  No  $\checkmark$  (Potential) Source of Funding

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

✓ Alternative Analysis







Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

162	▼ INO □		
	s the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB Yes $\checkmark$ No $\Box$
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### RFPG Recommended





☐ Flood preparedness studies

151000041 FME ID:

### TX 88 & W Sugar Cane Dr Study

### **FME Description**

Channel Improvements- Ditch 17B2A1, Ditch 17B2A1 Detention West, Local Drainage Improvements (North of W Sugar Cane West of Ditch17B2A1), Ditch 17B2A1 Detention East, and Local Drainage Improvements (North of W Sugar Cane East of Ditch17B2A1)

✓ Alternative Analysis

### Study Type

- □ Flood risk modeling/mapping
- ✓ Flood mitigation study

### Study Area

City/ Cities Weslaco

County/ Counties Hidalgo

> HUC 8 12110207

**HUC 12** 

Study Area (sq. mi.)

### **Emergency Need**

Yes ✓ No 🗆

#### Known Flood Risk

History of Flooding? Yes ✓ No 🗆 Population at Risk

Roadways flooded Yes ✓ No 🗆

Critical Facilities Impacted

Notes:

Frequency: # of structures inundated

Miles inundated?

Agricultural Land impacted Yes □ No □

### Study Costs

**Total Cost:** \$375,900 Study Sponsor: HCDD1 Estimated year to start: **Entity with Oversight** HCDD1 2023 Time to complete? Included in a CIP or other plan? 2025 Yes ✓ No □ **Funding Dedicated?** (Potential) Source of Funding Yes □ No ✓

Yes □ No □

### Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

☐ Feasibility Assessments	
Mile 11 N Mile 11 N	
	The state of the s
Mile 10-M	





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	v No □				
	is the project missing sufficient data to assess whether the prop delines?	osec	I project has a negative effect, per TWDB	Yes ✓	No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			Yes ✓	No □
Rel	lated Goals				
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt highe minimum standards	r than NI	FIP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational storr management plan	mwater a	asset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stre	eam) in t	he
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-y CIP list	/ear draiı	nage
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate Na Service and USGS Texas Water Science Cer flood warning system information into the capabilities to disseminate warnings	nter (TXV	
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk red		-
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning response program that can detect the floo provide timely warning of impending floor	od threat	
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned lar that can be utilized for future regional stor infrastructure	nd in the	
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain man increasing the # of them that are certified Floodplain Managers (CFM) with the Texas Management Association	as Certif	ied
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community R encouraging Region 15 floodplain manage to incorporate dedicated drainage fees to	ment pro	ograms
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate nonco penalties; and who regulate development		

conditions floodplain

### **RFPG Recommended**





FME ID: 151000042

### Mile 11 N & Mile 6 W Study

### **FME Description**

Channel Improvements- Ditch 17B2A1A, Channel Improvements- Ditch 7T,7T1, Local Drainage Improvements- West of Ditch17B2A1A, and Ditch 17B2A1 Detention West

### Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- ✓ Alternative Analysis□ Feasibility Assessments
- $\hfill \square$  Flood preparedness studies

### Study Area

City/ Cities Weslaco
County/ Counties Hidalgo

HUC 8 12110207

**HUC 12** 

Study Area (sq. mi.)



# **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding? Yes  $\checkmark$  No  $\square$  Population at Risk

Critical Facilities Impacted Yes □ No □

Notes:

Frequency: # of structures inundated Miles inundated?

Agricultural Land impacted Yes □ No □

### **Study Costs**

Roadways flooded

Total Cost: \$570,300 Study Sponsor: HCDD1 Estimated year to start: 2023 Entity with Oversight Time to complete? 2025 Included in a CIP or other plan? Yes  $\checkmark$  No  $\Box$  Funding Dedicated? Yes  $\Box$  No  $\checkmark$  (Potential) Source of Funding

Yes ✓ No 🗆

### Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

162	▼ NO□						
	Was the project missing sufficient data to assess whether the proposed project has a negative effect, per TWDB Yes ✓ No □ guidelines?						
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov						
Rel	ated Goals						
	Increase community access routes to critical facilities,		Increase the # of entities that adopt higher than NFIP-				
	evacuation routes, during and after a flooding event Reduce the # of newly constructed vulnerable critical	П	minimum standards  Develop and maintain an operational stormwater asset				
	facilities within the existing and future 100-YR floodplain	Ш	management plan				
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region				
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list				
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings				
	Increase participation in the regional flood planning process Provide regional detention that could be used for water		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency				
	reuse applications or as part of a floodplain management program		response program that can detect the flood threat and provide timely warning of impending flood danger				
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure				
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association				
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement				
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain				

#### **RFPG Recommended**





151000043 FME ID:

# Clark Rd & Mile 1 E Study

# **FME Description**

Channel Improvements- Ditch 19,19B,19H,23; Local Drainage Improvements-Los Laureles; Local Detention-Los Laureles; Local Drainage Improvements-Clark road and Mile 1 Road; and Bypass Channel and Sump Area for Pump Station

# Study Type

- □ Flood risk modeling/mapping ✓ Flood mitigation study

# Study Area

City/ Cities Mercedes

County/ Counties Hidalgo

> HUC 8 12110207

**HUC 12** 

Study Area (sq. mi.)

# **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding? Population at Risk

Roadways flooded Critical Facilities Impacted Yes □ No □

Notes:

No □

Yes ✓ No 🗆

✓ Alternative Analysis

☐ Feasibility Assessments

☐ Flood preparedness studies



Frequency: # of structures inundated Miles inundated?

Agricultural Land impacted Yes □ No □

# **Study Costs**

**Total Cost:** \$1,526,550 Study Sponsor: HCDD1 **Entity with Oversight** Estimated year to start: 2023 HCDD1 Included in a CIP or other plan? Time to complete? 2025 Yes ✓ No □ **Funding Dedicated?** (Potential) Source of Funding Yes □ No ✓

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	v No □		
	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	is the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	lated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### **RFPG Recommended**





FME ID: 151000044

# International & E Mile 5 N Study

# **FME Description**

Channel Improvements just upstream of Ditch 35B; Culvert Improvements; Detention North of Llano Grande Lake Just West of 3 Mile Rd; 2-130,000 GPM Pumps; Channel Improvements Ditch 34, 34B, 34BExt; Regional Detention; Bypass channel from Ditch 34; and Culvert Improvements-Ditch 34 Passing International Blvd.

# **Study Type**

- ☐ Flood risk modeling/mapping
- ✓ Flood mitigation study

- ✓ Alternative Analysis□ Feasibility Assessments
- ☐ Flood preparedness studies

# Study Area

City/ Cities Weslaco

County/ Counties Hidalgo

HUC 8 12110207

**HUC 12** 

Study Area (sq. mi.) 1.71



# **Emergency Need**

Yes ✓ No 🗆

# Known Flood Risk

History of Flooding? Yes ✓ No □
Population at Risk
Roadways flooded Yes ✓ No □

Critical Facilities Impacted Yes  $\square$  No  $\square$ 

Notes:

Frequency: # of structures inundated Miles inundated?

Agricultural Land impacted Yes □ No □

# **Study Costs**

**Total Cost:** \$1,093,500 Study Sponsor: HCDD1 Entity with Oversight Estimated year to start: 2023 HCDD1 Time to complete? 2025 Included in a CIP or other plan? Yes ✓ No □ **Funding Dedicated?** (Potential) Source of Funding Yes □ No ✓

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes □ No 🗸





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

162	▼ INO □		
	s the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB Yes $\checkmark$ No $\Box$
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### **RFPG Recommended**





FME ID: 151000045

# S Alamo and Rancho Blanco Study

# **FME Description**

Local Drainage Improvements-Storm Drain and Detention North of Rancho Blanco and east of S. Alamo Road

# Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- Study Area

City/ Cities Alamo

County/ Counties Hidalgo

HUC 8 12110207

**HUC 12** 

Study Area (sq. mi.) 0.03

# **Emergency Need**

Yes ✓ No 🗆

# **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

## **Study Costs**

Total Cost: \$525,750 Study Sponsor: HCDD1 Estimated year to start: 2023 Entity with Oversight HCDD1 Time to complete? 2025 Included in a CIP or other plan? Yes  $\checkmark$  No  $\Box$  Funding Dedicated? Yes  $\Box$  No  $\checkmark$  (Potential) Source of Funding

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)







Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □				
	s the project missing sufficient data to assess whether the prop delines?	oseo	I project has a negative effect, per TWDB	Yes ✓	No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			Yes ✓	No □
Rel	ated Goals				
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher minimum standards	than Ni	FIP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational storn management plan	nwater a	asset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stre	am) in t	he
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-ye CIP list	ear drair	nage
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate Na Service and USGS Texas Water Science Cen flood warning system information into the capabilities to disseminate warnings	iter (TXV	
	Increase participation in the regional flood planning process Provide regional detention that could be used for water		Increase use of nature-based flood risk red Develop a regionally coordinated warning a	•	-
	reuse applications or as part of a floodplain management program		response program that can detect the flood provide timely warning of impending flood	d threat	
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned lanthat can be utilized for future regional stor infrastructure	d in the	region
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain mana- increasing the # of them that are certified a Floodplain Managers (CFM) with the Texas Management Association	as Certif	
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Ra encouraging Region 15 floodplain manager to incorporate dedicated drainage fees to i	ment pro	ograms
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncorpenalties; and who regulate development i		

conditions floodplain

#### **RFPG Recommended**





FME ID: 151000046

# FM 1423 and Main Grove Study

# **FME** Description

Local Drainage Improvements- Main Street, North Street

# Study Type

- ☐ Flood risk modeling/mapping
- ✓ Flood mitigation study

- ✓ Alternative Analysis □ Feasibility Assessments
- ☐ Flood preparedness studies

# Study Area

City/ Cities Donna

County/ Counties Hidalgo

> 12110207 HUC 8

**HUC 12** 

Study Area (sq. mi.)

# **Emergency Need**

Yes ✓ No 🗆

# Known Flood Risk

History of Flooding? Population at Risk

Roadways flooded

Critical Facilities Impacted Notes:

Yes ✓ No □

Yes ✓ No 🗆

Yes □ No □

Frequency: # of structures inundated Miles inundated?

Agricultural Land impacted Yes □ No □

# Study Costs

**Total Cost:** \$107,100 Study Sponsor: HCDD1 Estimated year to start: Entity with Oversight HCDD1 2023 Time to complete? 2025 Included in a CIP or other plan? Yes ✓ No 🗆

Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □				
	s the project missing sufficient data to assess whether the prop delines?	oseo	I project has a negative effect, per TWDB Ye	es 🗸	No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			es 🗸	No 🗆
Rel	ated Goals				
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher the minimum standards	ıan NF	FIP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormw management plan	ater a	isset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/strean region	n) in t	he
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year CIP list	r drair	nage
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate Natio Service and USGS Texas Water Science Center flood warning system information into their lo capabilities to disseminate warnings	r (TXV	
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduce Develop a regionally coordinated warning and response program that can detect the flood the provide timely warning of impending flood data.	d eme hreat	ergency
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in that can be utilized for future regional storms infrastructure	n the	
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain manage increasing the # of them that are certified as (Floodplain Managers (CFM) with the Texas Floodplain Association	Certifi	ied
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Ratir encouraging Region 15 floodplain manageme to incorporate dedicated drainage fees to imp	nt pro	ograms
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncomp penalties; and who regulate development in t	oliance	е

conditions floodplain

#### **RFPG Recommended**





FME ID: 151000047

# FM 1423 and Nolana Study

# **FME Description**

Local Drainage Improvements--Storm Drain and Detention South of Earling Road West of Val Verde Street

# **Study Type**

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- ✓ Alternative Analysis□ Feasibility Assessments
- $\hfill\Box$  Flood preparedness studies

# Study Area

City/ Cities Donna

County/ Counties Hidalgo

HUC 8 12110207

**HUC 12** 

Study Area (sq. mi.) 0.38



# **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding?	Yes ✓	No $\square$	Frequency:		
Population at Risk			# of structures inundated		
Roadways flooded	Yes ✓	No $\square$	Miles inundated?		
Critical Facilities Impacted	Yes □	No $\square$	Agricultural Land impacted	Yes □	No □
Notes:					

# **Study Costs**

Total Cost:	\$321,000	Study Sponsor:	HCDD1	
Estimated year to start:	2023	Entity with Oversight	HCDD1	
Time to complete?	2025	Included in a CIP or other plan?	Yes ✓	No $\square$
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding		

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

162	▼ INO □		
	s the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB Yes $\checkmark$ No $\Box$
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### **RFPG Recommended**





FME ID: 151000048

# **N** Tower Study

# **FME Description**

Local Drainage Improvements-Storm Drain North of Minnesota Road

## Study Type

- ☐ Flood risk modeling/mapping
- $\checkmark$  Flood mitigation study

- ✓ Alternative Analysis□ Feasibility Assessments
- $\hfill \square$  Flood preparedness studies

# Study Area

City/ Cities Alamo

County/ Counties Hidalgo

HUC 8 12110207

**HUC 12** 

Study Area (sq. mi.)



# **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

# **Study Costs**

Total Cost: \$201,000 Study Sponsor: HCDD1 Estimated year to start: 2023 Entity with Oversight HCDD1 Time to complete? 2025 Included in a CIP or other plan? Yes  $\checkmark$  No  $\Box$  Funding Dedicated? Yes  $\Box$  No  $\checkmark$  (Potential) Source of Funding

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

162	▼ INO □		
	s the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB Yes ✔ No 🗆
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### **RFPG Recommended**





□ Flood preparedness studies

FME ID: 151000049

# **Dillon and Roosevelt Study**

# **FME Description**

Local Drainage Improvements-Just North of E Roosevelt Rd

# Study Type

- ☐ Flood risk modeling/mapping
- ✓ Flood mitigation study

# Study Area

City/ Cities Donna

Hidalgo County/ Counties

> 12110207 HUC 8

**HUC 12** 

Study Area (sq. mi.) 0.68

# **Emergency Need**

Yes ✓ No □

# **Known Flood Risk**

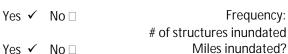
History of Flooding? Population at Risk Roadways flooded Critical Facilities Impacted

Notes:

✓ Alternative Analysis

□ Feasibility Assessments





Agricultural Land impacted Yes □ No □ Yes □ No □

# Study Costs

**Total Cost:** \$216,600 Study Sponsor: HCDD1 **Entity with Oversight** Estimated year to start: HCDD1 2023 Time to complete? 2025 Included in a CIP or other plan? Yes ✓ No 🗆 Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes □ No ✓

# Page 1 of 2





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □		
	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### **RFPG Recommended**





# Flood Management Evaluations

Fact Sheet

# **Canton and Dillon Study**

# **FME Description**

Local Drainage Improvements-Along Canton Road and adjacent neighborhoods

# Study Type

- ☐ Flood risk modeling/mapping ✓ Flood mitigation study
- ✓ Alternative Analysis ☐ Feasibility Assessments
- ☐ Flood preparedness studies

# Study Area

City/ Cities Donna

County/ Counties Hidalgo

> 12110207 HUC 8

**HUC 12** 

Study Area (sq. mi.)



FME ID:

151000050

# **Emergency Need**

Yes ✓ No 🗆

#### Known Flood Risk

History of Flooding? Frequency: Yes ✓ No □ Population at Risk # of structures inundated Roadways flooded Miles inundated? Yes ✓ No 🗆

Critical Facilities Impacted Agricultural Land impacted Yes □ No □ Yes □ No □

Notes:

# Study Costs

**Total Cost:** \$454,050 Study Sponsor: HCDD1 Estimated year to start: Entity with Oversight HCDD1 2023 Time to complete? 2025 Included in a CIP or other plan? Yes ✓ No 🗆

Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

162	▼ INO □		
	s the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB Yes $\checkmark$ No $\Box$
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### **RFPG Recommended**





FME ID: 151000051

# FM 1925 and Mile 4 Study

# **FME Description**

Local Drainage Improvements-Along Bernal Court

# Study Type

- $\hfill \square$  Flood risk modeling/mapping
- ✓ Flood mitigation study

- ✓ Alternative Analysis□ Feasibility Assessments
- $\hfill \square$  Flood preparedness studies

# Study Area

City/ Cities Donna

County/ Counties Hidalgo

HUC 8 12110207

**HUC 12** 

Study Area (sq. mi.) 0.16

# Emergency Need

Yes ✓ No 🗆

# Mutabana G. Beuse E. Monte Chate Rel

#### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

## **Study Costs**

Total Cost: \$143,550 Study Sponsor: HCDD1 Estimated year to start: 2023 Entity with Oversight Time to complete? 2025 Included in a CIP or other plan? Yes  $\checkmark$  No  $\Box$  Funding Dedicated? Yes  $\Box$  No  $\checkmark$  (Potential) Source of Funding

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □		
	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### RFPG Recommended





FME ID: 151000052

# **Pumps and Sumps Study**

# **FME Description**

Pump Station A & Sump

# Study Type

- ☐ Flood risk modeling/mapping ✓Flood mitigation study
- ✓ Alternative Analysis□ Feasibility Assessments
- $\ \square$  Flood preparedness studies

# Study Area

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207

**HUC 12** 

Study Area (sq. mi.) 0.1



# **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

# **Study Costs**

Total Cost: \$213,000 Study Sponsor: HCDD1 Estimated year to start: 2023 Entity with Oversight HCDD1 Time to complete? 2025 Included in a CIP or other plan? Yes  $\checkmark$  No  $\Box$  Funding Dedicated? Yes  $\Box$  No  $\checkmark$  (Potential) Source of Funding

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □				
	s the project missing sufficient data to assess whether the prop delines?	oseo	I project has a negative effect, per TWDB	Yes ✓	No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			Yes ✓	No 🗆
Rel	ated Goals				
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher minimum standards	r than NI	-IP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational storm management plan	nwater a	asset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stre	eam) in t	he
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-y CIP list	ear draiı	nage
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate Na Service and USGS Texas Water Science Cer flood warning system information into the capabilities to disseminate warnings	nter (TXV	
	Increase participation in the regional flood planning process Provide regional detention that could be used for water		Increase use of nature-based flood risk red Develop a regionally coordinated warning		-
	reuse applications or as part of a floodplain management program		response program that can detect the floor provide timely warning of impending flood	d threat	
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned lan that can be utilized for future regional stor infrastructure	d in the	region
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain mana increasing the # of them that are certified a Floodplain Managers (CFM) with the Texas Management Association	as Certif	ied
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Ra encouraging Region 15 floodplain manager to incorporate dedicated drainage fees to i	ment pro	ograms
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncorpenalties; and who regulate development		

conditions floodplain

#### **RFPG Recommended**





FME ID: 151000053

# **Pumps and Sumps Study**

# **FME Description**

Pump Station B & Sump

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- ✓ Flood risk modeling/mapping
- ✓ Flood mitigation study

- ✓ Alternative Analysis□ Feasibility Assessments
- $\hfill \square$  Flood preparedness studies

# Study Area

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207

**HUC 12** 

Study Area (sq. mi.)

Insert snip of Location Map here

# **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding? Yes ✓No □ Frequency:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes  $\square$  No  $\square$  Agricultural Land impacted Yes  $\square$  No  $\square$ 

Notes:

## **Study Costs**

Total Cost: \$244,500 Study Sponsor: HCDD1 Estimated year to start: 2023 Entity with Oversight HCDD1 Time to complete? 2025 Included in a CIP or other plan? Yes  $\checkmark$  No  $\Box$  Funding Dedicated? Yes  $\Box$  No  $\checkmark$  (Potential) Source of Funding

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

162	▼ INO □		
	s the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB Yes ✔ No 🗆
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
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	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
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	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### RFPG Recommended





FME ID: 151000055

# **Pumps and Sumps Study**

# **FME Description**

Pump Station D

# Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- ✓ Alternative Analysis□ Feasibility Assessments
- $\hfill \square$  Flood preparedness studies

# Study Area

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207

**HUC 12** 

Study Area (sq. mi.) 4.67

# **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding? Yes ✓ No □

Population at Risk

Roadways flooded Yes ✓ No □

Critical Facilities Impacted Yes  $\square$  No  $\square$ 

Notes:



Frequency: # of structures inundated Miles inundated?

Agricultural Land impacted Yes  $\square$  No  $\square$ 

# Study Costs

Total Cost: \$165,000 Study Sponsor: HCDD1 Estimated year to start: 2023 Entity with Oversight HCDD1 Time to complete? 2025 Included in a CIP or other plan? Yes  $\checkmark$  No  $\Box$  Funding Dedicated? Yes  $\Box$  No  $\checkmark$  (Potential) Source of Funding

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □				
	s the project missing sufficient data to assess whether the prop delines?	oseo	I project has a negative effect, per TWDB	Yes ✓	No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			Yes ✓	No 🗆
Rel	ated Goals				
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt highe minimum standards	r than NI	FIP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational storr management plan	mwater a	asset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stre	eam) in t	he
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-y CIP list	<i>ı</i> ear draiı	nage
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate Na Service and USGS Texas Water Science Cer flood warning system information into the capabilities to disseminate warnings	nter (TXV	
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk red		-
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning response program that can detect the floo provide timely warning of impending floor	od threat	
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned lar that can be utilized for future regional stor infrastructure	nd in the	
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain man increasing the # of them that are certified Floodplain Managers (CFM) with the Texas Management Association	as Certif	ied
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community R encouraging Region 15 floodplain manage to incorporate dedicated drainage fees to	ment pro	ograms
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate nonco penalties; and who regulate development		

conditions floodplain

#### **RFPG Recommended**





□ Flood preparedness studies

FME ID: 151000056

# **Pumps and Sumps Study**

# **FME Description**

Pump Station E & Sump

# **Study Type**

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- Study Area

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207

**HUC 12** 

Study Area (sq. mi.) 3.45

# **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

# Study Costs

Total Cost: \$124,500 Study Sponsor: HCDD1 Estimated year to start: 2023 Entity with Oversight HCDD1 Time to complete? 2025 Included in a CIP or other plan? Yes  $\checkmark$  No  $\Box$  Funding Dedicated? Yes  $\Box$  No  $\checkmark$  (Potential) Source of Funding

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

✓ Alternative Analysis

Feasi	bility Assessmen	ts		
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Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □				
	s the project missing sufficient data to assess whether the prop delines?	oseo	I project has a negative effect, per TWDB	Yes ✓	No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			Yes ✓	No 🗆
Rel	ated Goals				
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt highe minimum standards	r than NI	FIP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational storr management plan	mwater a	asset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stre	eam) in t	he
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-y CIP list	<i>ı</i> ear draiı	nage
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate Na Service and USGS Texas Water Science Cer flood warning system information into the capabilities to disseminate warnings	nter (TXV	
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk red		-
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning response program that can detect the floo provide timely warning of impending floor	od threat	
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned lar that can be utilized for future regional stor infrastructure	nd in the	
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain man increasing the # of them that are certified Floodplain Managers (CFM) with the Texas Management Association	as Certif	ied
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community R encouraging Region 15 floodplain manage to incorporate dedicated drainage fees to	ment pro	ograms
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate nonco penalties; and who regulate development		

conditions floodplain

#### **RFPG Recommended**





☐ Flood preparedness studies

FME ID: 151000057

# **Pumps and Sumps Study**

# **FME Description**

Pump Station F & Sump

# Study Type

☐ Flood risk modeling/mapping✓ Flood mitigation study

# Study Area

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207

**HUC 12** 

Study Area (sq. mi.) 12.4

# **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

# Study Costs

Total Cost: \$480,000 Study Sponsor: HCDD1 Estimated year to start: 2023 Entity with Oversight HCDD1 Time to complete? 2025 Included in a CIP or other plan? Yes  $\checkmark$  No  $\Box$  Funding Dedicated? Yes  $\Box$  No  $\checkmark$  (Potential) Source of Funding

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

✓ Alternative Analysis

Feasib	ility Assessmen	ts		_	V60900
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Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □				
	s the project missing sufficient data to assess whether the prop delines?	oseo	I project has a negative effect, per TWDB	Yes ✓	No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			Yes ✓	No 🗆
Rel	ated Goals				
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt highe minimum standards	r than NI	FIP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational storr management plan	mwater a	asset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stre	eam) in t	he
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-y CIP list	<i>ı</i> ear draiı	nage
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate Na Service and USGS Texas Water Science Cer flood warning system information into the capabilities to disseminate warnings	nter (TXV	
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk red		-
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning response program that can detect the floo provide timely warning of impending floor	od threat	
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned lar that can be utilized for future regional stor infrastructure	nd in the	
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain man increasing the # of them that are certified Floodplain Managers (CFM) with the Texas Management Association	as Certif	ied
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community R encouraging Region 15 floodplain manage to incorporate dedicated drainage fees to	ment pro	ograms
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate nonco penalties; and who regulate development		

conditions floodplain

#### **RFPG Recommended**





□ Flood preparedness studies

FME ID: 151000058

# **Pumps and Sumps Study**

# **FME Description**

Pump Station G & Sump

# Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- Study Area

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207

**HUC 12** 

Study Area (sq. mi.) 2.71

# **Emergency Need**

Yes ✓ No 🗆

# **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

# **Study Costs**

Total Cost: \$271,500 Study Sponsor: HCDD1 Estimated year to start: 2023 Entity with Oversight HCDD1 Time to complete? 2025 Included in a CIP or other plan? Yes  $\checkmark$  No  $\Box$  Funding Dedicated? Yes  $\Box$  No  $\checkmark$  (Potential) Source of Funding

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

	Feasibility Assessments
✓	Alternative Analysis







Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □				
	s the project missing sufficient data to assess whether the prop delines?	oseo	I project has a negative effect, per TWDB	Yes ✓	No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			Yes ✓	No 🗆
Rel	ated Goals				
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt highe minimum standards	r than NI	FIP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational storr management plan	mwater a	asset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stre	eam) in t	he
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-y CIP list	<i>ı</i> ear draiı	nage
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate Na Service and USGS Texas Water Science Cer flood warning system information into the capabilities to disseminate warnings	nter (TXV	
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk red		-
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning response program that can detect the floo provide timely warning of impending floor	od threat	
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned lar that can be utilized for future regional stor infrastructure	nd in the	
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain man increasing the # of them that are certified Floodplain Managers (CFM) with the Texas Management Association	as Certif	ied
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community R encouraging Region 15 floodplain manage to incorporate dedicated drainage fees to	ment pro	ograms
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate nonco penalties; and who regulate development		

conditions floodplain

#### **RFPG Recommended**





FME ID: 151000059

# **Sullivan City Master Drainage Study**

# **FME Description**

Develop Flood risk ma	aps for the city of Su	ıllivan Cit	y and develop CIP	
Study Type  ✓ Flood risk modeling ✓ Flood mitigation st			Alternative Analysis Feasibility Assessments	☐ Flood preparedness studies
Study Area City/ Cities County/ Counties HUC 8 HUC 12 Study Area (sq. mi.)	Sullivan City Hidalgo 12110208		Insert snip of Lo	ocation Map here
Emergency Ne Yes ✓ No □	ed			
Known Flood R History of Flooding? Population at Risk Roadways flooded Critical Facilities Impa Notes:	Yes ✓ Yes □	No 🗆 No 🗆	Frequency: # of structures inundated Miles inundated? Agricultural Land impacted	Yes □ No □
Study Costs  Total Cost: Estimated year to star Time to complete? Funding Dedicated?		50,000 No <b>✓</b>	Study Sponsor: Entity with Oversight Included in a CIP or other plan? (Potential) Source of Funding	Yes □ No ✓

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes ✓ No□





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	s ✓ No □				
	is the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB	Yes ✓	No 🗆
	is the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			Yes ✓	No 🗆
Rel	lated Goals				
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher minimum standards	er than Ni	FIP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stor management plan	mwater a	asset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/str	eam) in t	the
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi- CIP list	year draiı	nage
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate Na Service and USGS Texas Water Science Ce flood warning system information into the capabilities to disseminate warnings	nter (TXV	
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk re	duction p	orojects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning response program that can detect the floo provide timely warning of impending floo	od threat	and
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned latthat can be utilized for future regional sto infrastructure	nd in the	region
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain mar increasing the # of them that are certified Floodplain Managers (CFM) with the Texa Management Association	l as Certif	ied
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Fencouraging Region 15 floodplain manage to incorporate dedicated drainage fees to	ement pro	ograms
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate nonco penalties; and who regulate development	omplianc	е

conditions floodplain

#### **RFPG Recommended**





# Flood Mitigation Evaluations Fact Sheet

# Alton MDP - West Mile 5 Road and Louisiana Street Alternative 2

FME ID: 151000060

#### **FME Description**

Alternative 2 is designed to remove structures from the 10-year floodplain. Approximately 35 acre-feet of volume is proposed to be excavated. construction consists of 1,940 LF of 36-inch diameter pipe sloped at 0.2% along Louisiana, Kentucky, and Trosper Road out falling directly into the retention pond, 3 headwalls and approximately 9 inlets. Additional inlets and smaller pipe may be needed to catch low lying areas that pond between the houses or regrading with swales to take runoff to the street.

#### Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- Study Area

City/ Cities Alton

County/ Counties Hidalgo

HUC 8 12110207,

12110208

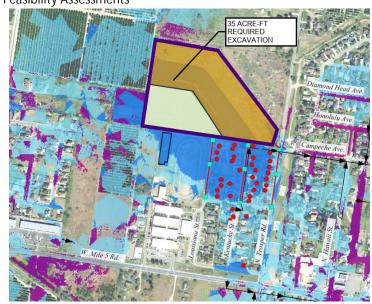
HUC 12 121102080200,

121102080300

Study Area (sq. mi.) 0.1

- ✓ Alternative Analysis
- □ Feasibility Assessments

□ Flood preparedness studies



#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding?	Yes ✓	No □	Frequency of flooding:		
Population at Risk			# of structures inundated		
Roadways flooded	Yes ✓	No $\square$	Miles inundated?		
Critical Facilities Impacted	Yes 🗆	No $\square$	Agricultural Land impacted	Yes □	No $\square$

Notes:

# **Study Costs**

Total Cost:	\$322,898	Study Sponsor:	City of Alton
Estimated year to start:	2023	Entity with Oversight	City of Alton
Time to complete?	2025	Included in a Hazard Mitigation	Yes ✓ No 🗆
		Action Plan or other plan?	
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	FIF, local





## Flood Mitigation Evaluations **Fact Sheet**

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG) Yes □ No ✓

the		me	et the minimum requirements, per TWDB
	s the project missing sufficient data to assess whether the prop delines?	osec	I project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rela	ated Goals		
$\checkmark$	Increase community access routes to critical facilities,		Increase the # of entities that adopt higher than NFIP-
	evacuation routes, during and after a flooding event		minimum standards
	Reduce the # of newly constructed vulnerable critical		Develop and maintain an operational stormwater asset
	facilities within the existing and future 100-YR floodplain		management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
✓	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs

#### RFPG Recommended

routes, and shelter locations

Reduce the # of structures that have been subject to

repeated flooding events through property buyouts

Yes ✓ No

to incorporate dedicated drainage fees to implement

penalties; and who regulate development in the future

future FMEs and FMPs; incorporate noncompliance

conditions floodplain





#### Flood Mitigation Evaluations **Fact Sheet**

# Alton MDP - North Inspiration Road and West St. Jude Avenue Alternative 2

FME ID: 151000062

#### **FME Description**

Alternative 2, is designed to remove structures from the 25-year floodplain and more frequent storms. This alternative consists of upsizing the storm drain under West St Jude Avenue. The trunk line will consist of 1,900 LF of a single 7' X 5' reinforced concrete box sloped at 0.5% from the area just west of the neighborhood on W. St. Jude Avenue to the West Main Drain Channel, downstream (north) of the existing 10' X 7' box culvert.

#### Study Type

- ☐ Flood risk modeling/mapping ✓ Flood mitigation study
- Study Area

City/ Cities Alton

County/ Counties Hidalgo

> HUC 8 12110207,

> > 12110210

HUC 12 121102080200,

121102080300

Study Area (sq. mi.) 0.16

# **Emergency Need**

Yes ✓ No 🗆

#### Known Flood Risk

History of Flooding? Yes Population at Risk

Roadways flooded Yes ✓ No 🗆 Yes □ No □

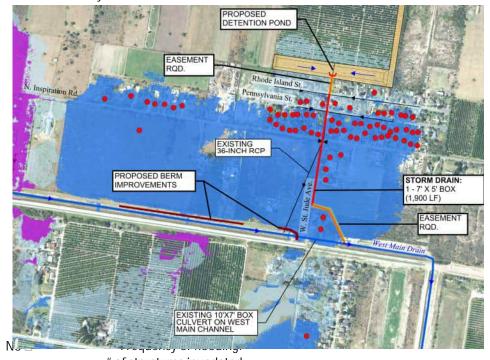
Critical Facilities Impacted

Notes:

#### ✓ Alternative Analysis

□ Feasibility Assessments

☐ Flood preparedness studies



FIF, local

#### # of structures inundated Miles inundated?

Agricultural Land impacted Yes □ No □

## Study Costs

**Funding Dedicated?** 

**Total Cost:** \$422,690 Study Sponsor: City of Alton Estimated year to start: 2023 Entity with Oversight City of Alton Time to complete? Included in a Hazard Mitigation 2025 Yes ✓ No □

Action Plan or other plan? (Potential) Source of Funding Yes □ No ✓

Page 1 of 2





Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes □ No ✓	
Study identified because project could not be income the Region 15 Regional Flood Plan because it did guidance for Regional Flood Planning or the provided Yes ✓ No□	I meet the minimum requirements, per TWDB
Was the project missing sufficient data to assess whether the proguidelines?	posed project has a negative effect, per TWDB Yes $\checkmark$ No $\Box$
Was the project recommended by the RFPG to be studied in orde a benefit cost ratio or the number of structures the project removes	·
Related Goals	
<ul> <li>✓ Increase community access routes to critical facilities, evacuation routes, during and after a flooding event</li> <li>□ Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain</li> </ul>	<ul> <li>Increase the # of entities that adopt higher than NFIP-minimum standards</li> <li>Develop and maintain an operational stormwater asset management plan</li> </ul>
<ul> <li>Increase the # of communities participating in the National Flood Insurance Program</li> </ul>	<ul> <li>Increase the # of flood gauges (rainfall/stream) in the region</li> </ul>
<ul> <li>Decrease the average age of FEMA Flood Insurance Rate</li> <li>Maps used to define SFHAs</li> </ul>	☐ Increase the # of entities that have multi-year drainage CIP list
<ul> <li>Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards</li> </ul>	<ul> <li>Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings</li> </ul>
<ul> <li>Increase participation in the regional flood planning process</li> <li>Provide regional detention that could be used for water reuse applications or as part of a floodplain management program</li> </ul>	<ul> <li>Increase use of nature-based flood risk reduction projects</li> <li>Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger</li> </ul>
<ul> <li>Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use</li> </ul>	<ul> <li>Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure</li> </ul>
<ul> <li>Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website</li> </ul>	<ul> <li>Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association</li> </ul>
<ul> <li>Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations</li> </ul>	<ul> <li>Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement</li> </ul>
☐ Reduce the # of structures that have been subject to	future FMEs and FMPs; incorporate noncompliance

#### RFPG Recommended

repeated flooding events through property buyouts

Yes ✓ No

penalties; and who regulate development in the future

conditions floodplain





# Alton MDP - West Mile 5 and South Glasscock Road Alternative 3

FME ID: 151000063

#### **FME Description**

Alternative 3 is simply the buyout and removal of 23 properties on the north side of Buchanan from the 10-year floodplain. Once structures are removed, the vacant land can be excavated and used as a park/regional retention pond.

#### Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- Study Area

City/ Cities Alton

County/ Counties Hidalgo

HUC 8 12110207,

12110213

HUC 12 121102080200.

121102080300

Study Area (sq. mi.) 0.23

- ✓ Alternative Analysis
- □ Feasibility Assessments
- ☐ Flood preparedness studies



Yes □ No □

#### **Emergency Need**

Yes ✓ No □

#### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency of flooding:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted

Notes:

#### **Study Costs**

\$249,480 **Total Cost:** City of Alton Study Sponsor: Estimated year to start: 2023 Entity with Oversight City of Alton Time to complete? 2025 Included in a Hazard Mitigation Yes ✓ No 🗆 Action Plan or other plan? (Potential) Source of Funding **Funding Dedicated?** FIF, local Yes □ No ✓

#### Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes □ No ✓





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

362	<u>/</u> .		
Yes	✓ No □		
	s the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs
✓	routes, and shelter locations Reduce the # of structures that have been subject to repeated flooding events through property buyouts		to incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**





#### Weslaco Stormwater Improvement Plan -Pleasantview Drive and 11th Street

FME ID: 151000064

#### **FME Description**

Installation of 3,220 LF of new storm drain system consisting of two – 8' x 4' RCBs along Mile 3 1/2.

#### Study Type

- □ Flood risk modeling/mapping
- ✓ Flood mitigation study

- ✓ Alternative Analysis □ Feasibility Assessments
- ☐ Flood preparedness studies

#### Study Area

City/ Cities Weslaco County/ Counties Hidalgo

HUC 8 12110207,

12110228

HUC 12 121102080100,

121102080300

Study Area (sq. mi.)

#### **Emergency Need**

Yes ✓ No□

#### Known Flood Risk

History of Flooding? Frequency of flooding: Yes ✓ No □ Population at Risk # of structures inundated Roadways flooded Yes ✓ No 🗆 Miles inundated? Agricultural Land impacted Yes \( \text{No} \( \text{I} \) Critical Facilities Impacted Yes □ No □

Notes:

#### Study Costs

**Total Cost:** City of Weslaco \$819,390 Study Sponsor: Estimated year to start: **Entity with Oversight** City of Weslaco Time to complete? Included in a Hazard Mitigation Yes ✓ No 🗆

Action Plan or other plan?

**Funding Dedicated?** Yes □ No ✓ (Potential) Source of Funding FIF, local

Yes □ No ✓







Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Υe	es ✓ No □		
	as the project missing sufficient data to assess whether the propidelines?	oseo	d project has a negative effect, per TWDB Yes ✔ No □
	as the project recommended by the RFPG to be studied in order benefit cost ratio or the number of structures the project remov		
Re	elated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management		Increase use of nature-based flood risk reduction projects. Develop a regionally coordinated warning and emergency response program that can detect the flood threat and
	program Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		provide timely warning of impending flood danger Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**





# Weslaco Stormwater Improvement Plan - Mile 10 N and Mile 5 ½ W

FME ID: 151000065

#### **FME Description**

Construction of an 8 acre detention pond, with approximately 4,000 LF of channel widening along the back of the neighborhoods and between the Justice Raul A. Gonzalez Elementary School and Joe Calvillo Jr Career & Technology Education Complex; replacement of existing undersized channel culvert with two  $-8' \times 5'$  reinforced concrete boxes (RCBs), and adding two  $-8' \times 5'$  RCBs to connect the existing drainage ditches to the drain channel system on the east.

#### Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- Study Area

City/ Cities Weslaco

County/ Counties Hidalgo

HUC 8 12110207,

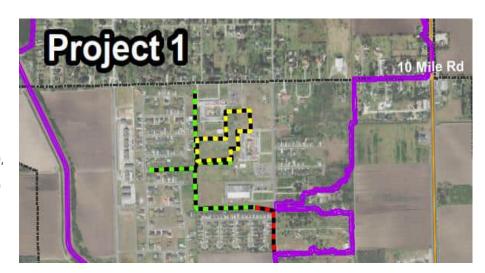
12110230

HUC 12 121102080100,

121102080300

Study Area (sq. mi.) 0.40

- ✓ Alternative Analysis
- □ Feasibility Assessments
- ☐ Flood preparedness studies



#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency of flooding:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes 
No 
Agricultural Land impacted Yes 
No

Notes:

#### Study Costs

Total Cost: \$666,151 Study Sponsor: City of Weslaco Estimated year to start: Entity with Oversight City of Weslaco

Time to complete? Included in a Hazard Mitigation Yes ✓ No □

Action Plan or other plan?

Funding Dedicated? Yes  $\square$  No  $\checkmark$  (Potential) Source of Funding FIF, local





Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG) Yes □ No ✓

Study identified because project could not be included as an Flood Mitigation Project (FMP) in

the		me	et the minimum requirements, per	TWDE	
	s the project missing sufficient data to assess whether the prop delines?	osed	project has a negative effect, per TWDB Yes	✓ No [	
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			✓ No [	
Rela	ated Goals				
	Increase community access routes to critical facilities,		Increase the # of entities that adopt higher than	n NFIP-	
	evacuation routes, during and after a flooding event Reduce the # of newly constructed vulnerable critical		minimum standards  Develop and maintain an operational stormwate	or accot	
	facilities within the existing and future 100-YR floodplain		management plan	ci asset	
	Increase the # of communities participating in the National		Increase the # of flood gauges (rainfall/stream)	in the	
	Flood Insurance Program		region		
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year d CIP list	rainage	
	Increase the coverage of available flood hazard data by		Increase the # of entities that integrate Nationa		er
	completing studies with identified construction projects to		Service and USGS Texas Water Science Center (		
	address flooding hazards		flood warning system information into their local capabilities to disseminate warnings	aı	
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction	n projec	۰†‹
<b>✓</b>	Provide regional detention that could be used for water	П	Develop a regionally coordinated warning and e		
	reuse applications or as part of a floodplain management	_	response program that can detect the flood three	•	- ,
	program		provide timely warning of impending flood dang		
	Increase acreage of publicly protected open space in critical		Increase the amount of publicly owned land in t		n
	flood risk areas that is reused for a beneficial public use		that can be utilized for future regional stormwa infrastructure	ter	
	Increase outreach and education activities, specifically		Increase the proficiency of floodplain managers		
	targeting municipal floodplain managers, hosted by Region		increasing the # of them that are certified as Ce		
	15 RFPG and available on the website		Floodplain Managers (CFM) with the Texas Floo	dplain	
	Impropose the use reverse 0.11 TV and in and in said and in		Management Association	Cupter	h.
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation		Increase participation in the Community Rating encouraging Region 15 floodplain management		
	billboards to communicate flood warnings, evacuation routes, and shelter locations		to incorporate dedicated drainage fees to imple		13
П	Reduce the # of structures that have been subject to		future FMEs and FMPs; incorporate noncomplia		

#### RFPG Recommended

repeated flooding events through property buyouts

Yes ✓ No

penalties; and who regulate development in the future

conditions floodplain





# Weslaco Stormwater Improvement Plan - South International Boulevard and Business 83

FME ID: 151000066

#### **FME Description**

Replacement of 48 – inch culverts at two roadway crossings with 6' x 4' RCBs.

#### Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- ✓ Alternative Analysis□ Feasibility Assessments
- ☐ Flood preparedness studies

#### Study Area

City/ Cities Weslaco
County/ Counties Hidalgo

HUC 8 12110207,

12110231

HUC 12 121102080100,

121102080300

Study Area (sq. mi.) 0.39



#### **Emergency Need**

Yes ✓ No 🗆

#### Known Flood Risk

History of Flooding? Yes ✓ No □ Frequency of flooding:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

#### **Study Costs**

Total Cost: \$14,071 Study Sponsor: City of Weslaco Estimated year to start: Entity with Oversight Time to complete? Included in a Hazard Mitigation Yes  $\checkmark$  No  $\Box$ 

Action Plan or other plan?

Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding FIF, local

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes □ No 🗸





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Υe	es ✓ No □		
	as the project missing sufficient data to assess whether the propidelines?	oseo	d project has a negative effect, per TWDB Yes ✔ No □
	as the project recommended by the RFPG to be studied in order benefit cost ratio or the number of structures the project remov		
Re	elated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management		Increase use of nature-based flood risk reduction projects. Develop a regionally coordinated warning and emergency response program that can detect the flood threat and
	program Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		provide timely warning of impending flood danger Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**





#### Weslaco Stormwater Improvement Plan - Texas Boulevard to Airport Drive, South of Business 83

FME ID: 151000067

#### **FME Description**

Construction of two detention ponds, 10 acres near Texas Boulevard and 18th Street and 3 acres south of Dawson Street, a berm, approximately 5,400 LF of channel widening and extension, and installation of an 8' x 4' RCB storm drain system near Border

#### Study Type

☐ Flood risk modeling/mapping✓ Flood mitigation study

#### Study Area

City/ Cities Weslaco
County/ Counties Hidalgo

HUC 8 12110207,

12110232

HUC 12 121102080100,

121102080300

Study Area (sq. mi.) 1.34

#### **Emergency Need**

Yes ✓ No 🗆

#### ✓ Alternative Analysis

□ Feasibility Assessments

 $\hfill \square$  Flood preparedness studies



#### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency of flooding:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

#### **Study Costs**

Total Cost: \$6,597,680 Study Sponsor: City of Weslaco Estimated year to start: Entity with Oversight Time to complete? Included in a Hazard Mitigation Action Plan or other plan? Funding Dedicated? Yes  $\square$  No  $\checkmark$  (Potential) Source of Funding FIF, local





Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes □ No ✓	
Study identified because project could not be income the Region 15 Regional Flood Plan because it did guidance for Regional Flood Planning or the provided Yes ✓ No□	meet the minimum requirements, per TWDB
Was the project missing sufficient data to assess whether the proguidelines?	oosed project has a negative effect, per TWDB Yes ✔ No 🗆
Was the project recommended by the RFPG to be studied in order a benefit cost ratio or the number of structures the project remov	· · ·
Related Goals	
<ul> <li>✓ Increase community access routes to critical facilities, evacuation routes, during and after a flooding event</li> <li>□ Reduce the # of newly constructed vulnerable critical</li> </ul>	<ul> <li>Increase the # of entities that adopt higher than NFIP-minimum standards</li> <li>Develop and maintain an operational stormwater asset</li> </ul>
facilities within the existing and future 100-YR floodplain Increase the # of communities participating in the National Flood Insurance Program	management plan  Increase the # of flood gauges (rainfall/stream) in the region
<ul> <li>Decrease the average age of FEMA Flood Insurance Rate</li> <li>Maps used to define SFHAs</li> </ul>	<ul> <li>Increase the # of entities that have multi-year drainage</li> <li>CIP list</li> </ul>
<ul> <li>Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards</li> </ul>	<ul> <li>Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings</li> </ul>
<ul> <li>□ Increase participation in the regional flood planning process</li> <li>✓ Provide regional detention that could be used for water reuse applications or as part of a floodplain management program</li> </ul>	<ul> <li>Increase use of nature-based flood risk reduction projects</li> <li>Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger</li> </ul>
<ul> <li>Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use</li> </ul>	<ul> <li>Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure</li> </ul>
<ul> <li>Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website</li> </ul>	<ul> <li>Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association</li> </ul>
<ul> <li>Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations</li> </ul>	<ul> <li>Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement</li> </ul>
☐ Reduce the # of structures that have been subject to	future FMEs and FMPs; incorporate noncompliance

#### RFPG Recommended

repeated flooding events through property buyouts

Yes ✓ No

penalties; and who regulate development in the future

conditions floodplain





#### Weslaco Stormwater Improvement Plan - West Weslaco

#### FME ID: 151000068

#### **FME Description**

The Study is located just west of Border Avenue, between US 83 and Zelma Street. Construction of three detention ponds, 18 acres east of Vaughn Road and Midway Road, 26 acres near West 6th Street and Milano Road and 60 acres at Harlon Block Sports Complex, approximately 17,000 LF of channel widening connecting the ponds, and installation of approximately 4500 LF of large (8' x 4', 8' x 5', 8' x 6') RCB storm drain system to improve conveyance along the channels to the ponds.

#### Study Type

- □ Flood risk modeling/mapping ✓ Flood mitigation study
- Study Area

City/ Cities Weslaco

County/ Counties Hidalgo

> HUC 8 12110207,

> > 12110233

HUC 12 121102080100,

121102080300

Study Area (sq. mi.) 2.00

#### ✓ Alternative Analysis

- □ Feasibility Assessments
- ☐ Flood preparedness studies



#### **Emergency Need**

Yes ✓ No 🗆

#### Known Flood Risk

History of Flooding? No □ Frequency of flooding: Population at Risk # of structures inundated Roadways flooded Yes ✓ No 🗆 Miles inundated? Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

#### Study Costs

Notes:

**Total Cost:** \$5,595,880 City of Weslaco Study Sponsor: Estimated year to start: Entity with Oversight City of Weslaco Time to complete? Included in a Hazard Mitigation Yes ✓ No □ Action Plan or other plan? **Funding Dedicated?** (Potential) Source of Funding Yes □ No ✓ FIF, local





	dy identified as a gap by Region 15 Regional F □ No ✓	loo	d Planning Group (RFPG)
the		me	et the minimum requirements, per TWDB
	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remove		·
Rela	ated Goals		
✓	Increase community access routes to critical facilities,		Increase the # of entities that adopt higher than NFIP-
	evacuation routes, during and after a flooding event Reduce the # of newly constructed vulnerable critical		minimum standards Develop and maintain an operational stormwater asset
	facilities within the existing and future 100-YR floodplain		management plan
	Increase the # of communities participating in the National		Increase the # of flood gauges (rainfall/stream) in the
	Flood Insurance Program		region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by		Increase the # of entities that integrate National Weather
	completing studies with identified construction projects to		Service and USGS Texas Water Science Center (TXWSC)
	address flooding hazards		flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
<b>✓</b>	Provide regional detention that could be used for water		Develop a regionally coordinated warning and emergency
	reuse applications or as part of a floodplain management		response program that can detect the flood threat and
	program		provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical		Increase the amount of publicly owned land in the region
	flood risk areas that is reused for a beneficial public use		that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically		Increase the proficiency of floodplain managers by
	targeting municipal floodplain managers, hosted by Region		increasing the # of them that are certified as Certified
	15 RFPG and available on the website		Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and		Increase participation in the Community Rating System by
Ш	billboards to communicate flood warnings, evacuation		encouraging Region 15 floodplain management programs
	routes, and shelter locations		to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to		future FMEs and FMPs; incorporate noncompliance
	repeated flooding events through property buyouts		penalties; and who regulate development in the future

conditions floodplain

#### **RFPG Recommended**





#### Weslaco Stormwater Improvement Plan -Westgate Drive and Sugar Cane Drive

FME ID: 151000069

#### **FME Description**

Construction of two detention ponds, 11 acres near Clecker-Heald Elementary School and 8 acres behind the commercial properties north of Interstate 2, approximately 4,500 LF of channel widening connecting the two ponds, addition of a new 42-inch reinforced concrete pipe (RCP) culvert east of Border Avenue, and installation of approximately 5,600 LF of an 8' x 4' RCB storm drain system along West Paisano Lane and East Ballard Street.

#### Study Type

- ☐ Flood risk modeling/mapping
- ✓ Flood mitigation study

- ✓ Alternative Analysis
- ☐ Feasibility Assessments
- ☐ Flood preparedness studies

#### Study Area

City/ Cities Weslaco

County/ Counties Hidalgo

> HUC 8 12110207,

> > 12110234

HUC 12 121102080100,

121102080300

Study Area (sq. mi.) 1.58



Yes □ No □

#### **Emergency Need**

Yes ✓ No 🗆

#### Known Flood Risk

History of Flooding? Frequency of flooding: No □ Population at Risk # of structures inundated Roadways flooded Yes ✓ No 🗆 Miles inundated? Critical Facilities Impacted Yes □ No □ Agricultural Land impacted

Notes:

#### Study Costs

**Total Cost:** City of Weslaco \$1,664,860 Study Sponsor: Estimated year to start: Entity with Oversight City of Weslaco

Time to complete? Included in a Hazard Mitigation Yes ✓ No □ Action Plan or other plan?

(Potential) Source of Funding **Funding Dedicated?** Yes □ No ✓ FIF, local





Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes	□ No ✓		J = == 1
he gui	dy identified because project could not be inc Region 15 Regional Flood Plan because it did dance for Regional Flood Planning or the prov 2. ✓ No□	me	et the minimum requirements, per TWDB
	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
✓	Increase community access routes to critical facilities,		Increase the # of entities that adopt higher than NFIP-
	evacuation routes, during and after a flooding event Reduce the # of newly constructed vulnerable critical	П	minimum standards Develop and maintain an operational stormwater asset
_	facilities within the existing and future 100-YR floodplain		management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
✓	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs
	routes, and shelter locations Reduce the # of structures that have been subject to repeated flooding events through property buyouts		to incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**





Precinct 4 MDP - Risk Area A at Mile 8.5 Rd. & FME ID: 151000071 Ware Rd.

#### **FME Description**

Approximately 1 mile of proposed channel improvements. Proposed culverts. Proposed Detention Ponds with pond north of Mile 8.5 Rd. to collect runoff from the west and has an approximate footprint of 12 acres and storage capacity of 60 acre-ft and will outfall south towards the pond south of Mile 8.5 Rd.

#### Study Type

- ☐ Flood risk modeling/mapping
- ✓ Flood mitigation study

- ✓ Alternative Analysis
- □ Feasibility Assessments
- $\hfill \square$  Flood preparedness studies

#### Study Area

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110279

HUC 12 121102080400,

121102070100,

121102080200

Study Area (sq. mi.) 0.79



#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding?	Yes ✓ No 🗆	Frequency of flooding:		
Population at Risk		# of structures inundated		
Roadways flooded	Yes ✓ No 🗆	Miles inundated?		
Critical Facilities Impacted	Yes □ No □	Agricultural Land impacted	Yes 🗆	No 🗆
Notes:		-		

#### **Study Costs**

Total Cost:	\$2,984,850	Study Sponsor:	Hidalgo County Precinct 4
Estimated year to start:	2023	Entity with Oversight	Hidalgo County Precinct 4
Time to complete?	2025	Included in a Hazard Mitigation	Yes ✓ No 🗆
		Action Plan or other plan?	
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	FIF, local





Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes	S □ No ✓		Jana P. Cara
he gui 362	dy identified because project could not be inc Region 15 Regional Flood Plan because it did dance for Regional Flood Planning or the prov 2. ✓ No□	me	et the minimum requirements, per TWDB
	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	is the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
✓	Increase community access routes to critical facilities,		Increase the # of entities that adopt higher than NFIP-
	evacuation routes, during and after a flooding event Reduce the # of newly constructed vulnerable critical	П	minimum standards Develop and maintain an operational stormwater asset
	facilities within the existing and future 100-YR floodplain		management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
✓	Provide regional detention that could be used for water reuse applications or as part of a floodplain management		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and
	program  Increase acreage of publicly protected open space in critical		provide timely warning of impending flood danger Increase the amount of publicly owned land in the region
	flood risk areas that is reused for a beneficial public use		that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically		Increase the proficiency of floodplain managers by
	targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs
	routes, and shelter locations Reduce the # of structures that have been subject to repeated flooding events through property buyouts		to incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### **RFPG Recommended**





# Precinct 4 MDP - Risk Area B at Mile 6 & North Ware Rd.

FME ID: 151000072

#### **FME Description**

Regional Detention Facilities with a pond footprint of 25 acres along the Existing HCDD1 West Main Drain. Storm Drain and Local Drainage Improvements. Channel maintenance.

#### Study Type

- $\ \square$  Flood risk modeling/mapping
- ✓ Flood mitigation study

- ✓ Alternative Analysis□ Feasibility Assessments
- ☐ Flood preparedness studies

#### Study Area

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110280

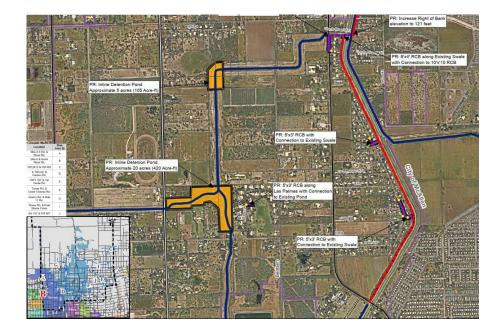
HUC 12 121102080400,

121102070100,

121102080200,

121102080200

Study Area (sq. mi.) 0.15



#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding?	Yes ✓	No □	Frequency of flooding:		
Population at Risk			# of structures inundated		
Roadways flooded	Yes ✓	No $\square$	Miles inundated?		
Critical Facilities Impacted	Yes 🗆	No □	Agricultural Land impacted	Yes □	No □

#### **Study Costs**

Notes:

Total Cost:	\$4,076,320	Study Sponsor:	Hidalgo County Precinct 4
Estimated year to start:	2023	Entity with Oversight	Hidalgo County Precinct 4
Time to complete?	2025	Included in a Hazard Mitigation	Yes ✓ No 🗆
		Action Plan or other plan?	
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	FIF, local





Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG) Yes □ No ✓

the		me	et the minimum requirements, per TWDB
	s the project missing sufficient data to assess whether the prop delines?	osec	I project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rela	ated Goals		
$\checkmark$	Increase community access routes to critical facilities,		Increase the # of entities that adopt higher than NFIP-
	evacuation routes, during and after a flooding event		minimum standards
	Reduce the # of newly constructed vulnerable critical		Develop and maintain an operational stormwater asset
	facilities within the existing and future 100-YR floodplain		management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
✓	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs

#### RFPG Recommended

routes, and shelter locations

Reduce the # of structures that have been subject to repeated flooding events through property buyouts

Yes ✓ No

to incorporate dedicated drainage fees to implement

penalties; and who regulate development in the future

future FMEs and FMPs; incorporate noncompliance

conditions floodplain





# Precinct 4 MDP - Risk Area C at FM 2812 & FM 493

#### FME ID: 151000073

#### **FME Description**

Channel Improvements (Widening & Regrading) to Existing J-01 Drain with approximately 1.5 miles of proposed improvements. Channel Improvements (Channel Maintenance & Flowline Regrading) to Existing DA-1 Ext. Drain with approximately 0.4 miles of proposed improvements. Proposed detention pond will have an approximate footprint of 9 acres and storage capacity of 90 acre-ft. Grate inlets & proposed storm drain channel maintenance & debris removal.

#### Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- ng ✓ Alternative Analysis

  □ Feasibility Assessments
- ☐ Flood preparedness studies

#### Study Area

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110281

HUC 12 121102080400,

121102070100,

121102080200,

121102080200

Study Area (sq. mi.) 3.23

# HCDDI Proposed Burder Town Submission J.4. Drain System Improvements (Details Provided) PR. 6x9 RCB Under Crossing with Mile 21.5 N (FM 2812) PR. 4x9 DIA Storm Drain With Dial Connection to J-91 Drain PR. 4x9 DIA Storm Drain With Dial Connection to J-91 Drain PR. 4x9 DIA Storm Drain PR. 4x9 DIA Storm Drain PR. 4x9 DIA Storm Drain Approx. 9 Agree. 81 Agree. In the sale of the sal

#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding?	Yes  ✓ No 🗆	Frequency of flooding:	
Population at Risk		# of structures inundated	
Roadways flooded	Yes  ✓ No 🗆	Miles inundated?	
Critical Facilities Impacted	Yes □ No □	Agricultural Land impacted	Yes □ No □

#### **Study Costs**

Notes:

Total Cost:	\$1,183,050	Study Sponsor:	Hidalgo County Precinct 4
Estimated year to start:	2023	Entity with Oversight	Hidalgo County Precinct 4
Time to complete?	2025	Included in a Hazard Mitigation	Yes ✓ No 🗆
		Action Plan or other plan?	
Funding Dedicated?	Yes □ No ✓	(Potential) Source of Funding	FIF, local





Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes	□ No ✓	100	
the guid 362	dy identified because project could not be inc Region 15 Regional Flood Plan because it did dance for Regional Flood Planning or the prov ✓ No□	me	et the minimum requirements, per TWDB
Was	the project missing sufficient data to assess whether the proposed p	roject	t has a negative effect, per TWDB guidelines? Yes ✓ No □
	the project recommended by the RFPG to be studied in order for it to ratio or the number of structures the project removes from the 100-		
Rela	ated Goals		
✓	Increase community access routes to critical facilities, evacuation		Increase the # of entities that adopt higher than NFIP-minimum
	routes, during and after a flooding event Reduce the # of newly constructed vulnerable critical facilities		standards Develop and maintain an operational stormwater asset
	within the existing and future 100-YR floodplain Increase the # of communities participating in the National Flood Insurance Program		management plan Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
□ ✓	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement future FMEs
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
	G Recommended		
Yes	✓ No		





Precinct 4 MDP - Risk Area D at S. McColl & Canton Rd.

FME ID: 151000074

#### **FME Description**

Channel Improvements (Widening & Regrading) to Existing McAllen Lateral & North Main Drain with approximately 2.25 miles of proposed improvements from S McColl St. to State Highway 107. Crossings at W Canton Rd., W Freddy Gonzalez Dr., and W Sprague St. were all evaluated up to the 25-year design storm criteria for upsizing evaluation.

#### Study Type

- ☐ Flood risk modeling/mapping
- ✓ Flood mitigation study

- ✓ Alternative Analysis
- ☐ Feasibility Assessments
- ☐ Flood preparedness studies

#### Study Area

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110282

HUC 12 121102080400,

121102070100,

121102080200,

121102080200

Study Area (sq. mi.) 1.40

# Structures at risk 50-YR 21/1,491 122/228 1% 5% FR. Channel Mydening of Evisting North Main Drain of Evisting North Main Drain PR. Channel Widening on Provements at Crossing with S. McColl St. Begin McAllen Lateral Improvements at Crossing with S. McColl St. Begin Channel Widening Train Begin Channel

#### **Emergency Need**

Yes ✓ No □

#### **Known Flood Risk**

History of Flooding? Yes ✓ No □

Population at Risk

Roadways flooded Yes ✓ No □

Critical Facilities Impacted Yes □ No □

#### **Study Costs**

Notes:

**Total Cost:** \$953,700 Study Sponsor: Hidalgo County Precinct 4 Hidalgo County Precinct 4 Estimated year to start: 2023 Entity with Oversight Time to complete? 2025 Included in a Hazard Mitigation Yes ✓ No □ Action Plan or other plan? **Funding Dedicated?** (Potential) Source of Funding FIF, local Yes □ No ✓





	dy identified as a gap by Region 15 Regional F □ No ✓	loo	d Planning Group (RFPG)
the		me	et the minimum requirements, per TWDB
	s the project missing sufficient data to assess whether the prop delines?	osed	I project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remove		
Rela	ated Goals		
✓	Increase community access routes to critical facilities,		Increase the # of entities that adopt higher than NFIP-
	evacuation routes, during and after a flooding event		minimum standards
Ш	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset
	Increase the # of communities participating in the National		management plan Increase the # of flood gauges (rainfall/stream) in the
Ш	Flood Insurance Program	ш	region
	Decrease the average age of FEMA Flood Insurance Rate		Increase the # of entities that have multi-year drainage
	Maps used to define SFHAs		CIP list
	Increase the coverage of available flood hazard data by		Increase the # of entities that integrate National Weather
	completing studies with identified construction projects to		Service and USGS Texas Water Science Center (TXWSC)
	address flooding hazards		flood warning system information into their local
	Increase participation in the regional flood planning process		capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency
	reuse applications or as part of a floodplain management		response program that can detect the flood threat and
	program		provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical		Increase the amount of publicly owned land in the region
	flood risk areas that is reused for a beneficial public use		that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically		Increase the proficiency of floodplain managers by
	targeting municipal floodplain managers, hosted by Region		increasing the # of them that are certified as Certified
	15 RFPG and available on the website		Floodplain Managers (CFM) with the Texas Floodplain
			Management Association
	Increase the use reverse 911, TV, radio, social media, and		Increase participation in the Community Rating System by
	billboards to communicate flood warnings, evacuation		encouraging Region 15 floodplain management programs
	routes, and shelter locations Reduce the # of structures that have been subject to		to incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance
	repeated flooding events through property buyouts		penalties; and who regulate development in the future
	repeated heeding events through property buyouts		portation, and who regulate development in the lattice

conditions floodplain

#### **RFPG Recommended**





Precinct 4 MDP - Risk Area E at Hwy 107 & Val FME ID: 151000075 Verde Rd.

#### **FME Description**

Channel Improvements with approximately 0.3 miles of proposed improvements. Proposed detention pond north of Tex-Mex Rd. and east of S 87th St. has an approximate footprint of 4.25 acres and capacity of 20 acre-ft. Grate Inlets and Proposed Storm Drain 5'x5' grate inlets spaced along every 500' of storm drain with a 4'x2' RCB along S 85th St.

#### Study Type

- ☐ Flood risk modeling/mapping
- ✓ Flood mitigation study

- ✓ Alternative Analysis
- □ Feasibility Assessments
- $\hfill \square$  Flood preparedness studies

#### Study Area

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110283

HUC 12 121102070100,

121102080200,

121102080400,

Study Area (sq. mi.) 0.1

# IS AND THE REPORT OF THE PROPERTY OF THE PROPE

#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

#### **Study Costs**

**Total Cost:** \$747,450 Study Sponsor: Hidalgo County Estimated year to start: **Entity with Oversight** Hidalgo County 2023 Time to complete? 2025 Included in a CIP or other plan? Yes ✓ No 🗆 Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding FIF, Local





Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG) Yes □ No ✓ Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362. Yes ✓ No □ Was the project missing sufficient data to assess whether the proposed project has a negative effect, per TWDB No □ guidelines? Was the project recommended by the RFPG to be studied in order for it to provide more project details, such as No □ a benefit cost ratio or the number of structures the project removes from the 100-year floodplain? Related Goals Increase community access routes to critical facilities, Increase the # of entities that adopt higher than NFIPevacuation routes, during and after a flooding event minimum standards Reduce the # of newly constructed vulnerable critical Develop and maintain an operational stormwater asset facilities within the existing and future 100-YR floodplain management plan Increase the # of communities participating in the National Increase the # of flood gauges (rainfall/stream) in the Flood Insurance Program region Decrease the average age of FEMA Flood Insurance Rate Increase the # of entities that have multi-year drainage Maps used to define SFHAs Increase the coverage of available flood hazard data by Increase the # of entities that integrate National Weather completing studies with identified construction projects to Service and USGS Texas Water Science Center (TXWSC) address flooding hazards flood warning system information into their local capabilities to disseminate warnings Increase participation in the regional flood planning process Increase use of nature-based flood risk reduction projects Provide regional detention that could be used for water Develop a regionally coordinated warning and emergency reuse applications or as part of a floodplain management response program that can detect the flood threat and provide timely warning of impending flood danger program Increase the amount of publicly owned land in the region Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use that can be utilized for future regional stormwater infrastructure Increase outreach and education activities, specifically Increase the proficiency of floodplain managers by targeting municipal floodplain managers, hosted by Region increasing the # of them that are certified as Certified 15 RFPG and available on the website Floodplain Managers (CFM) with the Texas Floodplain Management Association Increase the use reverse 911, TV, radio, social media, and Increase participation in the Community Rating System by billboards to communicate flood warnings, evacuation encouraging Region 15 floodplain management programs routes, and shelter locations to incorporate dedicated drainage fees to implement Reduce the # of structures that have been subject to future FMEs and FMPs; incorporate noncompliance repeated flooding events through property buyouts penalties; and who regulate development in the future

conditions floodplain

#### RFPG Recommended





FME ID: 151000076 Precinct 4 MDP - Risk Area F at Texas Rd. & Cesar Chavez Rd.

#### **FME Description**

Channel Improvements with approximately 0.6 miles of proposed improvements. Grate Inlets and Proposed Storm Drain with grate inlets in sag spaced along every 500' tying into a 42" RCP along Cesar Chavez Road starting at just south of Texas Rd to the Curry Drain. Culvert Improvements with connections between the proposed open channels and existing HCDD1 Edinburg Stub will require the installation of 4'x3' RCBs.

#### Study Type

- ☐ Flood risk modeling/mapping
- ✓ Flood mitigation study

- ✓ Alternative Analysis □ Feasibility Assessments
- □ Flood preparedness studies

#### Study Area

City/ Cities

County/ Counties Hidalgo

> HUC 8 12110207,

> > 12110284

HUC 12 121102070100,

121102080200,

121102080400,

Study Area (sq. mi.) 0.56



#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding?	Yes  ✓ No □	Frequency:	
Population at Risk		# of structures inundated	
Roadways flooded	Yes ✓ No 🗆	Miles inundated?	
Critical Facilities Impacted	Yes □ No □	Agricultural Land impacted	Yes □ No □
Notes:			

**Study Costs** 

**Total Cost:** \$1,188,000 Hidalgo County Study Sponsor: Estimated year to start: Entity with Oversight Hidalgo County 2023 Time to complete? 2025 Included in a CIP or other plan? Yes ✓ No □ Funding Dedicated? (Potential) Source of Funding FIF, Local Yes □ No ✓

#### Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes □ No ✓





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

gui	dance for Regional Flood Flatifility of the prov	1310	ris of fille 31 of TAQC Chapters 301 and
362			
Yes	✓ No □		
Was	s the project missing sufficient data to assess whether the proposed p	rojec	t has a negative effect, per TWDB guidelines? Yes ✓ No □
	s the project recommended by the RFPG to be studied in order for it t tratio or the number of structures the project removes from the 100-		
Rela	ated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement future FMEs
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**





Precinct 4 MDP - Risk Area G at Hoehn Rd. & Mile 11 Rd.

FME ID: 151000077

#### **FME Description**

Channel Improvements with approximately 0.75 miles of proposed improvements. Proposed Pond north of County Road 3424 and west of County Road 3421 has an approximate footprint of 5 acres and capacity of 35 acre-ft. Grate Inlets and Proposed Storm Drain 5'x5' grate inlets will be located at the southwest corner of Eubanks and County Road 3424 with a connection to a 42" DIA RCP storm drain. Proposed culverts.

#### Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- ✓ Alternative Analysis□ Feasibility Assessments
- $\ \square$  Flood preparedness studies

#### Study Area

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110285

HUC 12 121102070100,

121102080200,

121102080400,

Study Area (sq. mi.) 0.79

# Monte Cristo Rd

#### Frequency: # of structures inundated Miles inundated?

Agricultural Land impacted Yes  $\square$  No  $\square$ 

#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

Critical Facilities Impacted

History of Flooding? Yes ✓ No □

Population at Risk

Roadways flooded Yes ✓ No □

Notes:

#### **Study Costs**

**Total Cost:** \$909,150 Hidalgo County Study Sponsor: Estimated year to start: **Entity with Oversight** Hidalgo County 2023 Included in a CIP or other plan? Time to complete? 2025 Yes ✓ No 🗆 FIF, Local **Funding Dedicated?** (Potential) Source of Funding Yes □ No ✓

Yes □ No □





Yes □ No ✓ Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362. Yes ✓ No □ Was the project missing sufficient data to assess whether the proposed project has a negative effect, per TWDB No □ guidelines? Was the project recommended by the RFPG to be studied in order for it to provide more project details, such as No □ a benefit cost ratio or the number of structures the project removes from the 100-year floodplain? Related Goals Increase community access routes to critical facilities, Increase the # of entities that adopt higher than NFIPevacuation routes, during and after a flooding event minimum standards Reduce the # of newly constructed vulnerable critical Develop and maintain an operational stormwater asset facilities within the existing and future 100-YR floodplain management plan Increase the # of communities participating in the National Increase the # of flood gauges (rainfall/stream) in the Flood Insurance Program region Decrease the average age of FEMA Flood Insurance Rate Increase the # of entities that have multi-year drainage Maps used to define SFHAs

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

#### Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations

Increase outreach and education activities, specifically

targeting municipal floodplain managers, hosted by Region

Increase the coverage of available flood hazard data by

completing studies with identified construction projects to

Increase participation in the regional flood planning process

Provide regional detention that could be used for water

reuse applications or as part of a floodplain management

Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use

 Reduce the # of structures that have been subject to repeated flooding events through property buyouts

15 RFPG and available on the website

#### Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

Increase the # of entities that integrate National Weather

Increase use of nature-based flood risk reduction projects

Develop a regionally coordinated warning and emergency

Increase the amount of publicly owned land in the region

that can be utilized for future regional stormwater

Increase the proficiency of floodplain managers by

increasing the # of them that are certified as Certified

Floodplain Managers (CFM) with the Texas Floodplain

response program that can detect the flood threat and provide timely warning of impending flood danger

Service and USGS Texas Water Science Center (TXWSC)

flood warning system information into their local

capabilities to disseminate warnings

conditions floodplain

Management Association

infrastructure

#### RFPG Recommended

address flooding hazards

program





# Precinct 4 MDP - Risk Area I at Sharp Rd. & E Monte Cristo Rd

#### FME ID: 151000078

#### **FME Description**

Inlets and proposed storm drain with Approximately 1,100′ of 4′x4′ RCB storm drain with curb inlets to be installed along Hendrix Dr. and Gaston Cr. with approximately 1,200′ of 6′x4′ RCB storm with grate and sag inlets along Uresti Rd. with connection to the HCDD1 J-02 Drain. Proposed installation of grate and sag inlets along Mile 19 Rd. (Phase Two) and proposed installation of grate and sag inlets along Sharp Rd. (Phase Two). Proposed Culverts Improvements (Phase One). Proposed detention pond with 9 acre footprint. Channel maintenance.

#### Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- Study Area

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110286

HUC 12 121102080400,

121102070100,

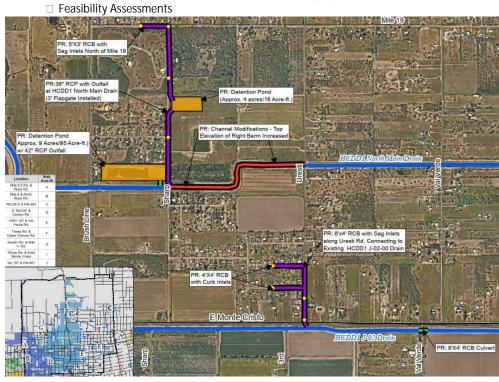
121102080200,

121102080200

Study Area (sq. mi.) 0.73

#### ✓ Alternative Analysis

□ Flood preparedness studies



#### **Emergency Need**

Yes ✓ No 🗆

#### Known Flood Risk

History of Flooding? Yes ✓ No □ Frequency of flooding:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

#### **Study Costs**

Total Cost: \$899,250 Study Sponsor: Hidalgo County Precinct 4
Estimated year to start: 2023 Entity with Oversight
Time to complete? 2025 Included in a Hazard Mitigation
Action Plan or other plan? Hidalgo County Precinct 4
Yes ✓ No □

Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding FIF, local





Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes □ No ✓			3 7	
the Region 15 Regiona	Il Flood Plan because it did	me	ed as an Flood Mitigation Project (FMP) in et the minimum requirements, per TWDI ns of Title 31 of TAQC Chapters 361 and	
Was the project missing sufficier	it data to assess whether the proposed p	roject	has a negative effect, per TWDB guidelines? Yes ✔ No 🗆	
	by the RFPG to be studied in order for it to tures the project removes from the 100-		vide more project details, such as a benefit Yes ✓ No □ loodplain?	
Related Goals				
✓ Increase community access routes, during and after a fle	routes to critical facilities, evacuation		Increase the # of entities that adopt higher than NFIP-minimu standards	m
	tructed vulnerable critical facilities		Develop and maintain an operational stormwater asset management plan	
	ies participating in the National Flood		Increase the # of flood gauges (rainfall/stream) in the region	
	f FEMA Flood Insurance Rate Maps		Increase the # of entities that have multi-year drainage CIP lis	t
☐ Increase the coverage of av	ailable flood hazard data by completing truction projects to address flooding		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings	
Provide regional detention to the provide region to the provide region and the provide region to the provide region and	regional flood planning process hat could be used for water reuse loodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide	le
	protected open space in critical flood		timely warning of impending flood danger Increase the amount of publicly owned land in the region that	0
	a beneficial public use ation activities, specifically targeting ers, hosted by Region 15 RFPG and		can be utilized for future regional stormwater infrastructure Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Manag (CFM) with the Texas Floodplain Management Association	ers
☐ Increase the use reverse 91	1, TV, radio, social media, and flood warnings, evacuation routes, and		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement future FMI	Es
	hat have been subject to repeated perty buyouts		and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain	
RFPG Recommended				
Yes ✓ No				





FME ID: 151000079 Precinct 4 MDP - Risk Area J at SH107 & FM

#### **FME Description**

Channel Improvements (Widening & Regrading) to Existing HCDD1 "Y" drain with approximately 0.75 miles of proposed channel improvements beginning at Fresno Dr. and ending at E Curry Rd. Proposed Drainage Grate Inlets approximately 3,800' of storm drain to provide local drainage improvements north and west of existing HCDD1 "Y" Drain in two separate systems. Proposed culverts improvements. Proposed detention pond with a 2.7 acre footprint.

#### Study Type

- ☐ Flood risk modeling/mapping
- ✓ Flood mitigation study
- Study Area

City/ Cities

County/ Counties Hidalgo

> HUC 8 12110207,

> > 12110287

HUC 12 121102070100,

121102080200,

121102080400.

Study Area (sq. mi.) 0.15

- ✓ Alternative Analysis ☐ Feasibility Assessments
- ☐ Flood preparedness studies



#### **Emergency Need**

Yes ✓ No □

#### Known Flood Risk

History of Flooding? Yes ✓ No □ Frequency: Population at Risk # of structures inundated Yes ✓ No 🗆 Roadways flooded Miles inundated? Critical Facilities Impacted Yes  $\square$  No  $\square$ Agricultural Land impacted Yes □ No □ Notes:

#### **Study Costs**

**Total Cost:** \$541,200 Study Sponsor: Hidalgo County Estimated year to start: Entity with Oversight Hidalgo County 2023 Time to complete? 2025 Included in a CIP or other plan? Yes ✓ No 🗆 Funding Dedicated? FIF, Local Yes □ No ✓ (Potential) Source of Funding





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes ✓ No□

Was the project missing sufficient data to assess whether the proposed project has a negative effect, per TWDB guidelines? Yes ✓ No□

Was the project recommended by the RFPG to be studied in order for it to provide more project details, such as a benefit Yes ✓ No□

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

cost ratio or the number of structures the project removes from the 100-year floodplain?

#### **Related Goals**

Yes □ No ✓

<b>v</b>	routes, during and after a flooding event	Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities	Develop and maintain an operational stormwater asset
	within the existing and future 100-YR floodplain	management plan
	Increase the # of communities participating in the National Flood Insurance Program	Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs	Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing	Increase the # of entities that integrate National Weather
	studies with identified construction projects to address flooding hazards	Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to
	Hazarus	disseminate warnings
	Increase participation in the regional flood planning process	Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse	Develop a regionally coordinated warning and emergency
	applications or as part of a floodplain management program	response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood	Increase the amount of publicly owned land in the region that
	risk areas that is reused for a beneficial public use	can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting	Increase the proficiency of floodplain managers by increasing
	municipal floodplain managers, hosted by Region 15 RFPG and	the # of them that are certified as Certified Floodplain Manager
	available on the website	(CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and	Increase participation in the Community Rating System by
	billboards to communicate flood warnings, evacuation routes, and	encouraging Region 15 floodplain management programs to
	shelter locations	incorporate dedicated drainage fees to implement future FMEs
	Reduce the # of structures that have been subject to repeated	and FMPs; incorporate noncompliance penalties; and who

#### **RFPG Recommended**

flooding events through property buyouts

Yes ✓ No

regulate development in the future conditions floodplain





FME ID: 151000082

#### Jim Hogg County Master Drainage Study

#### **FME Description**

Develop Flood risk maps for th	e county o	f Jim Ho	ogg and develop CIP	
Study Type  ✓ Flood risk modeling/mappir ✓ Flood mitigation study	ng		✓ Alternative Analysis  ☐ Feasibility Assessments	☐ Flood preparedness studies
Study Area City/ Cities County/ Counties Jim Hoo HUC 8 HUC 12 Study Area (sq. mi.) 870.56	99		Insert snip of Lo	ocation Map here
Emergency Need Yes ✓ No □				
Known Flood Risk History of Flooding? Population at Risk Roadways flooded Critical Facilities Impacted Notes:	Yes ✓ Yes □ Yes □	No 🗆 No 🗆	Frequency: # of structures inundated Miles inundated? Agricultural Land impacted	Yes □ No □
Study Costs  Total Cost: Estimated year to start: Time to complete? Funding Dedicated?	\$25 Yes □	50,000 No ✓	Study Sponsor: Entity with Oversight Included in a CIP or other plan? (Potential) Source of Funding	Yes □ No ✓

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes ✓ No 🗆





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □		
	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### **RFPG Recommended**





FME ID: 151000083

#### **Kenedy County Master Drainage Study**

#### **FME Description**

Yes ✓ No 🗆

Develop Flood risk maps for the county of Kenedy and develop CIP			
Study Type			
<ul><li>✓ Flood risk modeling/mapping</li><li>✓ Flood mitigation study</li></ul>		<ul><li>✓ Alternative Analysis</li><li>□ Feasibility Assessments</li></ul>	☐ Flood preparedness studies
Study Area			
City/ Cities		Insert snip of Location Map here	
County/ Counties Kenedy			
HUC 8			
HUC 12			
Study Area (sq. mi.) 1478.25			
Emergency Need			
Yes ✓ No □			
Known Flood Risk			
History of Flooding?	Yes ✓ No	1 2	
Population at Risk Roadways flooded	Yes □ No	# of structures inundated Miles inundated?	
Critical Facilities Impacted	Yes \( \Bar{\capacita} \) No		Yes □ No □
Notes:			
Study Costs			
Total Cost:	\$250,0		
Estimated year to start: Time to complete?		Entity with Oversight Included in a CIP or other plan?	Yes □ No ✓
Funding Dedicated?	Yes □ No		
Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)			





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □		
	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

# **RFPG Recommended**





FME ID: 151000084

# Fort Clark MUD Master Drainage Study

# **FME Description**

Yes ✓ No 🗆

Develop Flood risk maps for Fort Clark MUD and develop CIP

Develop Flood Hisk Hidps for For	t oldrik Wob and av	evelop on				
Study Type  ✓ Flood risk modeling/mapping ✓ Flood mitigation study	•	Alternative Analysis Feasibility Assessments	☐ Flood preparedness studies			
Study Area City/ Cities		Insert snip of Lo	ocation Map here			
County/ Counties Kinney						
HUC 8 HUC 12						
Study Area (sq. mi.) 4.21						
Emergency Need Yes ✓ No □						
Known Flood Risk History of Flooding? Population at Risk Roadways flooded Critical Facilities Impacted Notes:	Yes ✓ No □ Yes □ No □ Yes □ No □	Frequency: # of structures inundated Miles inundated? Agricultural Land impacted	Yes □ No □			
Study Costs  Total Cost: Estimated year to start: Time to complete? Funding Dedicated?	\$250,000 Yes □ No ✓	Study Sponsor: Entity with Oversight Included in a CIP or other plan? (Potential) Source of Funding	Yes □ No ✓			
Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)						





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □		
	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

# **RFPG Recommended**





# Kinney County Master Drainage Study

FME ID: 151000085

_		_	_		
H	N /I	I <b>⊢</b>	Descri	nt	ion
	IVI		<b>DC3CH</b>	νι	ווטו

Develop Flood risk maps for the county of Kinney and develop CIP

Study Type  ✓ Flood risk modeling/mapping ✓ Flood mitigation study			Alternative Analysis easibility Assessments	☐ Flood preparedness studies
Study Area City/ Cities County/ Counties Kinney HUC 8 HUC 12 Study Area (sq. mi.) 751.29			Insert snip of Lo	ocation Map here
Emergency Need Yes ✓ No □				
Known Flood Risk History of Flooding? Population at Risk Roadways flooded Critical Facilities Impacted Notes:	Yes ✓ Yes □ Yes □	No 🗆 No 🗆 No 🗆	Frequency: # of structures inundated Miles inundated? Agricultural Land impacted	Yes □ No □
Study Costs				

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Study Sponsor: Entity with Oversight

Included in a CIP or other plan? Yes □ No ✓

(Potential) Source of Funding

\$250,000

Yes □ No ✓

Yes ✓ No 🗆

**Total Cost:** 

Estimated year to start:

Time to complete?

Funding Dedicated?





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □		
	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities,		Increase the # of entities that adopt higher than NFIP-
	evacuation routes, during and after a flooding event Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		minimum standards  Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

# **RFPG Recommended**





Risk Area 11 Rancho Escondido

FME ID: 151000086

# **FME Description**

Study includes constructing 10'x2' U-shaped channel from Flores Drive to just south of Microtel Inn Suites, replacing existing culvert under Maza Drive with 1-8'x4 RCB, and installing curb inlet at cul-de-sac on Nancy Drive.

# Study Type

- □ Flood risk modeling/mapping ✓ Flood mitigation study
- Study Area

County/ Counties

City/ Cities Eagle Pass

> HUC 8 13080001,

> > 13080002

Maverick

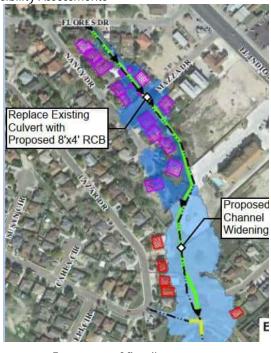
HUC 12 130800020703,

130800020702

Study Area (sq. mi.) 0.03

- ✓ Alternative Analysis
- ☐ Feasibility Assessments

☐ Flood preparedness studies



# **Known Flood Risk**

**Emergency Need** 

Yes ✓ No 🗆

History of Flooding? Yes ✓ No 🗆 Population at Risk Roadways flooded

Yes ✓ No □ Critical Facilities Impacted Yes □ No □

Notes:

Frequency of flooding: # of structures inundated Miles inundated?

Agricultural Land impacted Yes □ No □

# **Study Costs**

**Total Cost:** Estimated year to start: Time to complete?

Funding Dedicated? Yes □ No ✓

City of Eagle Pass Study Sponsor: Entity with Oversight City of Eagle Pass Included in a Hazard Mitigation Yes ✓ No 🗆

Action Plan or other plan?

(Potential) Source of Funding FIF, local

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

\$136,785

Yes □ No ✓



Yes ✓ No 🗆



Flood Mitigation Evaluations Fact Sheet

Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to		future FMEs and FMPs; incorporate noncompliance
	repeated flooding events through property buyouts		penalties; and who regulate development in the future

conditions floodplain

# **RFPG Recommended**





☐ Flood preparedness studies

to Existing Culvert

# Risk Area 12 Fox Borough Drive

FME ID: 151000087

# **FME Description**

Study includes bypassing flow from inlet at PointLoma Drive and North Point Drive to the detention pond with 1 - 8'x4' RCB and Installing additional curb inlets on N. Point Drive and Silver Oak Circle.

✓ Alternative Analysis

# Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- Study Area

City/ Cities Eagle Pass

County/ Counties Maverick

HUC 8 13080001,

13080002

HUC 12 130800020703,

130800020702

Study Area (sq. mi.) 0.05

# **Emergency Need**

Yes ✓ No 🗆

# Known Flood Risk

History of Flooding?

Population at Risk

Roadways flooded

Yes ✓ No □

Wiles inundated

Yes □ No □

Agricultural Land impacted

Yes □ No □

Yes □ No ✓

Notes:

# Study CostsTotal Cost:\$177,870Study Sponsor:City of Eagle PassEstimated year to start:Entity with OversightCity of Eagle Pass

Time to complete? Included in a Hazard Mitigation Yes ✓ No □

Action Plan or other plan?

LAS CIMAS D

Proposed Channel Widening

Funding Dedicated? Yes  $\square$  No  $\checkmark$  (Potential) Source of Funding FIF, local

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)



Yes ✓ No 🗆



Flood Mitigation Evaluations Fact Sheet

Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

	s the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB Yes $\checkmark$ No $\Box$
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
<b>√</b>	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

# **RFPG Recommended**





Risk Area 13 Celle De Los Santos neighborhood.

FME ID: 151000088

Additional culvert under irrigation canal.

# **FME Description**

Study includes upgrading existing culvert crossing irrigation canal from 2-6'x4' RCB to 4-6'x4' RCB.

# Study Type

- ☐ Flood risk modeling/mapping
- ✓ Flood mitigation study

- ✓ Alternative Analysis□ Feasibility Assessments
- $\ \square$  Flood preparedness studies

# Study Area

City/ Cities Eagle Pass

County/ Counties Maverick

HUC 8 13080001,

13080002

HUC 12 130800020703,

130800020702

Study Area (sq. mi.) 0.03

# FOX COVE CIR FOX COVE CIR Add 2-6'x4' RCB to Existing Culvert Risk Area 13

# **Emergency Need**

Yes ✓ No 🗆

# **Known Flood Risk**

Critical Facilities Impacted

History of Flooding? Yes ✓ No □

Population at Risk

Roadways flooded Yes ✓ No □

Notes:

Agricultural Land impacted Yes □ No □

# **Study Costs**

Total Cost: \$27,225 Study Sponsor: City of Eagle Pass Estimated year to start: Entity with Oversight Time to complete? Included in a Hazard Mitigation Action Plan or other plan? City of Eagle Pass View ✓ No □

Funding Dedicated? Yes  $\ \square$  No  $\ \checkmark$  (Potential) Source of Funding FIF, local

Yes □ No □

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes □ No 🗸





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	S ✓ No□	· u	10.0021
	as the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB Yes ✔ No 🗆
	as the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		• • •
Re	lated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

# **RFPG Recommended**





Risk Area 15 Trib 3 Detention at Main Street FME ID: 151000089

# **FME Description**

Study includes constructing 10 acre detention pond (29 ac-ft volume) along East Channel north of Highway 277 and installing flapgates at flume outfalls on Omar Drive and Jana Drive, to prevent more frequent stormwater from backing up into the neighborhood on the west side of the channel.

# **Study Type**

- ☐ Flood risk modeling/mapping
- ✓ Flood mitigation study

- ✓ Alternative Analysis
- □ Feasibility Assessments
- ☐ Flood preparedness studies

# Study Area

City/ Cities Eagle Pass

County/ Counties Maverick

HUC 8 13080001,

13080002

HUC 12 130800020703,

130800020702

Study Area (sq. mi.) 0.05

# **Emergency Need**

Yes ✓ No 🗆

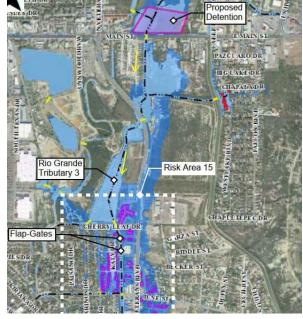
# **Known Flood Risk**

History of Flooding? Yes ✓ No □

Population at Risk

Roadways flooded Yes ✓ No □

Critical Facilities Impacted Yes □ No □



Agricultural Land impacted Yes 
No

# **Study Costs**

Notes:

Total Cost: \$124,245 Study Sponsor: City of Eagle Pass Estimated year to start: Entity with Oversight City of Eagle Pass Time to complete? Included in a Hazard Mitigation Action Plan or other plan? City of Eagle Pass Yes ✓ No □

Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding FIF, local

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes □ No ✓





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

	✓ No□	· u	10.0021
	s the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Re	ated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

# RFPG Recommended





Risk Area 2 Treasure Hills

FME ID: 151000090

# **FME Description**

Study includes constructing a 4' deep trapezoidal concrete channel with 8' bottom width and 2:1 side slopes, from detention pond outfall to existing culverts.

# Study Type

- ☐ Flood risk modeling/mapping
- ✓ Flood mitigation study

- ✓ Alternative Analysis□ Feasibility Assessments
- $\hfill\Box$  Flood preparedness studies

# Study Area

City/ Cities Eagle Pass
County/ Counties Maverick

HUC 8 13080001,

13080002

HUC 12 130800020703,

130800020702

Study Area (sq. mi.) 0.06

# 

Yes □ No □

FIF, local

# **Emergency Need**

Yes ✓ No 🗆

# **Known Flood Risk**

History of Flooding?

Population at Risk

Roadways flooded

Yes ✓ No □ Frequency of flooding:

# of structures inundated

Miles inundated?

Yes □ No □ Agricultural Land impacted

Yes □ No ✓

Notes:

# **Study Costs**

Total Cost: \$89,595 Study Sponsor: City of Eagle Pass Estimated year to start: Entity with Oversight Time to complete? Included in a Hazard Mitigation Yes ✓ No □

Action Plan or other plan?

(Potential) Source of Funding

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes □ No ✓

**Funding Dedicated?** 



Yes ✓ No 🗆



Flood Mitigation Evaluations Fact Sheet

Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

# **RFPG Recommended**





Risk Area 3 Arrow Point Boulevard

FME ID: 151000091

# **FME Description**

Study includes constructing small retaining wall at downstream of flume outfall to force flow towards Stone Way and constructing a 2' wide and 6" deep concrete flume from existing flume outfall to Stone Way.

# Study Type

- ☐ Flood risk modeling/mapping
- ✓ Flood mitigation study

- ✓ Alternative Analysis
- ☐ Feasibility Assessments
- ☐ Flood preparedness studies

# Study Are

City/ Cities Eagle Pass
County/ Counties Maverick

HUC 8 13080001,

13080002

HUC 12 130800020703,

130800020702

Study Area (sq. mi.) 0.02

# Proposed Channel Widening STONE HEDGE STREET A STREET A STREET A

# **Emergency Need**

Yes ✓ No 🗆

# **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency of flooding:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

# **Study Costs**

Notes:

Total Cost: \$7,920 Study Sponsor: City of Eagle Pass Estimated year to start: Entity with Oversight City of Eagle Pass Time to complete? Included in a Hazard Mitigation Action Plan or other plan? City of Eagle Pass Ves ✓ No □

Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding FIF, local

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes □ No 🗸





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes ✓ No □

	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✔ No 🗆
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remove		
Rel	ated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and
	program Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		provide timely warning of impending flood danger Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

# **RFPG Recommended**





# Risk Area 4 Bibb & Misty Willow storm drain

FME ID: 151000092

# **FME Description**

Study includes installing 6'x4' RCB along Misty Willow Drive from N Bibb Avenue to existing channel between N Bibb Avenue and Timber Valley and installing curb inlets on N Bibb Avenue and Misty Willow Drive.

# Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- Study Area

City/ Cities Eagle Pass

County/ Counties Maverick

HUC 8 13080001,

13080002

HUC 12 130800020703,

130800020702

Study Area (sq. mi.) 0.02

# **Emergency Need**

Yes ✓ No 🗆

# ✓ Alternative Analysis

□ Feasibility Assessments

☐ Flood preparedness studies



# Known Flood Risk

History of Flooding?

Population at Risk

Roadways flooded

Yes ✓ No □

Wiles inundated

Yes □ No □

Notes:

Frequency of flooding:

# of structures inundated

Miles inundated?

Agricultural Land impacted Yes □ No □

No □

Agricultural Land impacted Yes □ No □

# **Study Costs**

Total Cost: \$47,520 Study Sponsor: City of Eagle Pass Estimated year to start: Entity with Oversight Time to complete? Included in a Hazard Mitigation Action Plan or other plan? Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding FIF, local

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes □ No 🗸



Yes ✓ No 🗆



Flood Mitigation Evaluations Fact Sheet

Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

	is the project missing sufficient data to assess whether the prop delines?	osec	I project has a negative effect, per TWDB	Yes ✓	No □
	is the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			Yes ✓	No 🗆
Rel	lated Goals				
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher minimum standards	er than NI	FIP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stor management plan	rmwater a	asset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stregion	ream) in t	the
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi- CIP list	year draii	nage
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate N Service and USGS Texas Water Science Ce flood warning system information into the capabilities to disseminate warnings	enter (TXV	
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk re	eduction r	orojects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning response program that can detect the floor provide timely warning of impending floor	od threat	
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned la that can be utilized for future regional sto infrastructure		0
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain mar increasing the # of them that are certified Floodplain Managers (CFM) with the Texa Management Association	d as Certif	ied
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Fencouraging Region 15 floodplain manage to incorporate dedicated drainage fees to	ement pro	ograms
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate nonco penalties; and who regulate development	omplianc	е

conditions floodplain

# **RFPG Recommended**





FME ID: 151000093 Risk Area 5 Debona Drive

# **FME Description**

Study includes constructing a 5' deep trapezoidal channel approximately 30 feet wide with 3:1 side slopes and a 5' concrete pilot channel, replacing Juarez Street culvert with 8'x4' box culvert, and realigning existing channel to provide additional distance from homes.

# Study Type

- ☐ Flood risk modeling/mapping ✓ Flood mitigation study
- ✓ Alternative Analysis □ Feasibility Assessments
- ☐ Flood preparedness studies

# Study Area

City/ Cities Eagle Pass

County/ Counties Maverick

> HUC 8 13080001,

> > 13080002

**HUC 12** 130800020703,

130800020702

Study Area (sq. mi.) 0.02

# **Emergency Need**

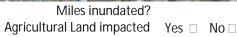
Yes ✓ No 🗆

# **Known Flood Risk**

History of Flooding? Yes ✓ No □ Population at Risk Roadways flooded Yes ✓ No 🗆

Critical Facilities Impacted Yes □ No □

Notes:



# Study Costs

**Total Cost:** \$53,955 Study Sponsor: City of Eagle Pass Estimated year to start: Entity with Oversight City of Eagle Pass Time to complete? Included in a Hazard Mitigation Yes ✓ No 🗆

Action Plan or other plan?

(Potential) Source of Funding **Funding Dedicated?** Yes □ No ✓ FIF, local

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes □ No ✓

Proposed Channel	THE WAS THE STATE OF THE STATE	BOTHNER WE
Widening	Project removes flooding of intersection	Eagle Pass Creek Tributary 2
Proposed 8'x4' RCB	JUANEZ (ST	





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

	No □	ı uı	10 302.
	s the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB Yes ✔ No 🗆
	is the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		•
Rel	ated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water		Increase use of nature-based flood risk reduction projects.  Develop a regionally coordinated warning and emergency
Ш	reuse applications or as part of a floodplain management program		response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs
	routes, and shelter locations Reduce the # of structures that have been subject to repeated flooding events through property buyouts		to incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

# **RFPG Recommended**





☐ Flood preparedness studies

# Risk Area 6 Trib 2 bypass & detention at Eagle Pass High School fields

FME ID: 151000094

# **FME Description**

Study includes bypassing flow from Golfcrest Drive to the detention pond with 1-6'x4', RCB Modifying outfall structure from 2-5'x3' RCB to 1-5'x3' RCB, and Lowering existing baseball field by 3 ft to provide an additional 30 ac-ft of storage.

✓ Alternative Analysis

□ Facaibility Assassments

# Study Type

- ☐ Flood risk modeling/mapping✓ Flood mitigation study
- Study Area

City/ Cities Eagle Pass

County/ Counties Maverick

HUC 8 13080001,

13080002

HUC 12 130800020703,

130800020702

Study Area (sq. mi.) 0.10

# **Emergency Need**

Yes ✓ No □

# **Known Flood Risk**

History of Flooding?

Population at Risk

Roadways flooded

Yes ✓ No □

# of structures inundated

Miles inundated?

Yes □ No □

Agricultural Land impacted

Notes:

# **Study Costs**

Total Cost: \$143,550 Study Sponsor: City of Eagle Pass Estimated year to start: Entity with Oversight Time to complete? Included in a Hazard Mitigation Action Plan or other plan? Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding FIF, local

# Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes □ No ✓

reasibility Assessine	11172		
	BOEHMERAVE	NETHINGS GLASSING	Madestiand by
BI CALLEYAVE	BOWLES WE	GOLFERESTOR  1,670 LF flood wall addition  Proposed 6'x4' RCB	CHANDE
(ST CAREZST			
HIDAUSO ST  Eagle Pass Creek Tributary 2	Isrhy	Proposed Detention with Outfall Modified	cation
25 ts (0.00 st 25			Eagle Pass High School

Yes □ No □





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

002			
Yes	✓ No □		
	s the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rela	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
□ <b>✓</b>	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and
	program Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		provide timely warning of impending flood danger Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

# **RFPG Recommended**





# Risk Area 8 Tributary 2 channel widening near **Alexander Drive**

FME ID: 151000095

# **FME Description**

Study includes constructing a 3' deep trapezoidal channel with a 76' bottom width with 4:1 side slopes from Graves Elementary School to the confluence of existing channels and constructing a 4' deep trapezoidal channel with a 11' bottom width with 4:1 side slopes from confluence of existing channels to existing culvert at Kelso Drive.

# Study Type

- □ Flood risk modeling/mapping ✓ Flood mitigation study
- ✓ Alternative Analysis □ Feasibility Assessments
- ☐ Flood preparedness studies

# Study Area

City/ Cities **Eagle Pass** 

County/ Counties Maverick

> HUC 8 13080001,

> > 13080002

HUC 12 130800020703,

130800020702

Study Area (sq. mi.)



# **Emergency Need**

Yes ✓ No 🗆

#### Known Flood Risk

History of Flooding? Yes ✓ No □ Population at Risk Roadways flooded Yes ✓ No 🗆 Critical Facilities Impacted Yes □ No □ Notes:

Frequency of flooding: # of structures inundated Miles inundated?

Agricultural Land impacted Yes □ No □

# Study Costs

**Total Cost:** 12,045 Study Sponsor: City of Eagle Pass Estimated year to start: Entity with Oversight City of Eagle Pass Time to complete? Included in a Hazard Mitigation Yes ✓ No □ Action Plan or other plan? **Funding Dedicated?** (Potential) Source of Funding FIF, local

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes □ No ✓



Yes ✓ No 🗆



# Flood Mitigation Evaluations Fact Sheet

Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

	s the project missing sufficient data to assess whether the prop delines?	osec	I project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rela	ated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

### **RFPG Recommended**





FME ID: 151000096

# **Maverick County Master Drainage Study**

# **FME Description**

Develop Flood risk maps for the county of Maverick and develop CIP

·				
Study Type  ✓ Flood risk modeling ✓ Flood mitigation st			Iternative Analysis easibility Assessments	☐ Flood preparedness studies
Study Area City/ Cities			Insert snip of Lo	ocation Map here
County/ Counties HUC 8	Maverick 13080001, 13080002			·
HUC 12				
Study Area (sq. mi.)	768.49			
Emergency New Yes ✓ No □	ed			
Known Flood R History of Flooding?	'isk Yes ✓	No □	Frequency:	
Population at Risk Roadways flooded Critical Facilities Impa Notes:	Yes □	No 🗆 No 🗆	# of structures inundated Miles inundated? Agricultural Land impacted	Yes   No
Study Costs Total Cost: Estimated year to star Time to complete?		50,000	Study Sponsor: Entity with Oversight Included in a CIP or other plan?	Yes □ No ✓
Funding Dedicated?	Yes □	No ✓	(Potential) Source of Funding	

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes ✓ No 🗆





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	s ✓ No □				
	is the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB	Yes ✓	No 🗆
	is the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			Yes ✓	No 🗆
Rel	lated Goals				
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher minimum standards	er than Ni	FIP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stor management plan	mwater a	asset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/str	eam) in t	the
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi- CIP list	year draiı	nage
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate Na Service and USGS Texas Water Science Ce flood warning system information into the capabilities to disseminate warnings	nter (TXV	
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk re	duction p	orojects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning response program that can detect the floo provide timely warning of impending floo	od threat	and
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned latthat can be utilized for future regional sto infrastructure	nd in the	region
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain mar increasing the # of them that are certified Floodplain Managers (CFM) with the Texa Management Association	l as Certif	ied
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Fencouraging Region 15 floodplain manage to incorporate dedicated drainage fees to	ement pro	ograms
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate nonco penalties; and who regulate development	omplianc	е

conditions floodplain

# **RFPG Recommended**





FME ID: 151000097

# **Starr County Master Drainage Study**

# **FME Description**

Develop Flood risk maps for the county of Starr and develop CIP

Study Type  ✓ Flood risk modeling ✓ Flood mitigation st			✓ Alternative Analysis  ☐ Feasibility Assessments	☐ Flood preparedness studies
Study Area City/ Cities			Insert snip of Lo	ocation Map here
County/ Counties	Starr			
HUC 8	12110207,			
	12110208			
HUC 12				
Study Area (sq. mi.)	1232.38			
Emergency Ne	ed			
Yes ✓ No 🗆				
Known Flood R	Risk			
History of Flooding? Population at Risk	Yes	✓ No 🗆	Frequency: # of structures inundated	
Roadways flooded	Yes		Miles inundated?	
Critical Facilities Impa Notes:	cted Yes	No 🗆	Agricultural Land impacted	Yes □ No □
Study Costs				
Total Cost: Estimated year to star	·+·	\$250,000	Study Sponsor: Entity with Oversight	
Time to complete?	ι.		Included in a CIP or other plan?	Yes □ No ✓
Funding Dedicated?	Yes	□ No ✓	(Potential) Source of Funding	

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes ✓ No 🗆





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

162	▼ INO □		
	s the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB Yes $\checkmark$ No $\Box$
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

# **RFPG Recommended**





FME ID: 151000098

# Starr County Drainage District Master Drainage Study

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FIVI	H	D	escr	ınt	ION

Yes ✓ No 🗆

Develop Flood risk maps for the Starr County Drainage District and develop CIP

Study Type  ✓ Flood risk modeling ✓ Flood mitigation st				Alternative Analysis Feasibility Assessments	☐ Flood preparedness studies
Study Area City/ Cities				Insert snip of Lo	ocation Map here
County/ Counties	Starr				
HUC 8	12110207	,			
	12110208	}			
HUC 12					
Study Area (sq. mi.)	1232.34				
Emergency Need Yes ✓ No 🗆					
Known Flood Risl History of Flooding? Population at Risk Roadways flooded Critical Facilities Impa Notes:		Yes ✓ Yes □ Yes □	No 🗆	Frequency: # of structures inundated Miles inundated? Agricultural Land impacted	Yes □ No □
Study Costs  Total Cost: Estimated year to star Time to complete? Funding Dedicated?	t:	\$25 Yes 🗆	50,000 No <b>✓</b>	Study Sponsor: Entity with Oversight Included in a CIP or other plan? (Potential) Source of Funding	Yes □ No ✓





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes			
	s the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB Yes ✓ No □
	is the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the
	Decrease the average age of FEMA Flood Insurance Rate		region Increase the # of entities that have multi-year drainage
✓	Maps used to define SFHAs Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		CIP list Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and
	program Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		provide timely warning of impending flood danger Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### RFPG Recommended





FME ID: 151000099

# La Grulla Master Drainage Study

# **FME Description**

Yes ✓ No 🗆

Develop Flood risk maps for the city of La Grulla and develop CIP

·				, , , , , , , , , , , , , , , , , , ,			
Study Type  ✓ Flood risk modeling/mapping ✓ Flood mitigation study				Alternative Analysis Feasibility Assessments	☐ Flood preparedness studies		
Study Area							
City/ Cities	La Grulla		Insert snip of Location Map here				
County/ Counties	Starr						
HUC 8	12110207,						
	12110208						
HUC 12							
Study Area (sq. mi.)	0.94						
Emergency Need							
Yes ✓ No 🗆							
Known Flood R	isk						
History of Flooding? Population at Risk		✓	No 🗆	Frequency: # of structures inundated			
Roadways flooded			No □	Miles inundated?			
Critical Facilities Impa Notes:	cted Yes		No □	Agricultural Land impacted	Yes □ No □		
Study Costs							
		\$25	0,000	Study Sponsor: Entity with Oversight			
Estimated year to start: Time to complete?				Included in a CIP or other plan?	Yes □ No ✓		
Funding Dedicated? Yes			No <b>✓</b>	(Potential) Source of Funding			

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	s ✓ No □				
	is the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB	Yes ✓	No 🗆
	is the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			Yes ✓	No 🗆
Rel	lated Goals				
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher minimum standards	er than Ni	FIP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stor management plan	mwater a	asset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/str	eam) in t	the
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi- CIP list	year draiı	nage
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate Na Service and USGS Texas Water Science Ce flood warning system information into the capabilities to disseminate warnings	nter (TXV	
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk re	duction p	orojects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning response program that can detect the floo provide timely warning of impending floo	od threat	and
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned latthat can be utilized for future regional sto infrastructure	nd in the	region
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain mar increasing the # of them that are certified Floodplain Managers (CFM) with the Texa Management Association	l as Certif	ied
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Fencouraging Region 15 floodplain manage to incorporate dedicated drainage fees to	ement pro	ograms
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate nonco penalties; and who regulate development	omplianc	е

conditions floodplain

# **RFPG Recommended**





FME ID: 151000100

# Roma Master Drainage Study

# **FME Description**

Develop Flood risk maps for the city of Roma and develop CIP

	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
Study Type  ✓ Flood risk modeling ✓ Flood mitigation st			Alternative Analysis Feasibility Assessments	☐ Flood preparedness studies		
Study Area City/ Cities Roma		Insert snip of Location Map here				
County/ Counties HUC 8	Starr 12110207, 12110208					
HUC 12	5.98					
Study Area (sq. mi.)	5.70					
Emergency Nec Yes ✓ No □	ed					
Known Flood R History of Flooding? Population at Risk Roadways flooded Critical Facilities Impa Notes:	Yes ✓ Yes □	No □	Frequency: # of structures inundated Miles inundated? Agricultural Land impacted	Yes □ No □		
Study Costs  Total Cost: Estimated year to star Time to complete? Funding Dedicated?		50,000 No <b>✓</b>	Study Sponsor: Entity with Oversight Included in a CIP or other plan? (Potential) Source of Funding	Yes □ No ✓		

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)

Yes ✓ No 🗆





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □		
	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

# **RFPG Recommended**





FME ID: 151000101

# **Escobares Master Drainage Study**

# **FME Description**

Develop Flood risk maps for the city of Escobares and develop CIP

	,			
Study Type  ✓ Flood risk modeling ✓ Flood mitigation st			✓ Alternative Analysis  ☐ Feasibility Assessments	☐ Flood preparedness studies
Study Area City/ Cities	Escobares		Insert snip of Lo	ocation Map here
County/ Counties	Starr			
HUC 8	12110207,			
HUC 12	12110208			
Study Area (sq. mi.)	2.73			
Emergency Need  Yes ✓ No□				
Known Flood R History of Flooding?	risk Yes ✓	No 🗆	Frequency:	
Population at Risk Roadways flooded Critical Facilities Impa Notes:	Yes □ cted Yes □		# of structures inundated Miles inundated? Agricultural Land impacted	Yes □ No □
Study Costs  Total Cost: \$25  Estimated year to start: Time to complete? Funding Dedicated? Yes		50,000	Study Sponsor: Entity with Oversight	
		No <b>✓</b>	Included in a CIP or other plan? (Potential) Source of Funding	Yes □ No ✓

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

162	▼ INO □		
	s the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB Yes $\checkmark$ No $\Box$
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### **RFPG Recommended**





FME ID: 151000102

#### **Rio Grande City Master Drainage Study**

#### **FME Description**

Develop Flood risk maps for the city of Rio Grande City and develop CIP

Develop Flood Fisk IIIa	Develop Flood Fisk maps for the city of kilo Grande city and develop cir							
Study Type  ✓ Flood risk modeling ✓ Flood mitigation st			Alternative Analysis easibility Assessments	☐ Flood preparedness studies				
Study Area City/ Cities County/ Counties	Rio Grande City Starr		Insert snip of Lo	ocation Map here				
HUC 8	12110207,							
	12110208							
HUC 12								
Study Area (sq. mi.)	11.38							
<b>Emergency Ne</b>	ed							
Yes ✓ No 🗆								
Known Flood R	isk							
History of Flooding? Population at Risk	Yes ✓	No □	Frequency: # of structures inundated					
Roadways flooded	Yes □		Miles inundated?					
Critical Facilities Impa Notes:	cted Yes □	No □	Agricultural Land impacted	Yes □ No □				
Study Costs								
Total Cost:		50,000	Study Sponsor:					
Estimated year to star Time to complete?	t:		Entity with Oversight Included in a CIP or other plan?	Yes □ No ✓				
Funding Dedicated?	Yes □	No <b>✓</b>	(Potential) Source of Funding					

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	s ✓ No □				
	is the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB	Yes ✓	No 🗆
	is the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			Yes ✓	No 🗆
Rel	lated Goals				
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher minimum standards	er than Ni	FIP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stor management plan	mwater a	asset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/str	eam) in t	the
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi- CIP list	year draiı	nage
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate Na Service and USGS Texas Water Science Ce flood warning system information into the capabilities to disseminate warnings	nter (TXV	
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk re	duction p	orojects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning response program that can detect the floo provide timely warning of impending floo	od threat	and
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned latthat can be utilized for future regional sto infrastructure	nd in the	region
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain mar increasing the # of them that are certified Floodplain Managers (CFM) with the Texa Management Association	l as Certif	ied
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Fencouraging Region 15 floodplain manage to incorporate dedicated drainage fees to	ement pro	ograms
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate nonco penalties; and who regulate development	omplianc	е

conditions floodplain

#### **RFPG Recommended**





FME ID: 151000124

#### Val Verde County Master Drainage Study

### FME Description

Develop Flood risk maps for the county of Val Verde and develop CIP							
Study Type  ✓ Flood risk modeling ✓ Flood mitigation stu				Alternative Analysis Feasibility Assessments	☐ Flood preparedness studies		
Study Area City/ Cities				Insert snip of Lo	ocation Map here		
County/ Counties	Val Verde						
HUC 8	13080001						
HUC 12							
Study Area (sq. mi.)	349.71						
Emergency Nee Yes ✓ No □	ed						
Known Flood R	isk						
History of Flooding? Population at Risk Roadways flooded Critical Facilities Impac Notes:		Yes ✓ Yes □ Yes □	No 🗆 No 🗆	Frequency: # of structures inundated Miles inundated? Agricultural Land impacted	Yes □ No □		
Study Costs  Total Cost: Estimated year to start	t:	\$50	00,000	Study Sponsor: Entity with Oversight	Voc □ No (		
Time to complete? Funding Dedicated?		Yes 🗆	No <b>✓</b>	Included in a CIP or other plan? (Potential) Source of Funding	Yes □ No ✓		

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

162	▼ INO □		
	s the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB Yes $\checkmark$ No $\Box$
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### **RFPG Recommended**





FME ID: 151000125

# Webb County Drainage District #1 Master Drainage Study

#### **FME Description**

Develop Flood risk maps for the Webb County Drainage District #1 and develop CIP

Study Type  ✓ Flood risk modelin  ✓ Flood mitigation st			Alternative Analysis Feasibility Assessments	☐ Flood preparedness studies
Study Area City/ Cities			Insert snip of Lo	ocation Map here
County/ Counties	Webb			
HUC 8	13080002			
HUC 12				
Study Area (sq. mi.)	9.12			
Emergency Ne Yes ✓ No □	ed			
Known Flood R History of Flooding? Population at Risk Roadways flooded Critical Facilities Impa Notes:	Yes ✓ Yes □	No 🗆 No 🗆	Frequency: # of structures inundated Miles inundated? Agricultural Land impacted	Yes □ No □
Study Costs Total Cost: Estimated year to star Time to complete? Funding Dedicated?		00,000 No <b>✓</b>	Study Sponsor: Entity with Oversight Included in a CIP or other plan? (Potential) Source of Funding	Yes □ No ✓

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □		
	s the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### **RFPG Recommended**





FME ID: 151000127

#### Rio Bravo Master Drainage Study

#### **FME Description**

Develop Flood risk maps for the city of Rio Bravo and develop CIP							
Study Type  ✓ Flood risk modeling ✓ Flood mitigation st			Alternative Analysis Feasibility Assessments	☐ Flood preparedness studies			
Study Area City/ Cities County/ Counties HUC 8 HUC 12 Study Area (sq. mi.)	Rio Bravo Webb 13080002		Insert snip of Lo	ocation Map here			
Emergency Nev Yes ✓ No □	ed						
Known Flood R History of Flooding? Population at Risk Roadways flooded Critical Facilities Impa Notes:	Yes ✓ Yes □	No □ No □ No □	Frequency: # of structures inundated Miles inundated? Agricultural Land impacted	Yes □ No □			
Study Costs  Total Cost: Estimated year to star Time to complete? Funding Dedicated?	rt: Yes □		Study Sponsor: Entity with Oversight Included in a CIP or other plan? (Potential) Source of Funding	Yes □ No ✓			
Study identified	d as a gap by	/ Regic	on 15 Regional Flood Pla	anning Group (RFPG)			





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □				
	s the project missing sufficient data to assess whether the prop delines?	oseo	I project has a negative effect, per TWDB	Yes ✓	No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			Yes ✓	No □
Rel	ated Goals				
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher minimum standards	than Ni	FIP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational storn management plan	nwater a	asset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stre	am) in t	he
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-ye CIP list	ear drair	nage
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate Na Service and USGS Texas Water Science Cen flood warning system information into the capabilities to disseminate warnings	iter (TXV	
	Increase participation in the regional flood planning process Provide regional detention that could be used for water		Increase use of nature-based flood risk red Develop a regionally coordinated warning a	•	-
	reuse applications or as part of a floodplain management program		response program that can detect the flood provide timely warning of impending flood	d threat	
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned lanthat can be utilized for future regional stor infrastructure	d in the	region
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain mana- increasing the # of them that are certified a Floodplain Managers (CFM) with the Texas Management Association	as Certif	
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Ra encouraging Region 15 floodplain manager to incorporate dedicated drainage fees to i	ment pro	ograms
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncorpenalties; and who regulate development i		

conditions floodplain

#### **RFPG Recommended**

Yes v No





FME ID: 151000128

#### El Cenizo Master Drainage Study

#### **FME Description**

Develop Flood risk maps for the city of El Cenizo and develop CIP							
Study Type  ✓ Flood risk modeling  ✓Flood mitigation stud			Iternative Analysis easibility Assessments	☐ Flood preparedness studies			
Study Area City/ Cities County/ Counties HUC 8 HUC 12 Study Area (sq. mi.)	El Cenizo Webb 13080002		Insert snip of Lo	ocation Map here			
Emergency Nee Yes ✓ No □	ed						
Known Flood R History of Flooding? Population at Risk Roadways flooded Critical Facilities Impac Notes:	Yes ✓ Yes □	No 🗆 No 🗆	Frequency: # of structures inundated Miles inundated? Agricultural Land impacted	Yes □ No □			
Study Costs Total Cost: Estimated year to start Time to complete? Funding Dedicated?		50,000 No <b>✓</b>	Study Sponsor: Entity with Oversight Included in a CIP or other plan? (Potential) Source of Funding	Yes □ No ✓			

Study identified as a gap by Region 15 Regional Flood Planning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

162	▼ INO □		
	s the project missing sufficient data to assess whether the prop delines?	oseo	d project has a negative effect, per TWDB Yes $\checkmark$ No $\Box$
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### **RFPG Recommended**





FME ID: 151000130

#### City of Laredo Project 6

#### **FME Description**

Vidaurri Avenue Roadway Drainage Improvements to prevent future drainage in the area. Street improvements from Scott Street to Jefferson Street.

#### Study Type

- $\hfill \square$  Flood risk modeling/mapping
- ✓ Flood mitigation study

✓ Alternative Analysis

□ Flood preparedness studies

#### Study Area

City/ Cities Laredo

County/ Counties Webb

HUC 8 13080002

HUC 12 130800022405,

130800022610,

130800022611,

130800022612,

130800022801, 130800022802,

130800022804, 130800022805,

130800022809, 130800030208,

130800022806

Study Area (sq. mi.) 0.70



#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding?
Population at Risk
Roadways flooded
Critical Facilities Impacted

Yes ✓ No □ Yes □ No □ Frequency: # of structures inundated Miles inundated?

Agricultural Land impacted Yes  $\square$  No  $\square$ 

#### Study Costs

Notes:

Total Cost: \$330,000 Study Sponsor: Laredo





Estimated year to start: Entity with Oversight Laredo Time to complete? Included in a CIP or other plan? Yes  $\checkmark$  No  $\square$  Funding Dedicated? Yes  $\square$  No  $\checkmark$  (Potential) Source of Funding N/A

Fun	ding Dedicated?	Yes □ No ✓	(Potential) S	ource of Funding N/A				
	dy identified as a gap l □ No ✓	by Region 15 Regio	nal Floo	d Planning Group (RFPG)				
the guio 362	Region 15 Regional Fl dance for Regional Flo	ood Plan because i	t did me	ed as an Flood Mitigation Project et the minimum requirements, pe ns of Title 31 of TAQC Chapters 36	er TWDB			
Was	s the project missing sufficient dat	a to assess whether the prop	osed project	has a negative effect, per TWDB guidelines?	es ✓ No 🗆			
	Was the project recommended by the RFPG to be studied in order for it to provide more project details, such as a benefit cost ratio or the number of structures the project removes from the 100-year floodplain? Yes ✓ No □							
Rela	ated Goals							
✓	Increase community access route routes, during and after a flooding		tion 🗆	Increase the # of entities that adopt higher than N standards	FIP-minimum			
	Reduce the # of newly constructed within the existing and future 10		S	Develop and maintain an operational stormwater management plan	asset			
	Increase the # of communities pa Insurance Program		ood 🗆	Increase the # of flood gauges (rainfall/stream) in	the region			
	Decrease the average age of FEM used to define SFHAs	/IA Flood Insurance Rate Map	os 🗆	Increase the # of entities that have multi-year drain	nage CIP list			
	Increase the coverage of availabl studies with identified constructinated hazards			Increase the # of entities that integrate National W Service and USGS Texas Water Science Center (TXV warning system information into their local capabil disseminate warnings	WSC) flood			
	Increase participation in the regi Provide regional detention that capplications or as part of a flood	could be used for water reuse	e 🗆	Increase use of nature-based flood risk reduction povelop a regionally coordinated warning and emersponse program that can detect the flood threat timely warning of impending flood danger	ergency			
	Increase acreage of publicly prot		lood 🗆	Increase the amount of publicly owned land in the				
	risk areas that is reused for a ber Increase outreach and education municipal floodplain managers, havailable on the website	activities, specifically targeti		can be utilized for future regional stormwater infra Increase the proficiency of floodplain managers by the # of them that are certified as Certified Floodp (CFM) with the Texas Floodplain Management Ass	y increasing blain Managers			
	Increase the use reverse 911, TV billboards to communicate flood shelter locations	warnings, evacuation routes		Increase participation in the Community Rating Sy encouraging Region 15 floodplain management pr incorporate dedicated drainage fees to implement	ograms to t future FMEs			
	Reduce the # of structures that h	•	t	and FMPs; incorporate noncompliance penalties; a				

#### **RFPG Recommended**





FME ID: 151000131

#### Webb County Master Drainage Study

#### **FME Description**

Develop Flood risk maps for the cou	unty of \	Webb and develop CIP	
Study Type  ✓ Flood risk modeling/mapping ✓ Flood mitigation study		<ul><li>✓ Alternative Analysis</li><li>□ Feasibility Assessments</li></ul>	☐ Flood preparedness studies
Study Area City/ Cities		Insert snip of Lo	ocation Map here
County/ Counties Webb			
HUC 8 13080002			
HUC 12			
Study Area (sq. mi.) 1654.59			
Emergency Need Yes ✓ No □			
Known Flood Risk			
3	es ✓ N	No □ Frequency:	
Population at Risk Roadways flooded Y	'es □ N	# of structures inundated No  Miles inundated?	
			Yes □ No □
Study Costs			
Total Cost:	\$1,000,	,000 Study Sponsor:	
Estimated year to start: Time to complete?		Entity with Oversight Included in a CIP or other plan?	Yes □ No ✓
·	es 🗆 N	·	103 🗆 110 ,
Study identified as a ga	p by	Region 15 Regional Flood Pla	anning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □		
	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### **RFPG Recommended**





FME ID: 151000132

#### **Zapata County Master Drainage Study**

#### **FME Description**

Yes ✓ No 🗆

Develop Flood risk maps for the	county o	f Zapata a	and develop CIP	
Study Type  ✓ Flood risk modeling/mapping ✓ Flood mitigation study	}		Alternative Analysis Feasibility Assessments	☐ Flood preparedness studies
Study Area City/ Cities			Insert snip of Lo	ocation Map here
County/ Counties Zapata				
HUC 8				
HUC 12				
Study Area (sq. mi.) 150.03				
Emergency Need Yes ✓ No □				
Known Flood Risk				
History of Flooding? Population at Risk	Yes ✓	No $\square$	Frequency: # of structures inundated	
Roadways flooded Critical Facilities Impacted Notes:	Yes □ Yes □	No □ No □	Miles inundated? Agricultural Land impacted	Yes □ No □
Study Costs Total Cost: Estimated year to start:	\$25	50,000	Study Sponsor: Entity with Oversight	
Time to complete? Funding Dedicated?	Yes □	No <b>✓</b>	Included in a CIP or other plan? (Potential) Source of Funding	Yes □ No ✓
Study identified as a	gap by	/ Regio	on 15 Regional Flood Pla	anning Group (RFPG)

Page 1 of 2





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □		
	s the project missing sufficient data to assess whether the prop delines?	osec	d project has a negative effect, per TWDB Yes ✓ No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov		
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### **RFPG Recommended**





San Ygnacio MUD Master Drainage Study FME ID: 151000133

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Develop Flood risk maps for Sa	n Ygnacio I	MUD and o	develop CIP	
Study Type  ✓ Flood risk modeling/mappin ✓ Flood mitigation study	g		Alternative Analysis easibility Assessments	☐ Flood preparedness studies
Study Area City/ Cities County/ Counties Zapata HUC 8 HUC 12 Study Area (sq. mi.)			Insert snip of Lo	ocation Map here
Emergency Need Yes ✓ No □				
Known Flood Risk History of Flooding? Population at Risk Roadways flooded Critical Facilities Impacted Notes:	Yes ✓ Yes □ Yes □	No 🗆 No 🗆	Frequency: # of structures inundated Miles inundated? Agricultural Land impacted	Yes □ No □
Study Costs  Total Cost: Estimated year to start: Time to complete? Funding Dedicated?	Yes □		Study Sponsor: Entity with Oversight Included in a CIP or other plan? (Potential) Source of Funding	Yes □ No ✓
Study identified as a	gap by	/ Regio	n 15 Regional Flood Pla	anning Group (RFPG)





Study identified because project could not be included as an Flood Mitigation Project (FMP) in the Region 15 Regional Flood Plan because it did meet the minimum requirements, per TWDB guidance for Regional Flood Planning or the provisions of Title 31 of TAQC Chapters 361 and 362.

Yes	✓ No □				
	s the project missing sufficient data to assess whether the prop delines?	oseo	I project has a negative effect, per TWDB	Yes ✓	No □
	s the project recommended by the RFPG to be studied in order enefit cost ratio or the number of structures the project remov			Yes ✓	No 🗆
Rel	ated Goals				
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt highe minimum standards	r than NI	FIP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stori management plan	mwater a	asset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stregion	eam) in t	he
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-y CIP list	/ear draiı	nage
✓	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate Na Service and USGS Texas Water Science Cer flood warning system information into the capabilities to disseminate warnings	nter (TXV	
	Increase participation in the regional flood planning process Provide regional detention that could be used for water		Increase use of nature-based flood risk red Develop a regionally coordinated warning		-
	reuse applications or as part of a floodplain management program		response program that can detect the floo provide timely warning of impending floor	od threat	
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned lar that can be utilized for future regional stor infrastructure	nd in the	
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain man increasing the # of them that are certified Floodplain Managers (CFM) with the Texas Management Association	as Certif	ied
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community R encouraging Region 15 floodplain manage to incorporate dedicated drainage fees to	ment pro	ograms
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate nonco penalties; and who regulate development		

conditions floodplain

#### **RFPG Recommended**





#### Rgc Public Works, Escobares City, And Starr **Public Works Roadway Improvements**

FME ID: 151000103

#### **FME Description**

Improve Roadways, By Widening And Raising, And Create Drainage Culverts Or Bridges. (Morenos Creek And Garceno Creek) (Kelsey Creek, Rio Grande City)

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✓ Flood risk modeling ✓ Flood mitigation st		<ul><li>✓ Alternative Analysis</li><li>□ Feasibility Assessments</li></ul>	☐ Flood preparedness studies
Study Area City/ Cities			
County/ Counties	STARR		
HUC 8	12110207,		
	13090001		
HUC 12	121102070100,		
	130900011301,		
	130900011302,		
	130900011304,		
	130900011202,		
	130900011203, 13	30900011204, 130900011401,	
	130900011402, 13	30800031007, 130800031011,	
	130900011102, 13	30900011103, 130900011110,	
	130900011403, 13	30900011501, 130900011502,	
	130900011601, 13	30900011603, 130900011604,	
	130900011605, 13	30900011606, 130900011607,	
	130900011701, 13	30900011702, 130900011703,	
	130900011704, 13	30900011705, 130900011706,	
	130900011107, 13	0900011109, 130900011112	

Study Area (sq. mi.)





Emergency	Need
-----------	------

	,	
Yes	✓	No□

Known Flood Risk			_		
History of Flooding? Population at Risk	Yes ✓ No 🗆	# of structur	Frequency: res inundated		
Roadways flooded	Yes ✓ No 🗆		es inundated?		
Critical Facilities Impacted	Yes □ No □	Agricultural La	and impacted	Yes □ No □	
Notes:					
Study Costs					
Total Cost:	\$528,000	St	tudy Sponsor:	Starr County	
Estimated year to start:	**==1,***		vith Oversight	Starr County	
Time to complete?		Included in a CIP of	or other plan?	Yes □ No □	
Funding Dedicated?	Yes □ No ✓	(Potential) Sour	ce of Funding	TDA/Local	
Study identified as a	a gap by Region	15 Regional	l Flood Pla	anning Group (RF	PG)
Study identified bed	cause project co	ould not be i	ncluded a	s an Flood Mitig	ation
•				•	
Project (FMP) in the	e Region 15 Reg	ionai Fiood i	Pian beca	use it ala meet ti	ne
minimum requirem	ents, per TWDE	guidance fo	or Region	al Flood Planning	or the
provisions of Title 3	1 of TAOC Char	oters 361 and	d 362.		
Yes ✓ No 🗆					
Was the project missing suffice guidelines?	cient data to assess whe	ther the proposed p	oroject has a ne	egative effect, per TWDB	Yes ✓ No 🗆
Was the project recommende	ed by the RFPG to be stu	died in order for it	to provide mor	e project details, such as	Yes ✓ No 🗆
a benefit cost ratio or the nur					103
Related Goals					
			l	-£!!!: th-st   -	an than NEID
✓ Increase community acceed evacuation routes, during			increase the #   minimum stand	of entities that adopt high	er than NFIP-
☐ Reduce the # of newly co				aintain an operational sto	rmwater asset
facilities within the existing			management p		mater deser
☐ Increase the # of commu				of flood gauges (rainfall/st	ream) in the
Flood Insurance Program			region		
☐ Decrease the average age				of entities that have multi-	year drainage
Maps used to define SFH.  Increase the coverage of			CIP list Increase the # :	of entities that integrate N	lational Woaths
<ul> <li>Increase the coverage of completing studies with i</li> </ul>				GS Texas Water Science Ce	
address flooding hazards		,		system information into th	, ,

capabilities to disseminate warnings



# **FME**

#### Flood Management Evaluations Fact Sheet

Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program	Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use	Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations	Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
Reduce the # of structures that have been subject to repeated flooding events through property buyouts	future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**

Yes □ No ✓







#### Alton MDP - West Mile 5 Road and Louisiana **Street Alternative 2**

#### FMP ID: 153000001

#### **FMP Description**

Alternative 2 is designed to remove structures from the 10-year floodplain. Approximately 35 acre-feet of volume is proposed to be excavated. construction consists of 1,940 LF of 36-inch diameter pipe sloped at 0.2% along Louisiana, Kentucky, and Trosper Road out falling directly into the retention pond, 3 headwalls and approximately 9 inlets. Additional inlets and smaller pipe may be needed to catch low lying areas that pond between the houses or regrading with swales to take runoff to the street.

#### Project Type

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- Infrastructure

#### Project Area

City/ Cities

County/ Counties Hidalgo

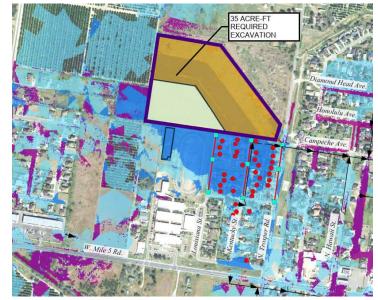
> HUC 8 12110207,

> > 12110208

HUC 12 121102080200,

121102080300

Study Area (sq. mi.) N/A



FIF, local

#### **Emergency Need**

Yes ✓ No □

#### Known Flood Risk

History of Flooding? Frequency of flooding: No □ Population at Risk # of structures inundated Roadways flooded No □ Miles inundated? Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □ Notes:

#### **Project Costs**

Total Cost: \$2,152,656 Study Sponsor: City of Alton Non-reoccurring Non-capital These are one-time costs for program development, education campaign, and non-Cost (include in Total above): engineering study costs. Estimated year to start: **Entity with Oversight** City of Alton Yes ✓ No 🗆 Time to complete? Included in a Hazard Mitigation

> Action Plan or other plan? (Potential) Source of Funding

Funding Dedicated? Yes □ No ✓





#### Have the flood risk and flood reduction impacts been evaluated?

Have the flood risk and flood reduction impacts been evaluated?		Yes □ No ✓
Does the project have any negative effects, per TWDB guidelines?		Yes □ No □ Unknown ✓
Does the project have a Benefit Cost Ratio greater than 1?		Yes □ No □ Unknown ✓
Doe	es the project reduce flood risk for the 100-Yr flood event?	Yes □ No □ Unknown ✓
Doe	es the Project provide a Water Supply Benefit?	Yes □ No ✓
Has all the ROW been acquired?		Yes □ No □
Will permits or interlocal agreements be needed for this project?		Yes □ No □
Rel	ated Goals	
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities	Develop and maintain an operational stormwater asset
	within the existing and future 100-YR floodplain Increase the # of communities participating in the National Flood Insurance Program	management plan Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs	Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards	Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
□ <b>✓</b>	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program	Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use	Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers
	available on the website Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations	(CFM) with the Texas Floodplain Management Association Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement future FMEs
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts	and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**

Yes □ No ✓





#### Alton MDP - FM 676 South Glasscock Road Alternative 3

#### FMP ID: 153000002

#### **FMP Description**

Widening of FM 676 with a proposed storm drain system containing 54" reinforced concrete pipe.

#### **Project Type**

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- Infrastructure

#### **Project Area**

City/ Cities

County/ Counties Hidalgo

> HUC 8 12110207,

> > 12110209

HUC 12 121102080200,

121102080300

Study Area (sq. mi.) N/A

#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding? Frequency of flooding: No □ Population at Risk # of structures inundated Roadways flooded No□ Miles inundated? Yes ✓

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

above):

#### **Project Costs**

**Total Cost:** \$387,288 Study Sponsor: City of Alton

Non-reoccurring Non-These are one-time costs for program development, education campaign, and capital Cost (include in Total non-engineering study costs.

**Entity with Oversight** City of Alton Included in a Hazard Mitigation Yes ✓ No 🗆

Page 1 of 2

Estimated year to start: Time to complete?





Action Plan or other plan?
Funding Dedicated?

Yes □ No ✓ (Potential) Source of Funding FIF, local

Fun	ding Dedicated? Yes □ No ✓	(Potential) So	ource of Funding FIF, local
	ve the flood risk and flood reduct		cts been evaluated?
Hav	e the flood risk and flood reduction impacts been e	valuated?	Yes □ No ✓
Doe	es the project have any negative effects, per TWDB (	juidelines?	Yes □ No □ Unknown ✓
Doe	es the project have a Benefit Cost Ratio greater than	1?	Yes □ No □ Unknown ✓
Doe	es the project reduce flood risk for the 100-Yr flood	event?	Yes □ No □ Unknown ✓
Doe	es the Project provide a Water Supply Benefit?		Yes □ No ✓
Has	all the ROW been acquired?		Yes □ No □
Will	permits or interlocal agreements be needed for thi	s project?	Yes □ No □
Rel	ated Goals		
✓	Increase community access routes to critical facilit		Increase the # of entities that adopt higher than NFIP-
	evacuation routes, during and after a flooding ever Reduce the # of newly constructed vulnerable criti-		minimum standards Develop and maintain an operational stormwater asset
	facilities within the existing and future 100-YR floo	dplain	management plan
	Increase the # of communities participating in the Flood Insurance Program	National $\square$	Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance	e Rate 🗆	Increase the # of entities that have multi-year drainage
	Maps used to define SFHAs		CIP list
	Increase the coverage of available flood hazard dar completing studies with identified construction pro		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC)
	address flooding hazards	<i>J</i> 0013 10	flood warning system information into their local
	Increase portionation in the regional flood planning	~ ~ ~ ~ ~ ~ ~	capabilities to disseminate warnings
	Increase participation in the regional flood plannin Provide regional detention that could be used for v		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency
	reuse applications or as part of a floodplain manag		response program that can detect the flood threat and
	program	in critical -	provide timely warning of impending flood danger Increase the amount of publicly owned land in the region
	Increase acreage of publicly protected open space flood risk areas that is reused for a beneficial publi		that can be utilized for future regional stormwater
			infrastructure
	Increase outreach and education activities, specific targeting municipal floodplain managers, hosted b		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified
	15 RFPG and available on the website	y region	Floodplain Managers (CFM) with the Texas Floodplain
	Lancas III.	'	Management Association
	Increase the use reverse 911, TV, radio, social med billboards to communicate flood warnings, evacua		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs
	routes, and shelter locations		to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject		future FMEs and FMPs; incorporate noncompliance
	repeated flooding events through property buyout	3	penalties; and who regulate development in the future conditions floodplain
			•

#### **RFPG Recommended**

Yes □ No ✓





#### Alton MDP - North Inspiration Road and West St. Jude Avenue Alternative 2

#### FMP ID: 153000003

#### **FMP Description**

Alternative 2, is designed to remove structures from the 25-year floodplain and more frequent storms. This alternative consists of upsizing the storm drain under West St Jude Avenue. The trunk line will consist of 1,900 LF of a single 7' X 5' reinforced concrete box sloped at 0.5% from the area just west of the neighborhood on W. St. Jude Avenue to the West Main Drain Channel, downstream (north) of the existing 10' X 7' box culvert.

#### Project Type

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- Infrastructure

#### Project Area

City/ Cities

County/ Counties Hidalgo

> HUC 8 12110207,

> > 12110210

HUC 12 121102080200,

121102080300

Study Area (sq. mi.) N/A

# PROPOSED DETENTION POND PROPOSED BERM 1,900 LF)

Yes □ No □

#### **Emergency Need**

Yes ✓ No 🗆

#### Known Flood Risk

History of Flooding? Yes Population at Risk Roadways flooded No □ Yes ✓ Critical Facilities Impacted Agricultural Land impacted Yes 🗆 No □

Notes:

#### Total Cost: City of Alton \$2,817,936 Study Sponsor:

These are one-time costs for program development, education campaign, and nonengineering study costs. **Entity with Oversight** City of Alton

> Included in a Hazard Mitigation Yes ✓ No 🗆 Action Plan or other plan?

Miles inundated?

(Potential) Source of Funding Yes □ No ✓ FIF, local

**Project Costs** 

Non-reoccurring Non-capital Cost (include in Total above): Estimated year to start: Time to complete?

Funding Dedicated?



Yes □ No ✓



#### Have the flood risk and flood reduction impacts been evaluated?

Have the flood risk and flood reduction impacts been evaluated?	Yes □ No ✓
Does the project have any negative effects, per TWDB guidelines?	Yes □ No □ Unknown ✓
Does the project have a Benefit Cost Ratio greater than 1?	Yes □ No □ Unknown ✓
Does the project reduce flood risk for the 100-Yr flood event?	Yes □ No □ Unknown ✓
Does the Project provide a Water Supply Benefit?	Yes □ No ✓
Has all the ROW been acquired?	Yes □ No □
Will permits or interlocal agreements be needed for this project?	Yes □ No □
Related Goals	
✓ Increase community access routes to critical facilities, evacuation	$\hfill \square$ Increase the # of entities that adopt higher than NFIP-minimum
routes, during and after a flooding event  Reduce the # of newly constructed vulnerable critical facilities	standards  Develop and maintain an operational stormwater asset
within the existing and future 100-YR floodplain  Increase the # of communities participating in the National Flood  Increase Program	management plan  Increase the # of flood gauges (rainfall/stream) in the region
Insurance Program  ☐ Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs	□ Increase the # of entities that have multi-year drainage CIP list
<ul> <li>Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards</li> </ul>	<ul> <li>Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings</li> </ul>
<ul> <li>Increase participation in the regional flood planning process</li> <li>Provide regional detention that could be used for water reuse applications or as part of a floodplain management program</li> </ul>	<ul> <li>Increase use of nature-based flood risk reduction projects</li> <li>Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger</li> </ul>
<ul> <li>Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use</li> </ul>	Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
<ul> <li>Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and</li> </ul>	<ul> <li>Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers</li> </ul>
available on the website Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and	(CFM) with the Texas Floodplain Management Association Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to
shelter locations  Reduce the # of structures that have been subject to repeated flooding events through property buyouts	incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
RFPG Recommended	





# Alton MDP - North Stewart Boulevard Alternative 2

FMP ID: 153000004

IAMOND HEAD AVE

No Structural Projects (Property easement acquisitions,

elevation of structures, flood-proofing, early warn systems)

#### **FMP Description**

Alternative 2 is designed to remove structures from the 10-year floodplain and more frequent storms. This alternative consists of the construction of 6,600 LF of a single 8' X 4' reinforced concrete box sloped at 0.02% from the Val Verde Acres Subdivision to Josefa Garcia Park.

#### **Project Type**

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
  - Nature Based (Structural) Projects (wetlands, bioswales, river ✓ Infrastructure
- **Project Area**

City/ Cities

restorations, etc.)

County/ Counties Hidalgo

HUC 8 12110207,

12110211

HUC 12 121102080200,

121102080300

Study Area (sq. mi.) 0.38

#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding?

Population at Risk

Roadways flooded

Critical Facilities Impacted

Ves ✓ No □

No □

Agricultural Land impacted Yes □ No □

Notes:

#### **Project Costs**

**Total Cost:** \$8,338,572 Study Sponsor: City of Alton Non-reoccurring Non-capital These are one-time costs for program development, education campaign, and non-Cost (include in Total above): engineering study costs. **Entity with Oversight** Estimated year to start: 2023 City of Alton Included in a Hazard Mitigation Time to complete? 2025 Yes ✓ No □ Action Plan or other plan? Funding Dedicated? (Potential) Source of Funding FIF, local Yes □ No ✓





#### Have the flood risk and flood reduction impacts been evaluated?

Have the flood risk and flood reduction impacts been evaluated?		Yes □ No ✓		
Does the project have any negative effects, per TWDB guidelines?		Yes □ No □ Unknown ✓		
Does the project have a Benefit Cost Ratio greater than 1?		Yes □ No □ Unknown ✓		
Doe	es the project reduce flood risk for the 100-Yr flood event?	Yes □ No □ Unknown ✓		
Doe	es the Project provide a Water Supply Benefit?	Yes □ No ✓		
Has all the ROW been acquired?		Yes  No		
Will permits or interlocal agreements be needed for this project?		Yes  No		
Rela	ated Goals			
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	Increase the # of entities that adopt higher than NFIP-minimum standards		
	Reduce the # of newly constructed vulnerable critical facilities	Develop and maintain an operational stormwater asset		
	within the existing and future 100-YR floodplain Increase the # of communities participating in the National Flood Insurance Program	management plan Increase the # of flood gauges (rainfall/stream) in the region		
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs	Increase the # of entities that have multi-year drainage CIP list		
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards	Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings		
	Increase participation in the regional flood planning process	Increase use of nature-based flood risk reduction projects		
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program	Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger		
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use	Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure		
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers		
	available on the website Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and	(CFM) with the Texas Floodplain Management Association Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to		
	shelter locations Reduce the # of structures that have been subject to repeated flooding events through property buyouts	incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain		
<b></b>	OC De a como con de el			

#### RFPG Recommended

Yes □ No ✓





# Alton MDP - South Stewart Boulevard Alternative 2A

FMP ID: 153000005

#### **FMP Description**

740 LF 6' X 4' Reinforced Concrete Box Culvert starting just south of Orange Dr. and Stewart Rd. 70 acres of land acquisition for regional retention. 3.1 Acres of land for channel conveyance.

#### **Project Type**

- ✓ Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- □ Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- ✓ Infrastructure

#### **Project Area**

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110212

HUC 12 121102080200,

121102080300

Study Area (sq. mi.) 0.81

# PROPOSED CHANNEL TOP WIDTH-28 DUMANTANED UMANTANED CHANNEL TOP WIDTH-28 DEPTH-4 TOP WIDTH-27 DEPTH-4 TOP WIDTH-37 DEPTH-4 (MANTANED) PROPOSED CHANNEL TOP WIDTH-37 DEPTH-4 (MANTANED) PROPOSED CHANNEL

#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding?

Population at Risk

Roadways flooded

Yes ✓ No □

Wiles inundated

Yes □ No □

Notes:

Frequency of flooding:

# of structures inundated

Miles inundated?

Agricultural Land impacted Yes □ No □

No □

Notes:

#### **Project Costs**

**Total Cost:** \$6,296,400 Study Sponsor: City of Alton Non-reoccurring Non-These are one-time costs for program development, education campaign, and non-engineering study costs. capital Cost (include in Total above): Estimated year to start: 2023 Entity with Oversight City of Alton Time to complete? 2025 Included in a Hazard Mitigation Yes ✓ No 🗆



RFPG Recommended

Yes □ No ✓



#### Flood Mitigation Project Fact Sheet

Action Plan or other plan? Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding FIF, local Have the flood risk and flood reduction impacts been evaluated? Have the flood risk and flood reduction impacts been evaluated? Does the project have any negative effects, per TWDB guidelines? Yes □ No □ Unknown ✓ Does the project have a Benefit Cost Ratio greater than 1? Yes □ No □ Unknown ✓ Does the project reduce flood risk for the 100-Yr flood event? Yes □ No □ Unknown ✓ Does the Project provide a Water Supply Benefit? Yes □ No ✓ Has all the ROW been acquired? Yes □ No □ Will permits or interlocal agreements be needed for this project? Yes □ No □ Related Goals Increase community access routes to critical facilities, Increase the # of entities that adopt higher than NFIPevacuation routes, during and after a flooding event minimum standards Reduce the # of newly constructed vulnerable critical Develop and maintain an operational stormwater asset facilities within the existing and future 100-YR floodplain management plan Increase the # of communities participating in the National Increase the # of flood gauges (rainfall/stream) in the Flood Insurance Program region Decrease the average age of FEMA Flood Insurance Rate Increase the # of entities that have multi-year drainage Maps used to define SFHAs CIP list Increase the coverage of available flood hazard data by Increase the # of entities that integrate National Weather completing studies with identified construction projects to Service and USGS Texas Water Science Center (TXWSC) address flooding hazards flood warning system information into their local capabilities to disseminate warnings Increase use of nature-based flood risk reduction projects Increase participation in the regional flood planning process Provide regional detention that could be used for water Develop a regionally coordinated warning and emergency reuse applications or as part of a floodplain management response program that can detect the flood threat and program provide timely warning of impending flood danger Increase acreage of publicly protected open space in critical Increase the amount of publicly owned land in the region flood risk areas that is reused for a beneficial public use that can be utilized for future regional stormwater infrastructure Increase outreach and education activities, specifically Increase the proficiency of floodplain managers by targeting municipal floodplain managers, hosted by Region increasing the # of them that are certified as Certified 15 RFPG and available on the website Floodplain Managers (CFM) with the Texas Floodplain Management Association Increase the use reverse 911, TV, radio, social media, and Increase participation in the Community Rating System by billboards to communicate flood warnings, evacuation encouraging Region 15 floodplain management programs routes, and shelter locations to incorporate dedicated drainage fees to implement Reduce the # of structures that have been subject to future FMEs and FMPs; incorporate noncompliance repeated flooding events through property buyouts penalties; and who regulate development in the future conditions floodplain





### Alton MDP - West Mile 5 and South Glasscock Road Alternative 3

FMP ID: 15300006

#### **FMP Description**

Alternative 3 is simply the buyout and removal of 23 properties on the north side of Buchanan from the 10-year floodplain. Once structures are removed, the vacant land can be excavated and used as a park/regional retention pond.

#### **Project Type**

- ☐ Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- □ Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- ✓ Infrastructure

#### Project Area

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110213

HUC 12 121102080200,

121102080300

Study Area (sq. mi.) N/A



#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding?

Population at Risk

Roadways flooded

Yes ✓ No □

Wiles inundated

Yes □ No □

Notes:

Frequency of flooding:

# of structures inundated

Miles inundated?

Agricultural Land impacted Yes □ No □

No □

Notes:

#### **Project Costs**

Time to complete?

Total Cost: \$1,663,200 Study Sponsor: City of Alton

Non-reoccurring Noncapital Cost (include in Total above):

Estimated year to start: \$1,663,200 Study Sponsor: City of Alton

These are one-time costs for program development, education campaign, and non-engineering study costs.

Entity with Oversight City of Alton

Entity with Oversight City of Alton Included in a Hazard Mitigation Yes ✓ No □



RFPG Recommended

Yes □ No ✓



#### Flood Mitigation Project Fact Sheet

Action Plan or other plan? Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding FIF, local Have the flood risk and flood reduction impacts been evaluated? Have the flood risk and flood reduction impacts been evaluated? Does the project have any negative effects, per TWDB guidelines? Yes □ No □ Unknown ✓ Does the project have a Benefit Cost Ratio greater than 1? Yes □ No □ Unknown ✓ Does the project reduce flood risk for the 100-Yr flood event? Yes □ No □ Unknown ✓ Does the Project provide a Water Supply Benefit? Yes □ No ✓ Has all the ROW been acquired? Yes □ No □ Will permits or interlocal agreements be needed for this project? Yes □ No □ **Related Goals** Increase community access routes to critical facilities, Increase the # of entities that adopt higher than NFIPminimum standards evacuation routes, during and after a flooding event Reduce the # of newly constructed vulnerable critical Develop and maintain an operational stormwater asset facilities within the existing and future 100-YR floodplain management plan Increase the # of communities participating in the National Increase the # of flood gauges (rainfall/stream) in the Flood Insurance Program region Decrease the average age of FEMA Flood Insurance Rate Increase the # of entities that have multi-year drainage Maps used to define SFHAs CIP list Increase the coverage of available flood hazard data by Increase the # of entities that integrate National Weather completing studies with identified construction projects to Service and USGS Texas Water Science Center (TXWSC) address flooding hazards flood warning system information into their local capabilities to disseminate warnings Increase use of nature-based flood risk reduction projects Increase participation in the regional flood planning process Provide regional detention that could be used for water Develop a regionally coordinated warning and emergency reuse applications or as part of a floodplain management response program that can detect the flood threat and program provide timely warning of impending flood danger Increase acreage of publicly protected open space in critical Increase the amount of publicly owned land in the region flood risk areas that is reused for a beneficial public use that can be utilized for future regional stormwater infrastructure Increase outreach and education activities, specifically Increase the proficiency of floodplain managers by targeting municipal floodplain managers, hosted by Region increasing the # of them that are certified as Certified 15 RFPG and available on the website Floodplain Managers (CFM) with the Texas Floodplain Management Association Increase the use reverse 911, TV, radio, social media, and Increase participation in the Community Rating System by billboards to communicate flood warnings, evacuation encouraging Region 15 floodplain management programs routes, and shelter locations to incorporate dedicated drainage fees to implement Reduce the # of structures that have been subject to future FMEs and FMPs; incorporate noncompliance repeated flooding events through property buyouts penalties; and who regulate development in the future conditions floodplain





# Weslaco Stormwater Improvement Plan -South Texas Boulevard and East 18th Street

#### FMP ID: 153000007

#### **FMP Description**

Construction of a 5 acre detention pond along Texas Boulevard, with approximately 1,400 LF of channel widening along the back of the neighborhood, the replacement of a 30 – inch culvert crossing the irrigation canal with an 8' x 4' RCB, and replacement of a 24 – inch culvert crossing FM 88 with an 8' x 4' RCB.

#### **Project Type**

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- ✓ Infrastructure

#### **Project Area**

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110214

HUC 12 130800020703,

130800020702

Study Area (sq. mi.) N/A

# Project8

#### **Emergency Need**

Yes ✔ No 🗆

#### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency of flooding:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Project Costs

Notes:

Total Cost: \$1,585,584 Study Sponsor: Weslaco

Non-reoccurring Non-capital These are one-time costs for program development, education campaign, and noncost (include in Total above): engineering study costs.

Estimated year to start: Entity with Oversight Weslaco

Time to complete? Weslaco

Included in a Hazard Mitigation Yes ✓ No □

Action Plan or other plan?

Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding FIF, local



Yes □ No ✓



#### Flood Mitigation Project Fact Sheet

#### Have the flood risk and flood reduction impacts been evaluated?

Have the floo	d risk and flood reduction impacts been evaluated?	Yes □ No ✓
Does the proj	ect have any negative effects, per TWDB guidelines?	Yes □ No □ Unknown ✓
Does the proj	ect have a Benefit Cost Ratio greater than 1?	Yes □ No □ Unknown ✓
Does the proj	ect reduce flood risk for the 100-Yr flood event?	Yes □ No □ Unknown ✓
Does the Proj	ect provide a Water Supply Benefit?	Yes □ No ✓
Has all the RC	DW been acquired?	Yes □ No □
Will permits of	or interlocal agreements be needed for this project?	Yes □ No □
Related G	oals	
□ Increase	community access routes to critical facilities, evacuation	Increase the # of entities that adopt higher than NFIP-minimum
□ Reduce f	during and after a flooding event the # of newly constructed vulnerable critical facilities ne existing and future 100-YR floodplain	standards Develop and maintain an operational stormwater asset management plan
Increase	the # of communities participating in the National Flood e Program	Increase the # of flood gauges (rainfall/stream) in the region
Decrease	e the average age of FEMA Flood Insurance Rate Maps define SFHAs	Increase the # of entities that have multi-year drainage CIP list
Increase	the coverage of available flood hazard data by completing with identified construction projects to address flooding	Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	participation in the regional flood planning process	Increase use of nature-based flood risk reduction projects
	regional detention that could be used for water reuse ons or as part of a floodplain management program	Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	acreage of publicly protected open space in critical flood s that is reused for a beneficial public use	Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
<ul><li>Increase municipa</li></ul>	outreach and education activities, specifically targeting al floodplain managers, hosted by Region 15 RFPG and	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers
<ul><li>Increase</li><li>billboard</li></ul>	e on the website the use reverse 911, TV, radio, social media, and ds to communicate flood warnings, evacuation routes, and	(CFM) with the Texas Floodplain Management Association Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to increase to delicated decipage focate implement future FMEs
	the # of structures that have been subject to repeated events through property buyouts	incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
RFPG Rec	ommended	





#### **Downtown Pharr Mitigation Project**

FMP ID: 153000008

#### **FMP Description**

Construct 5500-linear feet of channel improvements on the Pharr South Drain downstream of Sam Houston Street to just north of Inspiration Street. Install 7280-linear feet of reinforced concrete box culvert improvements toward the Pharr

South Drain from Egly and North Hibiscus Street. Install curb inlet capture systems approximately every 500-feet to capture local drainage across subdivisions and repave roadways. Construct two (2) Regional Detention Facilities. Facility 1 at North Camelia Street (Max Depth = 5.5-feet) will require 5.5 acre-feet of excavation and is owned by the City of Pharr. Facility 2 at Audrey Street (max Depth = 9.5-feet) will require 42 acre-feet of excavation and will require acquisition.

#### **Project Type**

- ✓ Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- Infrastructure, Regional Detention

#### **Project Area**

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110217

HUC 12 121102080100,

121102080300,

130900020311

Study Area (sq. mi.) N/A

# POLK POLK SAMHOUSTON A SAMHOUSTON

# of structures inundated Miles inundated?

Agricultural Land impacted Yes □ No □

#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Population at Risk

Roadways flooded Yes ✓ No □
Critical Facilities Impacted Yes □ No □

Notes:

#### **Project Costs**

Total Cost: \$45,241,092 Study Sponsor: City of Pharr
Non-reoccurring Non-capital These are one-time costs for program development, education campaign, and non-

Cost (include in Total above): engineering study costs.

Estimated year to start:

2022
Entity with Oversight City of Pharr
Time to complete?

2024
Included in a Hazard Mitigation Yes ✓ No 
Action Plan or other plan?





Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding FIF, local Have the flood risk and flood reduction impacts been evaluated? Have the flood risk and flood reduction impacts been evaluated? Does the project have any negative effects, per TWDB guidelines? Yes □ No □ Unknown ✓ Yes □ No □ Unknown ✓ Does the project have a Benefit Cost Ratio greater than 1? Does the project reduce flood risk for the 100-Yr flood event? Yes □ No □ Unknown ✓ Does the Project provide a Water Supply Benefit? Yes □ No ✓ Has all the ROW been acquired? Yes □ No □ Will permits or interlocal agreements be needed for this project? Yes □ No □ Related Goals Increase community access routes to critical facilities, evacuation Increase the # of entities that adopt higher than NFIP-minimum routes, during and after a flooding event Reduce the # of newly constructed vulnerable critical facilities Develop and maintain an operational stormwater asset within the existing and future 100-YR floodplain management plan Increase the # of communities participating in the National Flood Increase the # of flood gauges (rainfall/stream) in the region Insurance Program Decrease the average age of FEMA Flood Insurance Rate Maps Increase the # of entities that have multi-year drainage CIP list used to define SFHAs Increase the coverage of available flood hazard data by completing Increase the # of entities that integrate National Weather studies with identified construction projects to address flooding Service and USGS Texas Water Science Center (TXWSC) flood hazards warning system information into their local capabilities to disseminate warnings Increase participation in the regional flood planning process Increase use of nature-based flood risk reduction projects Provide regional detention that could be used for water reuse Develop a regionally coordinated warning and emergency applications or as part of a floodplain management program response program that can detect the flood threat and provide timely warning of impending flood danger Increase acreage of publicly protected open space in critical flood Increase the amount of publicly owned land in the region that risk areas that is reused for a beneficial public use can be utilized for future regional stormwater infrastructure Increase outreach and education activities, specifically targeting Increase the proficiency of floodplain managers by increasing municipal floodplain managers, hosted by Region 15 RFPG and the # of them that are certified as Certified Floodplain Managers available on the website (CFM) with the Texas Floodplain Management Association Increase the use reverse 911, TV, radio, social media, and Increase participation in the Community Rating System by billboards to communicate flood warnings, evacuation routes, and encouraging Region 15 floodplain management programs to shelter locations incorporate dedicated drainage fees to implement future FMEs Reduce the # of structures that have been subject to repeated and FMPs; incorporate noncompliance penalties; and who flooding events through property buyouts regulate development in the future conditions floodplain RFPG Recommended Yes □ No ✓





#### North Pharr Backwater Relief Project

FMP ID: 153000009

#### **FMP Description**

Construct 3400-linear feet of channel improvements on the ditch running from south to north along North Fir Street and 2800-linear feet of channel improvements on the Pharr-McAllen Lateral Ditch up to North I road. Install culvert improvements, 2-8' X 4' RCB, alongside the ditch running parallel to Fir Street at crossings of W. Sioux Road and at connection to outfall of maintained ditch to the Pharr-McAllen Lateral System. Extend existing culverts at crossings. Repave W. Sioux Road.

#### Project Type

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- Infrastructure

#### Project Area

City/ Cities

County/ Counties Hidalgo

> HUC 8 12110207,

> > 12110220

HUC 12 121102080100,

121102080300,

130900020311

Study Area (sq. mi.) N/A



#### **Emergency Need**

Yes ✓ No 🗆

#### Known Flood Risk

History of Flooding? No □ Population at Risk

Roadways flooded Yes ✓ No □

Critical Facilities Impacted

Yes □ No □

# of structures inundated Miles inundated? Agricultural Land impacted Yes □ No □

#### Project Costs

Notes:

**Total Cost:** \$1,628,000 Study Sponsor: City of Pharr Non-reoccurring Non-capital

These are one-time costs for program development, education campaign, and non-Cost (include in Total above): engineering study costs.

Estimated year to start: 2022

City of Pharr **Entity with Oversight** Time to complete? Included in a Hazard Mitigation 2024 Yes ✓ No □ Action Plan or other plan?

(Potential) Source of Funding Funding Dedicated? Yes □ No ✓ FIF, local





#### Have the flood risk and flood reduction impacts been evaluated?

Have the flood risk and flood reduction impacts been evaluated?	Yes □ No ✓
Does the project have any negative effects, per TWDB guidelines?	Yes □ No □ Unknown ✓
Does the project have a Benefit Cost Ratio greater than 1?	Yes □ No □ Unknown ✓
Does the project reduce flood risk for the 100-Yr flood event?	Yes □ No □ Unknown ✓
Does the Project provide a Water Supply Benefit?	Yes □ No ✓
Has all the ROW been acquired?	Yes □ No □
Will permits or interlocal agreements be needed for this project?	Yes □ No □
Related Goals	
✓ Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	<ul> <li>Increase the # of entities that adopt higher than NFIP-minimum standards</li> </ul>
☐ Reduce the # of newly constructed vulnerable critical facilities	<ul> <li>Develop and maintain an operational stormwater asset</li> </ul>
within the existing and future 100-YR floodplain  Increase the # of communities participating in the National Flood Insurance Program	management plan  ☐ Increase the # of flood gauges (rainfall/stream) in the region
<ul> <li>Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs</li> </ul>	☐ Increase the # of entities that have multi-year drainage CIP list
<ul> <li>Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards</li> </ul>	<ul> <li>Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings</li> </ul>
□ Increase participation in the regional flood planning process	☐ Increase use of nature-based flood risk reduction projects
<ul> <li>Provide regional detention that could be used for water reuse applications or as part of a floodplain management program</li> </ul>	<ul> <li>Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger</li> </ul>
<ul> <li>Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use</li> </ul>	<ul> <li>Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure</li> </ul>
<ul> <li>Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and</li> </ul>	<ul> <li>Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers</li> </ul>
available on the website  ☐ Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and	(CFM) with the Texas Floodplain Management Association  ☐ Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to
<ul> <li>shelter locations</li> <li>Reduce the # of structures that have been subject to repeated flooding events through property buyouts</li> </ul>	incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
REPG Recommended	

#### RFPG Recommended

Yes □ No ✓





#### North Pharr Culvert Improvements

FMP ID: 153000010

#### **FMP Description**

Install culvert improvements, 2-10X10 RCB, alongside the ditch running parallel to N. Erika Street at crossings of W. Sioux Road and at connection to outfall of maintained ditch to the Pharr-McAllen Lateral System. Repave W. Sioux Road.

#### **Project Type**

- ✓ Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- ✓ Infrastructure

#### Project Area

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110221

HUC 12 121102080100,

121102080300,

130900020311

Study Area (sq. mi.) N/A



#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency of flooding:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

#### **Project Costs**

Total Cost: \$869,000 Study Sponsor: City of Pharr

Non-reoccurring Non
These are one-time costs for program development, education campaign, and

capital Cost (include in Total non-engineering study costs.

above):

Estimated year to start: 2022 Entity with Oversight City of Pharr Time to complete? 2024 Included in a Hazard Mitigation Yes ✓ No □



RFPG Recommended

Yes □ No ✓



#### Flood Mitigation Project Fact Sheet

Action Plan or other plan? Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding FIF, local Have the flood risk and flood reduction impacts been evaluated? Have the flood risk and flood reduction impacts been evaluated? Does the project have any negative effects, per TWDB guidelines? Yes □ No □ Unknown ✓ Does the project have a Benefit Cost Ratio greater than 1? Yes □ No □ Unknown ✓ Does the project reduce flood risk for the 100-Yr flood event? Yes □ No □ Unknown ✓ Does the Project provide a Water Supply Benefit? Yes □ No ✓ Has all the ROW been acquired? Yes □ No □ Will permits or interlocal agreements be needed for this project? Yes □ No □ Related Goals Increase community access routes to critical facilities, Increase the # of entities that adopt higher than NFIPevacuation routes, during and after a flooding event minimum standards Reduce the # of newly constructed vulnerable critical Develop and maintain an operational stormwater asset facilities within the existing and future 100-YR floodplain management plan Increase the # of communities participating in the National Increase the # of flood gauges (rainfall/stream) in the Flood Insurance Program region Decrease the average age of FEMA Flood Insurance Rate Increase the # of entities that have multi-year drainage Maps used to define SFHAs CIP list Increase the coverage of available flood hazard data by Increase the # of entities that integrate National Weather completing studies with identified construction projects to Service and USGS Texas Water Science Center (TXWSC) address flooding hazards flood warning system information into their local capabilities to disseminate warnings Increase use of nature-based flood risk reduction projects Increase participation in the regional flood planning process Provide regional detention that could be used for water Develop a regionally coordinated warning and emergency reuse applications or as part of a floodplain management response program that can detect the flood threat and program provide timely warning of impending flood danger Increase acreage of publicly protected open space in critical Increase the amount of publicly owned land in the region flood risk areas that is reused for a beneficial public use that can be utilized for future regional stormwater infrastructure Increase outreach and education activities, specifically Increase the proficiency of floodplain managers by targeting municipal floodplain managers, hosted by Region increasing the # of them that are certified as Certified 15 RFPG and available on the website Floodplain Managers (CFM) with the Texas Floodplain Management Association Increase the use reverse 911, TV, radio, social media, and Increase participation in the Community Rating System by billboards to communicate flood warnings, evacuation encouraging Region 15 floodplain management programs routes, and shelter locations to incorporate dedicated drainage fees to implement Reduce the # of structures that have been subject to future FMEs and FMPs; incorporate noncompliance repeated flooding events through property buyouts penalties; and who regulate development in the future conditions floodplain





#### North Pharr Mitigation Project

FMP ID: 153000011

#### **FMP Description**

Construct 3400-linear feet of channel improvements on the ditch running from south to north along North Fir Street and 2800-linear feet of channel improvements on the Pharr-McAllen Lateral Ditch up to North I road. Install culvert improvements, 2 – 8' X 4' RCB, alongside the ditch running parallel to Fir Street at crossings of W. Sioux Road and at connection to outfall of maintained ditch to the Pharr-McAllen Lateral System. Construct an inline Regional Detention Facility (RDF) along the Pharr-McAllen drain within the City Limits of San Juan. The pond will require a footprint of 35-acres.

#### **Project Type**

- ✓ Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
  - Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- ✓ Infrastructure

#### Project Area

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110222

HUC 12 121102080100,

121102080300,

130900020311

Study Area (sq. mi.) N/A

# R. R.A. S. S. SERVINGON B. SIOUX

#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding?

Population at Risk

Roadways flooded

Critical Facilities Impacted

Notes:

Yes ✓ No□

Frequency of flooding:

# of structures inundated

Miles inundated?

Agricultural Land impacted

Yes □ No□

Notes:

#### **Project Costs**

**Total Cost:** \$8,195,000 Study Sponsor: City of Pharr Non-reoccurring Non-capital These are one-time costs for program development, education campaign, and non-Cost (include in Total above): engineering study costs. Estimated year to start: 2022 Entity with Oversight City of Pharr Time to complete? 2024 Included in a Hazard Mitigation Yes ✓ No 🗆 Action Plan or other plan?





**Fact Sheet** Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding FIF, local Have the flood risk and flood reduction impacts been evaluated? Have the flood risk and flood reduction impacts been evaluated? Does the project have any negative effects, per TWDB guidelines? Yes □ No □ Unknown ✓ Yes □ No □ Unknown ✓ Does the project have a Benefit Cost Ratio greater than 1? Does the project reduce flood risk for the 100-Yr flood event? Yes □ No □ Unknown ✓ Does the Project provide a Water Supply Benefit? Yes □ No ✓ Has all the ROW been acquired? Yes □ No □ Will permits or interlocal agreements be needed for this project? Yes □ No □ Related Goals Increase community access routes to critical facilities, evacuation Increase the # of entities that adopt higher than NFIP-minimum routes, during and after a flooding event Reduce the # of newly constructed vulnerable critical facilities Develop and maintain an operational stormwater asset within the existing and future 100-YR floodplain management plan Increase the # of communities participating in the National Flood Increase the # of flood gauges (rainfall/stream) in the region Insurance Program Decrease the average age of FEMA Flood Insurance Rate Maps Increase the # of entities that have multi-year drainage CIP list used to define SFHAs Increase the coverage of available flood hazard data by completing Increase the # of entities that integrate National Weather studies with identified construction projects to address flooding Service and USGS Texas Water Science Center (TXWSC) flood hazards warning system information into their local capabilities to disseminate warnings Increase participation in the regional flood planning process Increase use of nature-based flood risk reduction projects Provide regional detention that could be used for water reuse Develop a regionally coordinated warning and emergency applications or as part of a floodplain management program response program that can detect the flood threat and provide timely warning of impending flood danger Increase acreage of publicly protected open space in critical flood Increase the amount of publicly owned land in the region that risk areas that is reused for a beneficial public use can be utilized for future regional stormwater infrastructure Increase outreach and education activities, specifically targeting Increase the proficiency of floodplain managers by increasing municipal floodplain managers, hosted by Region 15 RFPG and the # of them that are certified as Certified Floodplain Managers available on the website (CFM) with the Texas Floodplain Management Association Increase the use reverse 911, TV, radio, social media, and Increase participation in the Community Rating System by

#### RFPG Recommended

shelter locations

billboards to communicate flood warnings, evacuation routes, and

Reduce the # of structures that have been subject to repeated

flooding events through property buyouts

Yes ✔ No 🗆

encouraging Region 15 floodplain management programs to

and FMPs; incorporate noncompliance penalties; and who

regulate development in the future conditions floodplain

incorporate dedicated drainage fees to implement future FMEs





#### Southwest Pharr Drainage Mitigation Project

#### FMP ID: 153000012

#### **FMP Description**

Construct four regional detention facilities (RDF). RDF 1 has a footprint of 19.75-acres and is a lateral detention facility located between Dicker and Thomas Road west of Highway 281 and near Carmen Anaya Elementary. RDF 2 has a footprint of 7.4-acres and located in the western section of Jones Box Park. RDF 3 has a footprint of 5.5-acres and located in the central section of Jones Box Park. Redirect flow from the Los Ranchitos Subdivisions via a reconfigured 36" RCP into a pilot channel located in the deepest section of the pond. Install 36"RCP and flap gate at the outfall to prevent backflow from the South Floodwater Channel into the subdivisions north of Jones Box Park. RDF 4 is located between Dicker and Las Milpas Road east of Highway 281, south of the South Floodwater Channel, and will require a footprint of 13.8-acres.

#### **Project Type**

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- ✓ Infrastructure, Regional Detention

#### **Project Area**

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

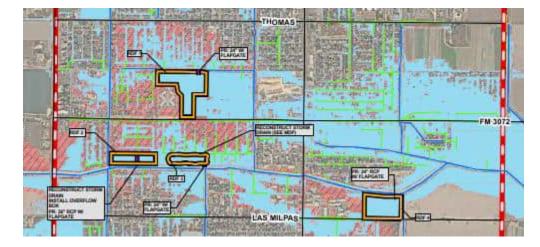
12110227

HUC 12 121102080100,

121102080300,

130900020311

Study Area (sq. mi.) 0.07



#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding?

Population at Risk

Roadways flooded

Critical Facilities Impacted

Yes ✓ No □

Agricultural Land impacted

Frequency of flooding:

# of structures inundated

Miles inundated?

Agricultural Land impacted

Yes □ No □

Agricultural Land impacted

#### **Project Costs**

Notes:

Study Sponsor: **Total Cost:** \$5,587,275 City of Pharr Non-reoccurring Non-capital These are one-time costs for program development, education campaign, and nonengineering study costs. Cost (include in Total above): 2022 Estimated year to start: **Entity with Oversight** City of Pharr Time to complete? 2024 Included in a Hazard Mitigation Yes ✓ No □ Action Plan or other plan?





Fact Sheet

Funding Dedicated?

Yes □ No ✓ (Potential) Source of Funding FIF, local

Have the flood risk and flood reduction impacts been evaluated?

Have the flood risk and flood reduction impacts k	
Have the flood risk and flood reduction impacts been evaluated?	Yes □ No ✓
Does the project have any negative effects, per TWDB guidelines?	Yes □ No □ Unknown ✓
Does the project have a Benefit Cost Ratio greater than 1?	Yes □ No □ Unknown ✓
Does the project reduce flood risk for the 100-Yr flood event?	Yes □ No □ Unknown ✓
Does the Project provide a Water Supply Benefit?	Yes □ No ✓
Has all the ROW been acquired?	Yes □ No □
Will permits or interlocal agreements be needed for this project?	Yes □ No □
Related Goals	
✓ Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	☐ Increase the # of entities that adopt higher than NFIP-minimum standards
Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain	<ul> <li>Develop and maintain an operational stormwater asset management plan</li> </ul>
☐ Increase the # of communities participating in the National Flood Insurance Program	☐ Increase the # of flood gauges (rainfall/stream) in the region
<ul> <li>Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs</li> </ul>	☐ Increase the # of entities that have multi-year drainage CIP list
<ul> <li>Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards</li> </ul>	<ul> <li>Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings</li> </ul>
<ul> <li>□ Increase participation in the regional flood planning process</li> <li>✓ Provide regional detention that could be used for water reuse applications or as part of a floodplain management program</li> </ul>	<ul> <li>Increase use of nature-based flood risk reduction projects</li> <li>Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger</li> </ul>
<ul> <li>Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use</li> </ul>	<ul> <li>Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure</li> </ul>
Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website	<ul> <li>Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association</li> </ul>
☐ Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations	<ul> <li>Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement future FMEs</li> </ul>
<ul> <li>Reduce the # of structures that have been subject to repeated flooding events through property buyouts</li> </ul>	and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
DEDC Docommondod	

#### RFPG Recommended

Yes ✓ No 🗆





#### Pharr - San Juan Regional Detention Facility

FMP ID: 153000013

#### **FMP Description**

Construct an inline Regional Detention Facility (RDF) along the Pharr-McAllen drain within the City Limits of San Juan. The pond will require a footprint of 35 acres, 300 acre-feet of storage volume, have a maximum depth of approximately of 14 feet, and require some property acquisition.

#### **Project Type**

- ☐ Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
  - Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- ✓ Regional Detention

#### Project Area

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110224

HUC 12 121102080100,

121102080300,

130900020311

Study Area (sq. mi.) N/A



#### **Emergency Need**

Yes ✓ No □

#### **Known Flood Risk**

His	tory of Flooding?	Yes ✓	No □	Frequency of flooding:		
Po	oulation at Risk			# of structures inundated		
Roa	adways flooded	Yes ✓	No □	Miles inundated?		
	Critical Facilities Impacted	Yes 🗆	No □	Agricultural Land impacted	Yes 🗆	No □
Nο	tes·					

#### **Project Costs**

**Total Cost:** \$5,148,000 Study Sponsor: City of Pharr Non-reoccurring Non-capital These are one-time costs for program development, education campaign, and non-Cost (include in Total above): engineering study costs. Estimated year to start: 2022 **Entity with Oversight** City of Pharr Time to complete? Included in a Hazard Mitigation 2024 Yes ✓ No □

Action Plan or other plan?

Funding Dedicated? Yes  $\ \square$  No  $\ \checkmark$  (Potential) Source of Funding FIF, local



Yes □ No ✓



#### Have the flood risk and flood reduction impacts been evaluated?

Have the flood risk and flood reduction impacts been evaluated?	Yes □ No ✓
Does the project have any negative effects, per TWDB guidelines?	Yes □ No □ Unknown ✓
Does the project have a Benefit Cost Ratio greater than 1?	Yes □ No □ Unknown ✓
Does the project reduce flood risk for the 100-Yr flood event?	Yes □ No □ Unknown ✓
Does the Project provide a Water Supply Benefit?	Yes □ No ✓
Has all the ROW been acquired?	Yes □ No □
Will permits or interlocal agreements be needed for this project?	Yes □ No □
Related Goals	
✓ Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	☐ Increase the # of entities that adopt higher than NFIP-minimum standards
☐ Reduce the # of newly constructed vulnerable critical facilities	Develop and maintain an operational stormwater asset
within the existing and future 100-YR floodplain  Increase the # of communities participating in the National Flood Increase Program	management plan  Increase the # of flood gauges (rainfall/stream) in the region
Insurance Program  ☐ Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs	☐ Increase the # of entities that have multi-year drainage CIP list
<ul> <li>Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards</li> </ul>	<ul> <li>Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings</li> </ul>
☐ Increase participation in the regional flood planning process	☐ Increase use of nature-based flood risk reduction projects
<ul> <li>Provide regional detention that could be used for water reuse applications or as part of a floodplain management program</li> </ul>	<ul> <li>Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger</li> </ul>
<ul> <li>Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use</li> </ul>	<ul> <li>Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure</li> </ul>
<ul> <li>Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and</li> </ul>	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers
available on the website  Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and	(CFM) with the Texas Floodplain Management Association  Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to
<ul> <li>shelter locations</li> <li>Reduce the # of structures that have been subject to repeated flooding events through property buyouts</li> </ul>	incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
RFPG Recommended	





# Weslaco Stormwater Improvement Plan - Pleasantview Drive and 11th Street

FMP ID: 153000014

#### **FMP Description**

Installation of 3,220 LF of new storm drain system consisting of two – 8' x 4' RCBs along Mile 3 ½.

#### **Project Type**

- ✓ Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- ✓ Infrastructure, Regional Detention

#### **Project Area**

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110228

HUC 12 121102080100,

121102080300

Study Area (sq. mi.) N/A



#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency of flooding:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

#### **Project Costs**

Notes:

Total Cost: \$4,775,000 Study Sponsor: City of Weslaco

Non-reoccurring Noncapital Cost (include in Total above): \$4,775,000 Study Sponsor: City of Weslaco

These are one-time costs for program development, education campaign, and non-engineering study costs.

Estimated year to start: Entity with Oversight City of Weslaco Time to complete? Included in a Hazard Mitigation Yes No





Action Plan or other plan? Funding Dedicated? (Potential) Source of Funding FIF, local Yes □ No □

Ha	ve the flood risk and flood reduction imp	oac	ts been evaluated?
Have the flood risk and flood reduction impacts been evaluated?			Yes □ No ✓
Does the project have any negative effects, per TWDB guidelines?			Yes □ No □ Unknown ✓
Doe	es the project have a Benefit Cost Ratio greater than 1?		Yes □ No □ Unknown ✓
Doe	es the project reduce flood risk for the 100-Yr flood event?		Yes □ No □ Unknown ✓
Doe	es the Project provide a Water Supply Benefit?		Yes □ No ✓
Has	all the ROW been acquired?		Yes □ No □
Wil	I permits or interlocal agreements be needed for this project?		Yes □ No □
Rel	ated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and
	program		provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

Yes □ No ✓





#### Weslaco Stormwater Improvement Plan - Mile 10 N and Mile 5 ½ W

FMP ID: 153000015

#### **FMP Description**

Construction of an 8 acre detention pond, with approximately 4,000 LF of channel widening along the back of the neighborhoods and between the Justice Raul A. Gonzalez Elementary School and Joe Calvillo Jr Career & Technology Education Complex; replacement of existing undersized channel culvert with two - 8' x 5' reinforced concrete boxes (RCBs), and adding two - 8' x 5' RCBs to connect the existing drainage ditches to the drain channel system on the east.

#### Project Type

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- Infrastructure

#### Project Area

City/ Cities

County/ Counties Hidalgo

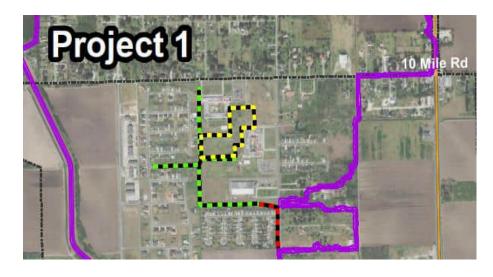
> HUC 8 12110207,

> > 12110230

HUC 12 121102080100,

121102080300

Study Area (sq. mi.) N/A



#### **Emergency Need**

Yes ✓ No 🗆

#### Known Flood Risk

History of Flooding? Frequency of flooding: No □ Population at Risk # of structures inundated Roadways flooded No □ Miles inundated? Critical Facilities Impacted Agricultural Land impacted Yes □ No □ Yes □ No □ Notes:

#### Project Costs

Total Cost: \$4,441,008 Study Sponsor: City of Weslaco Non-reoccurring Non-capital These are one-time costs for program development, education campaign, and non-Cost (include in Total above): engineering study costs. **Entity with Oversight** City of Weslaco Estimated year to start: Time to complete?

Included in a Hazard Mitigation Yes ✓ No 🗆 Action Plan or other plan?

(Potential) Source of Funding Funding Dedicated? Yes □ No ✓ FIF, local





#### Have the flood risk and flood reduction impacts been evaluated?

Yes □ No ✓ Yes □ No □ Unknown ✓ Yes □ No □ Unknown ✓ Yes □ No □ Unknown ✓ Yes □ No □ Yes □ No □  Increase the # of entities that adopt higher than NFIP-minimum standards
Yes □ No □ Unknown ✓ Yes □ No □ Unknown ✓ Yes □ No ✓ Yes □ No □  Yes □ No □  Increase the # of entities that adopt higher than NFIP-minimum
Yes □ No □ Unknown ✓ Yes □ No ✓ Yes □ No □ Yes □ No □  Increase the # of entities that adopt higher than NFIP-minimum
Yes □ No ✓ Yes □ No □ Yes □ No □ Increase the # of entities that adopt higher than NFIP-minimum
Yes
Yes $\ \square$ No $\ \square$ Increase the # of entities that adopt higher than NFIP-minimum
Increase the # of entities that adopt higher than NFIP-minimum
· · ·
· · ·
Develop and maintain an operational stormwater asset management plan
Increase the # of flood gauges (rainfall/stream) in the region
Increase the # of entities that have multi-year drainage CIP list
Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
Increase use of nature-based flood risk reduction projects
Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to
incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who

#### RFPG Recommended

Yes □ No ✓





# Weslaco Stormwater Improvement Plan - South International Boulevard and Business 83

FMP ID: 153000016

#### **FMP Description**

Replacement of 48 – inch culverts at two roadway crossings with 6' x 4' RCBs.

#### **Project Type**

- ☐ Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- ✓ Infrastructure

#### **Project Area**

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110231

HUC 12 121102080100,

121102080300

Study Area (sq. mi.) N/A

# Project7 1015 ct6

#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding?

Population at Risk

Roadways flooded

Critical Facilities Impacted

Yes ✓ No □

Frequency of flooding:

# of structures inundated

Miles inundated?

Agricultural Land impacted

Notes:

#### **Project Costs**

Total Cost: \$93,808 Study Sponsor: City of Weslaco Non-reoccurring Non- These are one-time costs for program development,

These are one-time costs for program development, education campaign, and non-engineering study costs.

Yes □ No □

Entity with Oversight City of Weslaco Included in a Hazard Mitigation Yes ✓ No □

capital Cost (include in Total above): Estimated year to start: Time to complete?





7d\	ve the flood risk and flood reduction imp	oac	ts been evaluated?
Hav	e the flood risk and flood reduction impacts been evaluated?		Yes □ No ✓
Doe	es the project have any negative effects, per TWDB guidelines?		Yes □ No □ Unknown ✓
Does the project have a Benefit Cost Ratio greater than 1?			Yes □ No □ Unknown ✓
Doe	es the project reduce flood risk for the 100-Yr flood event?		Yes □ No □ Unknown ✓
Doe	es the Project provide a Water Supply Benefit?		Yes □ No ✓
Has	all the ROW been acquired?		Yes □ No □
Will	permits or interlocal agreements be needed for this project?		Yes □ No □
Rel	ated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical		Develop and maintain an operational stormwater asset
	facilities within the existing and future 100-YR floodplain Increase the # of communities participating in the National		management plan Increase the # of flood gauges (rainfall/stream) in the
	Flood Insurance Program  Decrease the average age of FEMA Flood Insurance Rate		region Increase the # of entities that have multi-year drainage
	Maps used to define SFHAs Increase the coverage of available flood hazard data by		CIP list Increase the # of entities that integrate National Weather
	completing studies with identified construction projects to address flooding hazards		Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and
	program Increase acreage of publicly protected open space in critical		provide timely warning of impending flood danger Increase the amount of publicly owned land in the region
	flood risk areas that is reused for a beneficial public use		that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**

Yes □ No 🗸





#### Weslaco Stormwater Improvement Plan - Texas Boulevard to Airport Drive, South of Business 83

FMP ID: 153000017

No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)

#### **FMP Description**

Replacement of 48 – inch culverts at two roadway crossings with 6' x 4' RCBs.

#### **Project Type**

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.) ✓ Infrastructure

#### **Project Area**

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110232

HUC 12 121102080100,

121102080300

Study Area (sq. mi.) N/A

#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding?

Population at Risk

Roadways flooded

Critical Facilities Impacted

Notes:

Yes ✓ No □

Frequency of flooding:

# of structures inundated

Miles inundated?

Agricultural Land impacted Yes □ No □

Notes:

#### **Project Costs**

Time to complete?

Total Cost: \$43,984,512 Study Sponsor: City of Weslaco

Non-reoccurring Non-capital These are one-time costs for program development, education campaign, and noncost (include in Total above): engineering study costs.

Estimated year to start: Entity with Oversight City of Weslaco

Included in a Hazard Mitigation Yes ✓ No ☐ Action Plan or other plan?

Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding FIF, local



Yes □ No ✓



#### Flood Mitigation Project Fact Sheet

#### Have the flood risk and flood reduction impacts been evaluated?

Have the flood risk and flood reduction impacts been evaluated?	Yes □ No ✓
Does the project have any negative effects, per TWDB guidelines?	Yes □ No □ Unknown ✓
Does the project have a Benefit Cost Ratio greater than 1?	Yes □ No □ Unknown ✓
Does the project reduce flood risk for the 100-Yr flood event?	Yes □ No □ Unknown ✓
Does the Project provide a Water Supply Benefit?	Yes □ No ✓
Has all the ROW been acquired?	Yes □ No □
Will permits or interlocal agreements be needed for this project?	Yes □ No □
Related Goals	
✓ Increase community access routes to critical facilities, evacuation	☐ Increase the # of entities that adopt higher than NFIP-minimum
routes, during and after a flooding event  Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain	standards  Develop and maintain an operational stormwater asset management plan
<ul> <li>Increase the # of communities participating in the National Flood Insurance Program</li> </ul>	☐ Increase the # of flood gauges (rainfall/stream) in the region
<ul> <li>Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs</li> </ul>	☐ Increase the # of entities that have multi-year drainage CIP list
<ul> <li>Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards</li> </ul>	<ul> <li>Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings</li> </ul>
<ul> <li>□ Increase participation in the regional flood planning process</li> <li>✓ Provide regional detention that could be used for water reuse applications or as part of a floodplain management program</li> </ul>	<ul> <li>Increase use of nature-based flood risk reduction projects</li> <li>Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide</li> </ul>
<ul> <li>Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use</li> </ul>	timely warning of impending flood danger Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
<ul> <li>Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and</li> </ul>	<ul> <li>Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers</li> </ul>
<ul> <li>available on the website</li> <li>Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations</li> </ul>	(CFM) with the Texas Floodplain Management Association  Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement future FMEs
Reduce the # of structures that have been subject to repeated flooding events through property buyouts	and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
RFPG Recommended	





#### Weslaco Stormwater Improvement Plan - West Weslaco

FMP ID: 153000018

#### **FMP Description**

The project is located just west of Border Avenue, between US 83 and Zelma Street. Construction of three detention ponds, 18 acres east of Vaughn Road and Midway Road, 26 acres near West 6th Street and Milano Road and 60 acres at Harlon Block Sports Complex, approximately 17,000 LF of channel widening connecting the ponds, and installation of approximately 4500 LF of large (8' x 4', 8' x 5', 8' x 6') RCB storm drain system to improve conveyance along the channels to the ponds.

#### Project Type

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
  - Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- Infrastructure

#### Project Area

City/ Cities

County/ Counties Hidalgo

> HUC 8 12110207,

> > 12110233

HUC 12 121102080100,

121102080300

Study Area (sq. mi.) N/A



#### **Emergency Need**

Yes ✓ No □

#### Known Flood Risk

History of Flooding? Population at Risk

Roadways flooded

Critical Facilities Impacted

Yes □ No □

No □

No □

# of structures inundated Miles inundated?

Agricultural Land impacted

Yes □ No □

#### Project Costs

Notes:

Total Cost: \$37,305,840 Study Sponsor: City of Weslaco Non-reoccurring Non-capital

These are one-time costs for program development, education campaign, and nonengineering study costs.

**Entity with Oversight** City of Weslaco Included in a Hazard Mitigation Yes ✓ No □

Action Plan or other plan?

(Potential) Source of Funding FIF, local

Cost (include in Total above): Estimated year to start: Time to complete?

**Funding Dedicated?** 

Yes □ No ✓



Yes □ No ✓



#### Have the flood risk and flood reduction impacts been evaluated?

Have the flood risk and flood reduction impacts been evaluated?	Yes □ No ✓
Does the project have any negative effects, per TWDB guidelines?	Yes □ No □ Unknown ✓
Does the project have a Benefit Cost Ratio greater than 1?	Yes □ No □ Unknown ✓
Does the project reduce flood risk for the 100-Yr flood event?	Yes □ No □ Unknown ✓
Does the Project provide a Water Supply Benefit?	Yes □ No ✓
Has all the ROW been acquired?	Yes □ No □
Will permits or interlocal agreements be needed for this project?	Yes □ No □
Related Goals	
✓ Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	☐ Increase the # of entities that adopt higher than NFIP-minimum standards
☐ Reduce the # of newly constructed vulnerable critical facilities	Develop and maintain an operational stormwater asset
within the existing and future 100-YR floodplain  Increase the # of communities participating in the National Flood Insurance Program	management plan  Increase the # of flood gauges (rainfall/stream) in the region
<ul> <li>Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs</li> </ul>	☐ Increase the # of entities that have multi-year drainage CIP list
<ul> <li>Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards</li> </ul>	<ul> <li>Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings</li> </ul>
☐ Increase participation in the regional flood planning process	☐ Increase use of nature-based flood risk reduction projects
<ul> <li>Provide regional detention that could be used for water reuse applications or as part of a floodplain management program</li> </ul>	<ul> <li>Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger</li> </ul>
<ul> <li>Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use</li> </ul>	<ul> <li>Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure</li> </ul>
<ul> <li>Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and</li> </ul>	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers
available on the website  Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and	(CFM) with the Texas Floodplain Management Association  Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to
<ul> <li>shelter locations</li> <li>Reduce the # of structures that have been subject to repeated flooding events through property buyouts</li> </ul>	incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
RFPG Recommended	





# Weslaco Stormwater Improvement Plan - Westgate Drive and Sugar Cane Drive

#### FMP ID: 153000019

#### **FMP Description**

Construction of two detention ponds, 11 acres near Clecker-Heald Elementary School and 8 acres behind the commercial properties north of Interstate 2, approximately 4,500 LF of channel widening connecting the two ponds, addition of a new 42-inch reinforced concrete pipe (RCP) culvert east of Border Avenue, and installation of approximately 5,600 LF of an 8' x 4' RCB storm drain system along West Paisano Lane and East Ballard Street.

#### **Project Type**

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- ✓ Infrastructure

#### **Project Area**

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110234

HUC 12 121102080100,

121102080300

Study Area (sq. mi.) N/A



#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding?

Population at Risk

Roadways flooded

Critical Facilities Impacted

Yes ✓ No □

Agricultural Land impacted

Frequency of flooding:

# of structures inundated

Miles inundated?

Agricultural Land impacted

Yes □ No □

Agricultural Land impacted

#### **Project Costs**

Notes:

Total Cost: \$11,099,088 Study Sponsor: City of Weslaco

Non-reoccurring Non-capital These are one-time costs for program development, education campaign, and nonCost (include in Total above): engineering study costs.

Estimated year to start: Entity with Oversight City of Weslaco

Time to complete? Included in a Hazard Mitigation Yes ✓ No □

te? Included in a Hazard Mitigation Yes ✓
Action Plan or other plan?

Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding FIF, local



Yes □ No ✓



#### Have the flood risk and flood reduction impacts been evaluated?

Have the flood risk and flood reduction impacts been evaluated?	Yes □ No ✓
Does the project have any negative effects, per TWDB guidelines?	Yes □ No □ Unknown ✓
Does the project have a Benefit Cost Ratio greater than 1?	Yes □ No □ Unknown ✓
Does the project reduce flood risk for the 100-Yr flood event?	Yes □ No □ Unknown ✓
Does the Project provide a Water Supply Benefit?	Yes □ No ✓
Has all the ROW been acquired?	Yes □ No □
Will permits or interlocal agreements be needed for this project?	Yes □ No □
Related Goals	
✓ Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	☐ Increase the # of entities that adopt higher than NFIP-minimum standards
☐ Reduce the # of newly constructed vulnerable critical facilities	Develop and maintain an operational stormwater asset
within the existing and future 100-YR floodplain  Increase the # of communities participating in the National Flood Insurance Program	management plan  Increase the # of flood gauges (rainfall/stream) in the region
<ul> <li>Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs</li> </ul>	☐ Increase the # of entities that have multi-year drainage CIP list
<ul> <li>Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards</li> </ul>	<ul> <li>Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings</li> </ul>
<ul> <li>Increase participation in the regional flood planning process</li> </ul>	☐ Increase use of nature-based flood risk reduction projects
<ul> <li>Provide regional detention that could be used for water reuse applications or as part of a floodplain management program</li> </ul>	<ul> <li>Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger</li> </ul>
<ul> <li>Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use</li> </ul>	<ul> <li>Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure</li> </ul>
<ul> <li>Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and</li> </ul>	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers
available on the website  ☐ Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and	(CFM) with the Texas Floodplain Management Association  Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to
<ul> <li>shelter locations</li> <li>Reduce the # of structures that have been subject to repeated flooding events through property buyouts</li> </ul>	incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
RFPG Recommended	





#### FMP ID: 153000020 Precinct 4 MDP - Risk Area A at Mile 8.5 Rd. & Ware Rd.

#### **FMP Description**

Approximately 1 mile of proposed channel improvements. Proposed culverts. Proposed Detention Ponds with pond north of Mile 8.5 Rd. to collect runoff from the west and has an approximate footprint of 12 acres and storage capacity of 60 acre-ft and will outfall south towards the pond south of Mile 8.5 Rd.

#### Project Type

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- Infrastructure

#### Project Area

City/ Cities

County/ Counties Hidalgo

> HUC 8 12110207,

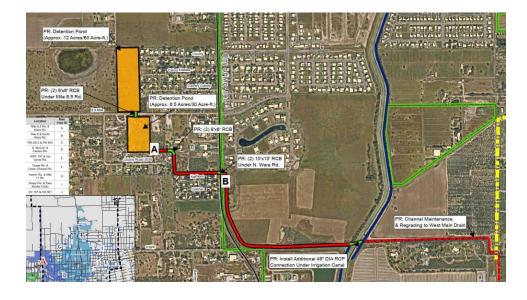
> > 12110279

HUC 12 121102080400,

121102070100,

121102080200

Study Area (sq. mi.) N/A



#### **Emergency Need**

Yes ✓ No 🗆

#### Known Flood Risk

History of Flooding? Frequency of flooding: Yes ✓ No □ Population at Risk # of structures inundated Roadways flooded Yes ✓ No □ Miles inundated? Agricultural Land impacted Yes □ No □ Critical Facilities Impacted Yes □ No □ Notes:

#### **Project Costs**

**Total Cost:** \$19,899,000 Study Sponsor: Hidalgo County Precinct 4 Non-reoccurring Non-capital These are one-time costs for program development, education campaign, and non-Cost (include in Total above): engineering study costs. **Entity with Oversight** Hidalgo County Precinct 4 Estimated year to start: Yes ✓ No 🗆 Time to complete? Included in a Hazard Mitigation

Action Plan or other plan?

Funding Dedicated? (Potential) Source of Funding FIF, local Yes □ No ✓



Yes □ No ✓



#### Have the flood risk and flood reduction impacts been evaluated?

Have the flood risk and flood reduction impacts been evaluated?	Yes □ No ✓
Does the project have any negative effects, per TWDB guidelines?	Yes □ No □ Unknown ✓
Does the project have a Benefit Cost Ratio greater than 1?	Yes □ No □ Unknown ✓
Does the project reduce flood risk for the 100-Yr flood event?	Yes □ No □ Unknown ✓
Does the Project provide a Water Supply Benefit?	Yes □ No ✓
Has all the ROW been acquired?	Yes □ No □
Will permits or interlocal agreements be needed for this project?	Yes □ No □
Related Goals	
✓ Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	☐ Increase the # of entities that adopt higher than NFIP-minimum standards
☐ Reduce the # of newly constructed vulnerable critical facilities	Develop and maintain an operational stormwater asset
within the existing and future 100-YR floodplain  Increase the # of communities participating in the National Flood Increase Program	management plan  Increase the # of flood gauges (rainfall/stream) in the region
Insurance Program  ☐ Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs	☐ Increase the # of entities that have multi-year drainage CIP list
<ul> <li>Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards</li> </ul>	<ul> <li>Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings</li> </ul>
☐ Increase participation in the regional flood planning process	☐ Increase use of nature-based flood risk reduction projects
<ul> <li>Provide regional detention that could be used for water reuse applications or as part of a floodplain management program</li> </ul>	<ul> <li>Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger</li> </ul>
<ul> <li>Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use</li> </ul>	<ul> <li>Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure</li> </ul>
<ul> <li>Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and</li> </ul>	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers
available on the website  Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and	(CFM) with the Texas Floodplain Management Association  Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to
<ul> <li>shelter locations</li> <li>Reduce the # of structures that have been subject to repeated flooding events through property buyouts</li> </ul>	incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
RFPG Recommended	





#### Precinct 4 MDP - Risk Area B at Mile 6 & North Ware Rd.

FMP ID: 153000021

#### **FMP** Description

Regional Detention Facilities with a pond footprint of 25 acres along the Existing HCDD1 West Main Drain. Storm Drain and Local Drainage Improvements. Channel maintenance.

#### Project Type

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- Infrastructure

#### **Project Area**

City/ Cities

County/ Counties Hidalgo

> HUC 8 12110207,

> > 12110280

HUC 12 121102080400,

121102070100,

121102080200,

121102080200

Study Area (sq. mi.) N/A

#### **Emergency Need**

Yes ✓ No 🗆

#### Known Flood Risk

History of Flooding? No □ Frequency of flooding: Population at Risk # of structures inundated Roadways flooded Yes ✓ No □ Miles inundated? Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

\$27,175,500

Notes:

#### **Project Costs**

**Total Cost:** Non-reoccurring Non-capital Cost (include in Total above): Estimated year to start: Time to complete?

Study Sponsor: Hidalgo County Precinct 4

These are one-time costs for program development, education campaign, and nonengineering study costs.

**Entity with Oversight** Hidalgo County Precinct 4 Included in a Hazard Mitigation Yes ✓ No □

Action Plan or other plan?





Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding FIF, local Have the flood risk and flood reduction impacts been evaluated? Have the flood risk and flood reduction impacts been evaluated? Does the project have any negative effects, per TWDB guidelines? Yes □ No □ Unknown ✓ Yes □ No □ Unknown ✓ Does the project have a Benefit Cost Ratio greater than 1? Does the project reduce flood risk for the 100-Yr flood event? Yes □ No □ Unknown ✓ Does the Project provide a Water Supply Benefit? Yes □ No ✓ Has all the ROW been acquired? Yes □ No □ Will permits or interlocal agreements be needed for this project? Yes □ No □ Related Goals Increase community access routes to critical facilities, evacuation Increase the # of entities that adopt higher than NFIP-minimum routes, during and after a flooding event Reduce the # of newly constructed vulnerable critical facilities Develop and maintain an operational stormwater asset within the existing and future 100-YR floodplain management plan Increase the # of communities participating in the National Flood Increase the # of flood gauges (rainfall/stream) in the region Insurance Program Decrease the average age of FEMA Flood Insurance Rate Maps Increase the # of entities that have multi-year drainage CIP list used to define SFHAs Increase the coverage of available flood hazard data by completing Increase the # of entities that integrate National Weather studies with identified construction projects to address flooding Service and USGS Texas Water Science Center (TXWSC) flood hazards warning system information into their local capabilities to disseminate warnings Increase participation in the regional flood planning process Increase use of nature-based flood risk reduction projects Provide regional detention that could be used for water reuse Develop a regionally coordinated warning and emergency applications or as part of a floodplain management program response program that can detect the flood threat and provide timely warning of impending flood danger Increase acreage of publicly protected open space in critical flood Increase the amount of publicly owned land in the region that risk areas that is reused for a beneficial public use can be utilized for future regional stormwater infrastructure Increase outreach and education activities, specifically targeting Increase the proficiency of floodplain managers by increasing municipal floodplain managers, hosted by Region 15 RFPG and the # of them that are certified as Certified Floodplain Managers available on the website (CFM) with the Texas Floodplain Management Association Increase the use reverse 911, TV, radio, social media, and Increase participation in the Community Rating System by billboards to communicate flood warnings, evacuation routes, and encouraging Region 15 floodplain management programs to shelter locations incorporate dedicated drainage fees to implement future FMEs Reduce the # of structures that have been subject to repeated and FMPs; incorporate noncompliance penalties; and who flooding events through property buyouts regulate development in the future conditions floodplain RFPG Recommended Yes □ No ✓





# Precinct 4 MDP - Risk Area C at FM 2812 & FM 493

FMP ID: 153000022

#### **FMP Description**

Channel Improvements (Widening & Regrading) to Existing J-01 Drain with approximately 1.5 miles of proposed improvements. Channel Improvements (Channel Maintenance & Flowline Regrading) to Existing DA-1 Ext. Drain with approximately 0.4 miles of proposed improvements. Proposed detention pond will have an approximate footprint of 9 acres and storage capacity of 90 acre-ft. Grate inlets & proposed storm drain channel maintenance & debris removal.

#### **Project Type**

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- Infrastructure

#### **Project Area**

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110281

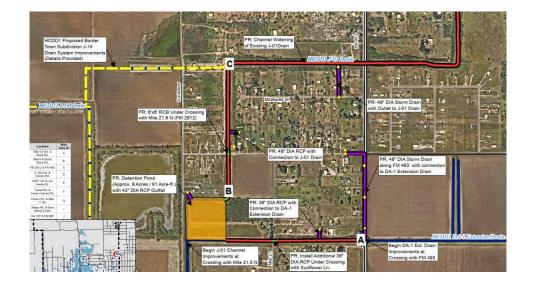
HUC 12 121102080400,

121102070100,

121102080200,

121102080200

Study Area (sq. mi.) N/A



#### **Emergency Need**

Yes ✓ No □

#### Known Flood Risk

History of Flooding? Yes ✓ No □ Frequency of flooding:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

#### **Project Costs**

Notes:

Total Cost: \$7, 887,000 Study Sponsor: Hidalgo County Precinct 4

Non-reoccurring Non-capital These are one-time costs for program development, education campaign, and non-cost (include in Total above): engineering study costs.

Estimated year to start: Entity with Oversight Hidalgo County Precinct 4





Time to complete?		lazard Mitigation Yes ✓ No □
Funding Dedicated? Yes □ No ✓		an or other plan? ource of Funding FIF, local
Have the flood risk and flood reduction in Have the flood risk and flood reduction impacts been evaluad Does the project have any negative effects, per TWDB guide. Does the project have a Benefit Cost Ratio greater than 1?  Does the project reduce flood risk for the 100-Yr flood event Does the Project provide a Water Supply Benefit?  Has all the ROW been acquired?  Will permits or interlocal agreements be needed for this project.	ted? lines? ?	Yes □ No ✓ Yes □ No □ Unknown ✓ Yes □ No □ Yes □ No □
Related Goals		
✓ Increase community access routes to critical facilities, e routes, during and after a flooding event	vacuation 🗆	Increase the # of entities that adopt higher than NFIP-minimum standards
☐ Reduce the # of newly constructed vulnerable critical fa	cilities	Develop and maintain an operational stormwater asset
within the existing and future 100-YR floodplain  Increase the # of communities participating in the Natio	onal Flood 🗆	management plan Increase the # of flood gauges (rainfall/stream) in the region
Insurance Program  ☐ Decrease the average age of FEMA Flood Insurance Rate	e Maps $\qquad \square$	Increase the # of entities that have multi-year drainage CIP list
used to define SFHAs  Increase the coverage of available flood hazard data by studies with identified construction projects to address hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
<ul> <li>☐ Increase participation in the regional flood planning pro</li> <li>✓ Provide regional detention that could be used for water applications or as part of a floodplain management pro</li> </ul>	reuse	Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
☐ Increase acreage of publicly protected open space in cririsk areas that is reused for a beneficial public use	tical flood	Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
<ul> <li>Increase outreach and education activities, specifically to municipal floodplain managers, hosted by Region 15 RF</li> </ul>		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers
available on the website Increase the use reverse 911, TV, radio, social media, ar billboards to communicate flood warnings, evacuation in		(CFM) with the Texas Floodplain Management Association Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to
<ul><li>shelter locations</li><li>Reduce the # of structures that have been subject to re flooding events through property buyouts</li></ul>	peated	incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
RFPG Recommended		
Yes □ No ✓		





### Precinct 4 MDP - Risk Area D at S. McColl & Canton Rd.

#### FMP ID: 153000023

#### **FMP Description**

Channel Improvements (Widening & Regrading) to Existing McAllen Lateral & North Main Drain with approximately 2.25 miles of proposed improvements from S McColl St. to State Highway 107. Crossings at W Canton Rd., W Freddy Gonzalez Dr., and W Sprague St. were all evaluated up to the 25-year design storm criteria for upsizing evaluation.

#### **Project Type**

- ✓ Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
  - Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- ✓ Infrastructure

#### **Project Area**

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110282

HUC 12 121102080400,

121102070100,

121102080200,

121102080200

Yes □ No □

Study Area (sq. mi.) N/A

Critical Facilities Impacted

#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding? Yes ✓ No □
Population at Risk
Roadways flooded Yes ✓ No □

Notes:



Agricultural Land impacted Yes  $\square$  No  $\square$ 

#### **Project Costs**

Total Cost: Non-reoccurring Non-capital Cost (include in Total above): Estimated year to start: Time to complete? \$6,358,000 Study Sponsor: Hidalgo County Precinct 4

These are one-time costs for program development, education campaign, and non-

engineering study costs.

Entity with Oversight Hidalgo County Precinct 4

Included in a Hazard Mitigation Yes ✓ No □





Action Plan or other plan?
(Potential) Source of Funding F

Funding Dedicated? Yes	□ No ✓ (Po	otential) Sc	urce of Funding FIF, local
Have the flood risk and flood r	eduction impac	ts beer	evaluated?
Have the flood risk and flood reduction impa	cts been evaluated?		Yes □ No ✓
Does the project have any negative effects, p	er TWDB guidelines?		Yes □ No □ Unknown ✓
Does the project have a Benefit Cost Ratio gr	eater than 1?		Yes □ No □ Unknown ✓
Does the project reduce flood risk for the 100	0-Yr flood event?		Yes □ No □ Unknown ✓
Does the Project provide a Water Supply Ben	nefit?		Yes □ No ✓
Has all the ROW been acquired?			Yes □ No □
Will permits or interlocal agreements be need	ded for this project?		Yes □ No □
Related Goals			
✓ Increase community access routes to cri routes, during and after a flooding even		n 🗆	Increase the # of entities that adopt higher than NFIP-minimum standards
☐ Reduce the # of newly constructed vulne	erable critical facilities		Develop and maintain an operational stormwater asset
within the existing and future 100-YR flo Increase the # of communities participal Insurance Program		d 🗆	management plan Increase the # of flood gauges (rainfall/stream) in the region
<ul> <li>Decrease the average age of FEMA Floor used to define SFHAs</li> </ul>	d Insurance Rate Maps		Increase the # of entities that have multi-year drainage CIP list
<ul> <li>Increase the coverage of available flood studies with identified construction proj hazards</li> </ul>			Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
☐ Increase participation in the regional flo			Increase use of nature-based flood risk reduction projects
<ul> <li>Provide regional detention that could be applications or as part of a floodplain ma</li> </ul>			Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
<ul> <li>Increase acreage of publicly protected or risk areas that is reused for a beneficial</li> </ul>		od 🗆	Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
<ul> <li>Increase outreach and education activiti municipal floodplain managers, hosted be a considered to the constant of the constant of</li></ul>			Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers
available on the website  Increase the use reverse 911, TV, radio, billboards to communicate flood warning the language.		nd	(CFM) with the Texas Floodplain Management Association Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to
shelter locations  Reduce the # of structures that have been flooding events through property buyou			incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
RFPG Recommended			
Yes □ No ✓			





#### Precinct 4 MDP - Risk Area E at Hwy 107 & Val Verde Rd.

FMP ID: 153000024

No Structural Projects (Property easement acquisitions,

elevation of structures, flood-proofing, early warn systems)

#### **FMP Description**

Channel Improvements with approximately 0.3 miles of proposed improvements. Proposed detention pond north of Tex-Mex Rd. and east of S 87th St. has an approximate footprint of 4.25 acres and capacity of 20 acre-ft. Grate Inlets and Proposed Storm Drain 5'x5' grate inlets spaced along every 500' of storm drain with a 4'x2' RCB along S 85th St.

#### Project Type

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
  - Nature Based (Structural) Projects (wetlands, bioswales, river
  - restorations, etc.)

#### Infrastructure

#### Project Area

City/ Cities

County/ Counties Hidalgo

> 12110207, HUC 8

> > 12110283

HUC 12 121102080400,

121102070100,

121102080200,

121102080200

Study Area (sq. mi.) N/A

#### **Emergency Need**

Yes ✓ No 🗆

#### Known Flood Risk

History of Flooding? Population at Risk

Roadways flooded

Critical Facilities Impacted Notes:

Yes ✓ No □ Yes □ No □ # of structures inundated Miles inundated?

Agricultural Land impacted

Yes □ No □

#### **Project Costs**

**Total Cost:** Non-reoccurring Non-capital Cost (include in Total above): Estimated year to start: Time to complete?

\$4,983,000

Hidalgo County Precinct 4 Study Sponsor: These are one-time costs for program development, education campaign, and non-

engineering study costs. Hidalgo County Precinct 4

Entity with Oversight Included in a Hazard Mitigation Yes ✓ No □

ets connecting at Existing DD1 Schunior Drain





Action Plan or other plan?

Funding Dedicated? Yes □ No ✓ (Poter	ntial) Source of Funding FIF, local
Have the flood risk and flood reduction impacts Have the flood risk and flood reduction impacts been evaluated?	been evaluated?  Yes □ No ✓
Does the project have any negative effects, per TWDB guidelines?	Yes □ No □ Unknown ✓
Does the project have a Benefit Cost Ratio greater than 1?	Yes □ No □ Unknown ✓
Does the project reduce flood risk for the 100-Yr flood event?	Yes □ No □ Unknown ✓
Does the Project provide a Water Supply Benefit?	Yes □ No ✓
Has all the ROW been acquired?	Yes □ No □
Will permits or interlocal agreements be needed for this project?	Yes □ No □
Related Goals	
✓ Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	☐ Increase the # of entities that adopt higher than NFIP-minimum standards
<ul> <li>Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain</li> </ul>	Develop and maintain an operational stormwater asset
☐ Increase the # of communities participating in the National Flood Insurance Program	management plan  Increase the # of flood gauges (rainfall/stream) in the region
<ul> <li>Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs</li> </ul>	☐ Increase the # of entities that have multi-year drainage CIP list
<ul> <li>Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards</li> </ul>	<ul> <li>Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings</li> </ul>
<ul> <li>□ Increase participation in the regional flood planning process</li> <li>✓ Provide regional detention that could be used for water reuse applications or as part of a floodplain management program</li> </ul>	<ul> <li>Increase use of nature-based flood risk reduction projects</li> <li>Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger</li> </ul>
<ul> <li>Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use</li> </ul>	<ul> <li>Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure</li> </ul>
<ul> <li>Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website</li> </ul>	<ul> <li>Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association</li> </ul>
<ul> <li>Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and</li> </ul>	<ul> <li>Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to</li> </ul>
<ul> <li>shelter locations</li> <li>Reduce the # of structures that have been subject to repeated flooding events through property buyouts</li> </ul>	incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
RFPG Recommended	
Yes □ No ✓	





# Precinct 4 MDP - Risk Area F at Texas Rd. & Cesar Chavez Rd.

#### FMP ID: 153000025

#### **FMP Description**

Channel Improvements with approximately 0.6 miles of proposed improvements. Grate Inlets and Proposed Storm Drain with grate inlets in sag spaced along every 500' tying into a 42'' RCP along Cesar Chavez Road starting at just south of Texas Rd to the Curry Drain. Culvert Improvements with connections between the proposed open channels and existing HCDD1 Edinburg Stub will require the installation of 4'x3' RCBs.

#### **Project Type**

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- ✓ Infrastructure

#### **Project Area**

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110284

HUC 12 121102080400,

121102070100,

121102080200,

121102080200

Study Area (sq. mi.) N/A

# HCDD1 Cesar Chavez Drainage Improvements (Schematics Provided) PR: Open Channel Along Existing Easements with Connection to Existing Edinburg Stub PR: 4'x3' RCB Connection

#### **Emergency Need**

Yes ✓ No 🗆

#### Known Flood Risk

History of Flooding?

Population at Risk

Roadways flooded

Critical Facilities Impacted

Notes:

Frequency of flooding:

# of structures inundated

Miles inundated?

Agricultural Land impacted Yes □ No □

Notes:

#### **Project Costs**

Total Cost: Non-reoccurring Non-capital Cost (include in Total above): Estimated year to start: \$7,920,000 Study Sponsor: Hidalgo County Precinct 4

These are one-time costs for program development, education campaign, and non-

engineering study costs.

Entity with Oversight Hidalgo County Precinct 4





					i det si iet
Time to complete?	Ind		azard Mitigation	Yes  ✓ No □	
Funding Dedicated?	Yes □ No ✓		n or other plan? ource of Funding	FIF, local	
Have the flood risk and fl	ood reduction impa	acts beer	n evaluated	?	
Have the flood risk and flood reduction	the state of the s		Yes □ No ✓		
Does the project have any negative e	ffects, per TWDB guidelines?		Yes □ No □	Unknown ✓	
Does the project have a Benefit Cost	Ratio greater than 1?		Yes □ No □	Unknown ✓	
Does the project reduce flood risk for	the 100-Yr flood event?		Yes □ No □	Unknown ✓	
Does the Project provide a Water Sup	oply Benefit?		Yes □ No ✓		
Has all the ROW been acquired?			Yes □ No □		
Will permits or interlocal agreements	s be needed for this project?		Yes □ No □		
Related Goals					
✓ Increase community access rout routes, during and after a floodi		tion 🗆	Increase the # of standards	entities that adopt hig	her than NFIP-minimum
Reduce the # of newly construct within the existing and future 10	ed vulnerable critical facilities	i 🗆	Develop and mai	intain an operational st	ormwater asset
☐ Increase the # of communities p		ood 🗆	management pla Increase the # of	flood gauges (rainfall/s	stream) in the region
<ul> <li>Decrease the average age of FEN used to define SFHAs</li> </ul>	MA Flood Insurance Rate Map	S 🗆	Increase the # of	entities that have mult	ti-year drainage CIP list
<ul> <li>Increase the coverage of availab studies with identified construct hazards</li> </ul>			Service and USG	entities that integrate S Texas Water Science ( information into their k nings	Center (TXWSC) flood
☐ Increase participation in the reg			Increase use of n	nature-based flood risk i	
<ul> <li>Provide regional detention that applications or as part of a flood</li> </ul>			response progra	nally coordinated warning that can detect the flow impending flood danger that the flood	lood threat and provide
<ul> <li>Increase acreage of publicly pro- risk areas that is reused for a be</li> </ul>		ood 🗆	Increase the amo	ount of publicly owned or future regional storm	land in the region that
<ul> <li>Increase outreach and education municipal floodplain managers,</li> </ul>	n activities, specifically targeti		Increase the prof the # of them tha	ficiency of floodplain m at are certified as Certif	nanagers by increasing fied Floodplain Managers
available on the website Increase the use reverse 911, TV	/. radio. social media. and			exas Floodplain Manag ation in the Community	
billboards to communicate flood			encouraging Reg	ion 15 floodplain mana	gement programs to
shelter locations  Reduce the # of structures that I flooding events through propert		d	and FMPs; incorp	cated drainage fees to corate noncompliance p coment in the future con	
RFPG Recommended	,		J		r · ·
Yes □ No ✓					





## Precinct 4 MDP - Risk Area G at Hoehn Rd. & Mile 11 Rd.

## FMP ID: 153000026

## **FMP Description**

Channel Improvements with approximately 0.75 miles of proposed improvements. Proposed Pond north of County Road 3424 and west of County Road 3421 has an approximate footprint of 5 acres and capacity of 35 acre-ft. Grate Inlets and Proposed Storm Drain 5'x5' grate inlets will be located at the southwest corner of Eubanks and County Road 3424 with a connection to a 42" DIA RCP storm drain. Proposed culverts

## **Project Type**

- ✓ Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- ✓ Infrastructure

## **Project Area**

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110285

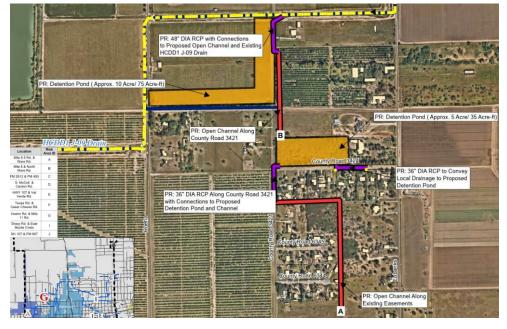
HUC 12 121102080400,

121102070100,

121102080200,

121102080200

Study Area (sq. mi.) N/A



## **Emergency Need**

Yes ✓ No 🗆

## **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency of flooding:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted

Notes:

## **Project Costs**

Total Cost: Non-reoccurring Non-capital Cost (include in Total above): Estimated year to start: Time to complete? \$6,061,000 Study Sponsor: Hidalgo County Precinct 4

These are one-time costs for program development, education campaign, and non-

Yes □ No □

engineering study costs.

Entity with Oversight Hidalgo County Precinct 4

Included in a Hazard Mitigation Yes ✓ No □





Action Plan or other plan?

(Potential) Source of Funding FIF Too

Funding Dedicated?	Yes □ No ✓ (F	Potential) So	ource of Funding FIF, local
Have the flood risk and	d flood reduction impac	cts beer	n evaluated?
Have the flood risk and flood red	uction impacts been evaluated?		Yes □ No ✓
Does the project have any negati	ve effects, per TWDB guidelines?		Yes □ No □ Unknown ✓
Does the project have a Benefit (	Cost Ratio greater than 1?		Yes □ No □ Unknown ✓
Does the project reduce flood ris	k for the 100-Yr flood event?		Yes □ No □ Unknown ✓
Does the Project provide a Wate	r Supply Benefit?		Yes □ No ✓
Has all the ROW been acquired?			Yes □ No □
Will permits or interlocal agreem	ents be needed for this project?		Yes □ No □
Related Goals			
	routes to critical facilities, evacuation	on 🗆	Increase the # of entities that adopt higher than NFIP-minimum standards
☐ Reduce the # of newly const	ructed vulnerable critical facilities		Develop and maintain an operational stormwater asset
within the existing and future Increase the # of community Insurance Program	re 100-YR floodplain les participating in the National Floo	od 🗆	management plan Increase the # of flood gauges (rainfall/stream) in the region
o o	f FEMA Flood Insurance Rate Maps		Increase the # of entities that have multi-year drainage CIP list
	ailable flood hazard data by comple truction projects to address flooding		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	regional flood planning process		Increase use of nature-based flood risk reduction projects
•	hat could be used for water reuse loodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	protected open space in critical flo	od 🗆	Increase the amount of publicly owned land in the region that
	a beneficial public use ation activities, specifically targetin ers, hosted by Region 15 RFPG and	g 🗆	can be utilized for future regional stormwater infrastructure Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers
available on the website  ☐ Increase the use reverse 91	1, TV, radio, social media, and		(CFM) with the Texas Floodplain Management Association Increase participation in the Community Rating System by
billboards to communicate t	flood warnings, evacuation routes, a		encouraging Region 15 floodplain management programs to
shelter locations  Reduce the # of structures t flooding events through pro	hat have been subject to repeated perty buyouts		incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
RFPG Recommended			
Voc - No.			





## Precinct 4 MDP - Risk Area I at Sharp Rd. & E Monte Cristo Rd

## FMP ID: 153000027

## **FMP Description**

Inlets and proposed storm drain with Approximately 1,100′ of 4′x4′ RCB storm drain with curb inlets to be installed along Hendrix Dr. and Gaston Cr. with approximately 1,200′ of 6′x4′ RCB storm with grate and sag inlets along Uresti Rd. with connection to the HCDD1 J-02 Drain. Proposed installation of grate and sag inlets along Mile 19 Rd. (Phase Two) and proposed installation of grate and sag inlets along Sharp Rd. (Phase Two). Proposed Culverts Improvements (Phase One). Proposed detention pond with 9 acre footprint. Channel maintenance.

## **Project Type**

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- ✓ Infrastructure

## **Project Area**

City/ Cities

County/ Counties Hidalgo

HUC 8 12110207,

12110286

HUC 12 121102080400,

121102070100,

121102080200,

121102080200

Study Area (sq. mi.) N/A

# PR: 5'3' RCB with Sag Inlets North of Mile 10 PR: Detention Pond Argons A Acres 95 Acre 41, PR: Detention Pond Argons Acres 95 Acres 9

## **Emergency Need**

Yes ✓ No 🗆

## **Known Flood Risk**

History of Flooding?
Population at Risk
Roadways flooded

Critical Facilities Impacted Notes:

Yes ✓ No □
Yes ✓ No □

No □

Yes  $\square$ 

Frequency of flooding:
# of structures inundated
Miles inundated?

Agricultural Land impacted Yes □ No □

## **Project Costs**

Total Cost: Non-reoccurring Non-capital Cost (include in Total above): Estimated year to start: \$5,995,000

Study Sponsor: Hidalgo County Precinct 4

These are one-time costs for program development, education campaign, and nonengineering study costs.

Entity with Oversight Hidalgo County Precinct 4





						1.6	act of icc
Time to complete?	In		azard Mitigatio		No $\square$		
Funding Dedicated?	Yes □ No ✓		n or other plan ource of Fundin		I		
Have the flood risk and floo	d reduction impa	acts beer	n evaluate	d?			
Have the flood risk and flood reduction in	•		Yes □ No ✓				
Does the project have any negative effect	ts, per TWDB guidelines?		Yes □ No □	Unknown	✓		
Does the project have a Benefit Cost Rati	o greater than 1?		Yes □ No □	Unknown	✓		
Does the project reduce flood risk for the	e 100-Yr flood event?		Yes □ No □	Unknown	✓		
Does the Project provide a Water Supply	Benefit?		Yes □ No ✓	•			
Has all the ROW been acquired?			Yes □ No □				
Will permits or interlocal agreements be	needed for this project?		Yes □ No □				
Related Goals							
✓ Increase community access routes to routes, during and after a flooding e		tion 🗆	Increase the # standards	of entities t	hat adopt hig	her than NFIP-	minimum
Reduce the # of newly constructed within the existing and future 100-Y	ulnerable critical facilities	S 🗆	Develop and management p		perational st	ormwater asse	et
☐ Increase the # of communities partice Insurance Program		ood 🗆	Increase the #		iges (rainfall/	stream) in the	region
<ul> <li>Decrease the average age of FEMA F used to define SFHAs</li> </ul>	Flood Insurance Rate Map	os 🗆	Increase the #	of entities t	hat have mul	ti-year drainag	e CIP list
<ul> <li>Increase the coverage of available fl studies with identified construction hazards</li> </ul>			Increase the # Service and US warning syster disseminate w	GS Texas W n informatio	ater Science	Center (TXWS0	C) flood
☐ Increase participation in the regiona			Increase use of	f nature-bas			
<ul> <li>Provide regional detention that coul applications or as part of a floodplai</li> </ul>		9 🗆	Develop a regiresponse progitimely warning	ram that car	n detect the f	lood threat an	
<ul> <li>Increase acreage of publicly protectorisk areas that is reused for a benefit</li> </ul>		lood 🗆	Increase the ai	nount of pu	blicly owned	land in the reg	
<ul> <li>Increase outreach and education ac municipal floodplain managers, host</li> </ul>	tivities, specifically targeti		Increase the pi	roficiency of that are cert	floodplain maified as Certif	nanagers by inc fied Floodplain	creasing n Managers
available on the website  Increase the use reverse 911, TV, rad	dio social media and		(CFM) with the Increase partic				
billboards to communicate flood wa			encouraging R	egion 15 flo	odplain mana	igement progra	ams to
shelter locations  Reduce the # of structures that have flooding events through property but		d	incorporate de and FMPs; inco regulate devel	orporate noi	ncompliance	penalties; and	who
RFPG Recommended	-		Ü			•	
Yes □ No ✓							





## Precinct 4 MDP - Risk Area J at SH 107 & FM 907

FMP ID: 153000028

No Structural Projects (Property easement acquisitions,

elevation of structures, flood-proofing, early warn systems)

## **FMP Description**

Channel Improvements (Widening & Regrading) to Existing HCDD1 "Y" drain with approximately 0.75 miles of proposed channel improvements beginning at Fresno Dr. and ending at E Curry Rd. Proposed Drainage Grate Inlets approximately 3,800' of storm drain to provide local drainage improvements north and west of existing HCDD1 "Y" Drain in two separate systems. Proposed culverts improvements. Proposed detention pond with a 2.7 acre footprint.

## Project Type

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
  - Nature Based (Structural) Projects (wetlands, bioswales, river Infrastructure
- restorations, etc.)

## Project Area

City/ Cities Insert snip of Location Map here County/ Counties Hidalgo HUC 8 12110207, 12110287 HUC 12 121102080400, 121102070100, 121102080200, 121102080200

## **Emergency Need**

Study Area (sq. mi.)

N/A

Yes ✓ No 🗆

## Known Flood Risk

History of Flooding? No □ Frequency of flooding: Population at Risk # of structures inundated Roadways flooded Yes ✓ No □ Miles inundated? Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □ Notes:

\$3,608,000

## Project Costs

**Total Cost:** Non-reoccurring Non-capital Cost (include in Total above): Estimated year to start:

Hidalgo County Precinct 4 Study Sponsor:

These are one-time costs for program development, education campaign, and nonengineering study costs.

Entity with Oversight Hidalgo County Precinct 4





					1 401 01 100
Time to complete?			lazard Mitigation an or other plan?	Yes ✓ No 🗆	
Funding Dedicated?	Yes □ No ✓		ource of Funding	FIF, local	
Have the flood risk and flood  Have the flood risk and flood reduction it		•	n evaluated? Yes □ No ✓	)	
Does the project have any negative effective	· cts, per TWDB guidelin	es?	Yes □ No □ L	Jnknown ✓	
Does the project have a Benefit Cost Rat	tio greater than 1?		Yes □ No □ U	Jnknown ✓	
Does the project reduce flood risk for th	e 100-Yr flood event?		Yes □ No □ U	Jnknown ✓	
Does the Project provide a Water Supply	/ Benefit?		Yes □ No ✓		
Has all the ROW been acquired?			Yes □ No □		
Will permits or interlocal agreements be	e needed for this projec	t?	Yes □ No □		
Related Goals					
<ul> <li>Increase community access routes routes, during and after a flooding</li> </ul>		cuation 🗆	Increase the # of e	entities that adop	pt higher than NFIP-minimum
Reduce the # of newly constructed within the existing and future 100-	vulnerable critical facil /R floodplain		Develop and mair management plar	า .	nal stormwater asset
<ul> <li>Increase the # of communities part</li> <li>Insurance Program</li> </ul>	icipating in the Nationa	al Flood 🗆	Increase the # of t	flood gauges (rai	nfall/stream) in the region
<ul> <li>Decrease the average age of FEMA used to define SFHAs</li> </ul>	Flood Insurance Rate N	Maps □	Increase the # of e	entities that have	e multi-year drainage CIP list
<ul> <li>Increase the coverage of available f studies with identified construction hazards</li> </ul>			Service and USGS	Texas Water Scienformation into t	grate National Weather ence Center (TXWSC) flood heir local capabilities to
<ul><li>Increase participation in the region</li><li>Provide regional detention that cou applications or as part of a floodpla</li></ul>	ıld be used for water re	euse 🗆	Increase use of na Develop a regiona	ature-based flood ally coordinated v n that can detect	d risk reduction projects warning and emergency the flood threat and provide
<ul> <li>Increase acreage of publicly protections risk areas that is reused for a benefit</li> </ul>	icial public use		Increase the amore can be utilized for	unt of publicly ov future regional	wned land in the region that stormwater infrastructure
<ul> <li>Increase outreach and education as municipal floodplain managers, hos available on the website</li> </ul>			the # of them that	t are certified as	ain managers by increasing Certified Floodplain Managers Nanagement Association
<ul> <li>Increase the use reverse 911, TV, rabillboards to communicate flood washelter locations</li> </ul>		utes, and	Increase participa encouraging Region	ition in the Comr on 15 floodplain	nunity Rating System by management programs to es to implement future FMEs
Reduce the # of structures that hav flooding events through property b		ated	and FMPs; incorp	orate noncompli	ance penalties; and who e conditions floodplain
RFPG Recommended					
Yes □ No ✓					





## Risk Area 11 Rancho Escondido

FMP ID: 153000029

## **FMP Description**

Project includes constructing 10'x2' U-shaped channel from Flores Drive to just south of Microtel Inn Suites, replacing existing culvert under Maza Drive with 1-8'x4 RCB, and installing curb inlet at cul-de-sac on Nancy Drive.

## **Project Type**

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- ✓ Infrastructure

## **Project Area**

City/ Cities

County/ Counties Maverick

HUC 8 13080001,

13080002

HUC 12 130800020703,

130800020702

Study Area (sq. mi.) 0.03

# Replace Existing Culvert with Proposed 8'x4' RCB Proposed Channel Widening

## **Emergency Need**

Yes ✓ No 🗆

## **Known Flood Risk**

History of Flooding? Yes ✓ No □

Population at Risk

Roadways flooded Yes ✓ No □

Critical Facilities Impacted Yes □ No □

Frequency of flooding:
# of structures inundated
Miles inundated?

Agricultural Land impacted Yes  $\square$  No  $\square$ 

## **Project Costs**

Notes:

Total Cost: Non-reoccurring Noncapital Cost (include in Total above):

Estimated year to start: Time to complete?

\$911,900 Study Sponsor: City of Eagle Pass

These are one-time costs for program development, education campaign, and non-engineering study costs.

Entity with Oversight City of Eagle Pass Included in a Hazard Mitigation Yes ✓ No □



Yes □ No ✓



## Flood Mitigation Project Fact Sheet

Action Plan or other plan? Funding Dedicated? Yes  $\ \square$  No  $\checkmark$  (Potential) Source of Funding FIF, local

Have the flood risk and flood reduction imp	pacts been evaluated?
Have the flood risk and flood reduction impacts been evaluated?	Yes □ No ✓
Does the project have any negative effects, per TWDB guidelines?	Yes □ No □ Unknown ✓
Does the project have a Benefit Cost Ratio greater than 1?	Yes □ No □ Unknown ✓
Does the project reduce flood risk for the 100-Yr flood event?	Yes □ No □ Unknown ✓
Does the Project provide a Water Supply Benefit?	Yes □ No ✓
Has all the ROW been acquired?	Yes □ No □
Will permits or interlocal agreements be needed for this project?	Yes □ No □
Related Goals	
✓ Increase community access routes to critical facilities,	☐ Increase the # of entities that adopt higher than NFIP-
evacuation routes, during and after a flooding event  Reduce the # of newly constructed vulnerable critical	minimum standards  Develop and maintain an operational stormwater asset
facilities within the existing and future 100-YR floodplain	management plan
<ul> <li>Increase the # of communities participating in the National Flood Insurance Program</li> </ul>	☐ Increase the # of flood gauges (rainfall/stream) in the
<ul> <li>Decrease the average age of FEMA Flood Insurance Rate</li> </ul>	region  Increase the # of entities that have multi-year drainage
Maps used to define SFHAs	CIP list
<ul> <li>Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards</li> </ul>	☐ Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local
	capabilities to disseminate warnings
<ul><li>Increase participation in the regional flood planning process</li><li>Provide regional detention that could be used for water</li></ul>	<ul> <li>Increase use of nature-based flood risk reduction projects</li> <li>Develop a regionally coordinated warning and emergency</li> </ul>
reuse applications or as part of a floodplain management program	response program that can detect the flood threat and provide timely warning of impending flood danger
<ul> <li>Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use</li> </ul>	<ul> <li>Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater</li> </ul>
·	infrastructure
<ul> <li>Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website</li> </ul>	<ul> <li>Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association</li> </ul>
<ul> <li>Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation</li> </ul>	☐ Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs
routes, and shelter locations	to incorporate dedicated drainage fees to implement
<ul> <li>Reduce the # of structures that have been subject to repeated flooding events through property buyouts</li> </ul>	future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
RFPG Recommended	





## Risk Area 12 Fox Borough Drive

FMP ID: 153000030

## **FMP Description**

Project includes bypassing flow from inlet at PointLoma Drive and North Point Drive to the detention pond with 1 - 8'x4' RCB and Installing additional curb inlets on N. Point Drive and Silver Oak Circle.

## **Project Type**

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- □ Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- ✓ Infrastructure

## **Project Area**

City/ Cities

County/ Counties Maverick

HUC 8 13080001,

13080002

HUC 12 130800020703,

130800020702

Study Area (sq. mi.) 0.05

## Proposed 4.5 acre Detention area Proposed 2.5 acre Detention area Risk Area 12 Add 2-36" RCP to Existing Culvert LAS CIMAS DE: Proposed Channel Widening

## **Emergency Need**

Yes ✓ No 🗆

## **Known Flood Risk**

History of Flooding?

Population at Risk

Roadways flooded

Yes ✓ No □

Wiles inundated

Yes □ No □

Notes:

Frequency of flooding:

# of structures inundated

Miles inundated?

Agricultural Land impacted

Yes □ No □

Notes:

## **Project Costs**

Total Cost: \$1,185,800 Study Sponsor: City of Eagle Pass
Non-reoccurring Noncapital Cost (include in Total above): \$1,185,800 Study Sponsor: City of Eagle Pass

These are one-time costs for program development, education campaign, and non-engineering study costs.

Estimated year to start: Entity with Oversight City of Eagle Pass Time to complete? Included in a Hazard Mitigation Yes ✓ No □





Action Plan or other plan? Funding Dedicated? Yes  $\ \square$  No  $\checkmark$  (Potential) Source of Funding FIF, local

Ha	ve the flood risk and flood reduction imp	ac	ts been evaluated?
Ha	ve the flood risk and flood reduction impacts been evaluated?		Yes □ No ✓
Do	es the project have any negative effects, per TWDB guidelines?		Yes □ No □ Unknown ✓
Do	es the project have a Benefit Cost Ratio greater than 1?		Yes □ No □ Unknown ✓
Do	es the project reduce flood risk for the 100-Yr flood event?		Yes □ No □ Unknown ✓
Do	es the Project provide a Water Supply Benefit?		Yes □ No ✓
Has	s all the ROW been acquired?		Yes □ No □
Wil	I permits or interlocal agreements be needed for this project?		Yes □ No □
Re	lated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

## **RFPG Recommended**

Yes □ No ✓





Risk Area 13 Celle De Los Santos neighborhood.

Additional culvert under irrigation canal.

FMP ID: 153000031

## **FMP Description**

Project includes upgrading existing culvert crossing irrigation canal from 2-6'x4' RCB to 4-6'x4' RCB.

## **Project Type**

- ✓ Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- ✓ Infrastructure

## **Project Area**

City/ Cities

County/ Counties Maverick

HUC 8 13080001,

13080002

HUC 12 130800020703,

130800020702

Study Area (sq. mi.) 0.03

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## **Emergency Need**

Yes ✓ No 🗆

## **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency of flooding:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

## **Project Costs**

Total Cost: \$181,500 Study Sponsor: City of Eagle Pass

Non-reoccurring Noncapital Cost (include in Total above): \$181,500 Study Sponsor: City of Eagle Pass

These are one-time costs for program development, education campaign, and non-engineering study costs.

Estimated year to start: Entity with Oversight City of Eagle Pass Time to complete? Entity with Oversight City of Eagle Pass Included in a Hazard Mitigation Yes ✓ No □





Hav	$\prime$ e the flood risk and flood reduction imp	ac	ts bee	n ev	aluated?
Hav	e the flood risk and flood reduction impacts been evaluated?		Yes □	No ✓	
Doe	s the project have any negative effects, per TWDB guidelines?		Yes □	No $\square$	Unknown ✓
Doe	s the project have a Benefit Cost Ratio greater than 1?		Yes □	No $\square$	Unknown ✓
Doe	s the project reduce flood risk for the 100-Yr flood event?		Yes □	No □	Unknown ✓
Doe	s the Project provide a Water Supply Benefit?		Yes □	No <b>✓</b>	
Has	all the ROW been acquired?		Yes □	No □	
Will	permits or interlocal agreements be needed for this project?		Yes □	No 🗆	
Rela	ated Goals				
✓	Increase community access routes to critical facilities,		Increase	the#	of entities that adopt higher than NFIP-
	evacuation routes, during and after a flooding event		minimur		
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		manage		aintain an operational stormwater asset lan
	Increase the # of communities participating in the National		•	•	of flood gauges (rainfall/stream) in the
	Flood Insurance Program		region	11 //	Continue that have not the continue of the con
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase CIP list	e tne # (	of entities that have multi-year drainage
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase Service a flood wa	and USO arning s	of entities that integrate National Weather GS Texas Water Science Center (TXWSC) system information into their local disseminate warnings
	Increase participation in the regional flood planning process		Increase	use of	nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		response	e progr	onally coordinated warning and emergency am that can detect the flood threat and warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase that can	the an be util	nount of publicly owned land in the region ized for future regional stormwater
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		increasir Floodpla	the pr ng the # ain Mar	oficiency of floodplain managers by # of them that are certified as Certified nagers (CFM) with the Texas Floodplain association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation		Increase encoura	partici ging Re	pation in the Community Rating System by gion 15 floodplain management programs
	routes, and shelter locations				dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts			s; and \	d FMPs; incorporate noncompliance who regulate development in the future dplain
RFF	PG Recommended				





## Risk Area 15 Trib 3 Detention at Main Street

FMP ID: 153000032

## **FMP Description**

Project includes constructing 10 acre detention pond (29 ac-ft volume) along East Channel north of Highway 277 and installing flap-gates at flume outfalls on Omar Drive and Jana Drive, to prevent more frequent stormwater from backing up into the neighborhood on the west side of the channel.

## **Project Type**

- ✓ Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- Infrastructure

## **Project Area**

City/ Cities

County/ Counties Maverick

HUC 8 13080001,

13080002

HUC 12 130800020703,

130800020702

Yes □ No □

Study Area (sq. mi.) 0.05

# RICHARD REPORT TO THE STATE OF THE STATE OF

## Emergency Need

Yes ✓ No 🗆

## **Known Flood Risk**

History of Flooding? Yes ✓ No □

Population at Risk

Roadways flooded Yes ✓ No □

Critical Facilities Impacted

Notes:

# of structures inundated
Miles inundated?

Agricultural Land impacted Yes □ No □

## **Project Costs**

Total Cost: Non-reoccurring Noncapital Cost (include in Total

above):

Estimated year to start:

Time to complete?

\$828,300 Study Sponsor: City of Eagle Pass

These are one-time costs for program development, education campaign, and non-engineering study costs.

Entity with Oversight City of Eagle Pass Included in a Hazard Mitigation Yes ✓ No □ Action Plan or other plan?



Yes □ No 🗸



## Flood Mitigation Project Fact Sheet

Fur	nding Dedicated? Yes $\square$ No $\checkmark$ (Potentia	I) Sou	urce of Funding FIF, local	
Hav	ve the flood risk and flood reduction impacts b	oee	n evaluated?	
Ha	ve the flood risk and flood reduction impacts been evaluated?		Yes □ No ✓	
Do	es the project have any negative effects, per TWDB guidelines?		Yes □ No □ Unknown 🗸	
Do	es the project have a Benefit Cost Ratio greater than 1?		Yes □ No □ Unknown ✓	
Do	es the project reduce flood risk for the 100-Yr flood event?		Yes □ No □ Unknown ✓	
Do	es the Project provide a Water Supply Benefit?		Yes □ No ✓	
Has	s all the ROW been acquired?		Yes □ No □	
Wil	Il permits or interlocal agreements be needed for this project?		Yes □ No □	
Rel	ated Goals			
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt high minimum standards	er than NFIP-
	Reduce the # of newly constructed vulnerable critical		Develop and maintain an operational sto	rmwater asset
	facilities within the existing and future 100-YR floodplain Increase the # of communities participating in the National Flood Insurance Program		management plan Increase the # of flood gauges (rainfall/st region	ream) in the
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi- CIP list	year drainage
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate N Service and USGS Texas Water Science Co flood warning system information into th capabilities to disseminate warnings	enter (TXWSC)
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk re Develop a regionally coordinated warning response program that can detect the flo provide timely warning of impending floo	g and emergency od threat and
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned la that can be utilized for future regional sto infrastructure	nd in the region
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain maincreasing the # of them that are certified Floodplain Managers (CFM) with the Texa Management Association	d as Certified
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community encouraging Region 15 floodplain manage to incorporate dedicated drainage fees to	ement programs implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate nonc penalties; and who regulate developmen conditions floodplain	
RFF	PG Recommended			





## Risk Area 2 Treasure Hills

FMP ID: 153000033

## **FMP Description**

Project includes constructing a 4' deep trapezoidal concrete channel with 8' bottom width and 2:1 side slopes, from detention pond outfall to existing culverts.

## **Project Type**

- ✓ Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- ✓ Infrastructure

## **Project Area**

City/ Cities

County/ Counties Maverick

HUC 8 13080001,

13080002

HUC 12 130800020703,

130800020702

Study Area (sq. mi.) 0.06

## Flowers Street Detention Pond OLMOS PARK CIR SELECTOR STREET Runoff to a Single 48" Pipe Here SUNCRESIDE TO SINCRE SUNCRESIDE TO

## **Emergency Need**

Yes ✓ No 🗆

## **Known Flood Risk**

History of Flooding?

Population at Risk

Roadways flooded

Yes ✓ No □

Wiles inundated

Yes □ No □

Notes:

Frequency of flooding:

# of structures inundated

Miles inundated?

Agricultural Land impacted Yes □ No □

No □

No □

No □

No □

No □

No □

Frequency of flooding:

# of structures inundated

Agricultural Land impacted Yes □ No □

## **Project Costs**

Total Cost: \$597,300 Study Sponsor: City of Eagle Pass

Non-reoccurring Noncapital Cost (include in Total above): \$597,300 Study Sponsor: City of Eagle Pass

These are one-time costs for program development, education campaign, and non-engineering study costs.

Estimated year to start: Entity with Oversight City of Eagle Pass Time to complete? Included in a Hazard Mitigation Yes ✓ No □



Yes □ No ✓



## Flood Mitigation Project Fact Sheet

Action Plan or other plan?

Funding Dedicated?

Yes □ No ✓ (Potential) Source of Funding FIF, local

Hav	/e the flood risk and flood reduction imp	oac	cts been evaluated?
Hav	e the flood risk and flood reduction impacts been evaluated?		Yes □ No ✓
Doe	s the project have any negative effects, per TWDB guidelines?		Yes □ No □ Unknown ✓
Doe	s the project have a Benefit Cost Ratio greater than 1?		Yes □ No □ Unknown ✓
Doe	s the project reduce flood risk for the 100-Yr flood event?		Yes □ No □ Unknown ✓
Doe	s the Project provide a Water Supply Benefit?		Yes □ No ✓
Has	all the ROW been acquired?		Yes □ No □
Will	permits or interlocal agreements be needed for this project?		Yes □ No □
Rela	ated Goals		
$\checkmark$	Increase community access routes to critical facilities,		1 3
	evacuation routes, during and after a flooding event		minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National		Increase the # of flood gauges (rainfall/stream) in the
	Flood Insurance Program  Decrease the average age of FEMA Flood Insurance Rate	П	region Increase the # of entities that have multi-year drainage
	Maps used to define SFHAs		CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs
	routes, and shelter locations Reduce the # of structures that have been subject to repeated flooding events through property buyouts		to incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future
			conditions floodplain
RFF	PG Recommended		





## Risk Area 3 Arrow Point Boulevard

FMP ID: 153000034

## **FMP Description**

Project includes constructing small retaining wall at downstream of flume outfall to force flow towards Stone Way and constructing a 2' wide and 6" deep concrete flume from existing flume outfall to Stone Way.

## **Project Type**

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- ✓ Infrastructure

## **Project Are**

City/ Cities

County/ Counties Maverick

HUC 8 13080001,

13080002

HUC 12 130800020703,

130800020702

Study Area (sq. mi.) 0.02

## 

## **Emergency Need**

Yes ✓ No 🗆

## **Known Flood Risk**

History of Flooding?

Population at Risk

Roadways flooded

Yes ✓ No □

Wiles inundated

Yes □ No □

Notes:

Frequency of flooding:

# of structures inundated

Miles inundated?

Agricultural Land impacted

Yes □ No □

No □

Notes:

## **Project Costs**

Time to complete?

Total Cost: \$52,800 Study Sponsor: City of Eagle Pass

Non-reoccurring Noncapital Cost (include in Total above):

Estimated year to start: \$52,800 Study Sponsor: City of Eagle Pass

These are one-time costs for program development, education campaign, and non-engineering study costs.

Entity with Oversight City of Eagle Pass

Entity with Oversight City of Eagle Pass Included in a Hazard Mitigation Yes  $\checkmark$  No  $\Box$ 





Hav	$\prime$ e the flood risk and flood reduction imp	ac	ts bee	n ev	aluated?
Hav	e the flood risk and flood reduction impacts been evaluated?		Yes □	No ✓	
Doe	s the project have any negative effects, per TWDB guidelines?		Yes □	No $\square$	Unknown ✓
Doe	s the project have a Benefit Cost Ratio greater than 1?		Yes □	No $\square$	Unknown ✓
Doe	s the project reduce flood risk for the 100-Yr flood event?		Yes □	No □	Unknown ✓
Doe	s the Project provide a Water Supply Benefit?		Yes □	No <b>✓</b>	
Has	all the ROW been acquired?		Yes □	No □	
Will	permits or interlocal agreements be needed for this project?		Yes □	No 🗆	
Rela	ated Goals				
✓	Increase community access routes to critical facilities,		Increase	the#	of entities that adopt higher than NFIP-
	evacuation routes, during and after a flooding event		minimur		
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		manage		aintain an operational stormwater asset lan
	Increase the # of communities participating in the National		•	•	of flood gauges (rainfall/stream) in the
	Flood Insurance Program		region	11 //	Continue that have not the continue of the con
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase CIP list	e tne # (	of entities that have multi-year drainage
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase Service a flood wa	and USO arning s	of entities that integrate National Weather GS Texas Water Science Center (TXWSC) system information into their local disseminate warnings
	Increase participation in the regional flood planning process		Increase	use of	nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		response	e progr	onally coordinated warning and emergency am that can detect the flood threat and warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase that can	the an be util	nount of publicly owned land in the region ized for future regional stormwater
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		increasir Floodpla	the pr ng the # ain Mar	oficiency of floodplain managers by # of them that are certified as Certified nagers (CFM) with the Texas Floodplain association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation		Increase encoura	partici ging Re	pation in the Community Rating System by gion 15 floodplain management programs
	routes, and shelter locations				dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts			s; and \	d FMPs; incorporate noncompliance who regulate development in the future dplain
RFF	PG Recommended				





## Risk Area 4 Bibb & Misty Willow storm drain

FMP ID: 153000035

## **FMP Description**

Project includes installing 6'x4' RCB along Misty Willow Drive from N Bibb Avenue to existing channel between N Bibb Avenue and Timber Valley and installing curb inlets on N Bibb Avenue and Misty Willow Drive.

## **Project Type**

- ✓ Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- ✓ Infrastructure

## **Project Area**

City/ Cities

County/ Counties Maverick

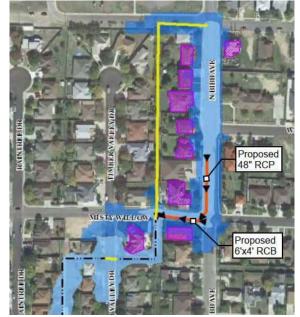
HUC 8 13080001,

13080002

HUC 12 130800020703,

130800020702

Study Area (sq. mi.) 0.02



## **Emergency Need**

Yes ✓ No 🗆

## **Known Flood Risk**

History of Flooding?

Population at Risk

Roadways flooded

Yes ✓ No □

Wiles inundated

Yes □ No □

Notes:

Frequency of flooding:

# of structures inundated

Miles inundated?

Agricultural Land impacted Yes □ No □

No □

No □

No □

No □

No □

No □

Frequency of flooding:

# of structures inundated

Agricultural Land impacted Yes □ No □

## **Project Costs**

Total Cost: \$316,800 Study Sponsor: City of Eagle Pass

Non-reoccurring Noncapital Cost (include in Total above): \$16,800 Study Sponsor: City of Eagle Pass

These are one-time costs for program development, education campaign, and non-engineering study costs.

Estimated year to start: Entity with Oversight City of Eagle Pass Time to complete? Included in a Hazard Mitigation Yes ✓ No □





Hav	$\prime$ e the flood risk and flood reduction imp	ac	ts bee	n ev	aluated?
Hav	e the flood risk and flood reduction impacts been evaluated?		Yes □	No ✓	
Doe	s the project have any negative effects, per TWDB guidelines?		Yes □	No $\square$	Unknown ✓
Doe	s the project have a Benefit Cost Ratio greater than 1?		Yes □	No $\square$	Unknown ✓
Doe	s the project reduce flood risk for the 100-Yr flood event?		Yes □	No □	Unknown ✓
Doe	s the Project provide a Water Supply Benefit?		Yes □	No <b>✓</b>	
Has	all the ROW been acquired?		Yes □	No □	
Will	permits or interlocal agreements be needed for this project?		Yes □	No 🗆	
Rela	ated Goals				
✓	Increase community access routes to critical facilities,		Increase	the#	of entities that adopt higher than NFIP-
	evacuation routes, during and after a flooding event		minimur		
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		manage		aintain an operational stormwater asset lan
	Increase the # of communities participating in the National		•	•	of flood gauges (rainfall/stream) in the
	Flood Insurance Program		region	11 //	Continue that have not the continue of the con
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase CIP list	e tne # (	of entities that have multi-year drainage
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase Service a flood wa	and USO arning s	of entities that integrate National Weather GS Texas Water Science Center (TXWSC) system information into their local disseminate warnings
	Increase participation in the regional flood planning process		Increase	use of	nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		response	e progr	onally coordinated warning and emergency am that can detect the flood threat and warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase that can	the an be util	nount of publicly owned land in the region ized for future regional stormwater
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		increasir Floodpla	the pr ng the # ain Mar	oficiency of floodplain managers by # of them that are certified as Certified nagers (CFM) with the Texas Floodplain association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation		Increase encoura	partici ging Re	pation in the Community Rating System by gion 15 floodplain management programs
	routes, and shelter locations				dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts			s; and \	d FMPs; incorporate noncompliance who regulate development in the future dplain
RFF	PG Recommended				





## Risk Area 5 Debona Drive

FMP ID: 153000036

## **FMP Description**

Project includes constructing a 5' deep trapezoidal channel approximately 30 feet wide with 3:1 side slopes and a 5' concrete pilot channel, replacing Juarez Street culvert with 8'x4' box culvert, and realigning existing channel to provide additional distance from homes.

## **Project Type**

- ✓ Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- ✓ Infrastructure

## **Project Area**

City/ Cities

County/ Counties Maverick

HUC 8 13080001,

13080002

HUC 12 130800020703,

130800020702

Study Area (sq. mi.) 0.02

## Proposed Channel Widening Project removes flooding of intersection Eagle Pass Creek Tributary 2 Proposed B'x4' RCB

## **Emergency Need**

Yes ✓ No 🗆

## **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency of flooding:

Population at Risk # of structures inundated

Roadways flooded Yes ✓ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

## **Project Costs**

Notes:

Total Cost: \$359,700

Non-reoccurring Non- T

capital Cost (include in Total above):

Estimated year to start:

Time to complete?

Entity with Oversight City of Eagle Pass Included in a Hazard Mitigation Yes ✓ No □

Action Plan or other plan?

Study Sponsor: City of Eagle Pass
These are one-time costs for program development, education campaign, and

non-engineering study costs.



Yes □ No 🗸



## Flood Mitigation Project Fact Sheet

Fur	nding Dedicated? Yes $\square$ No $\checkmark$ (Potentia	I) Sou	urce of Funding FIF, local	
Hav	ve the flood risk and flood reduction impacts b	oee	n evaluated?	
Ha	ve the flood risk and flood reduction impacts been evaluated?		Yes □ No ✓	
Do	es the project have any negative effects, per TWDB guidelines?		Yes □ No □ Unknown 🗸	
Do	es the project have a Benefit Cost Ratio greater than 1?		Yes □ No □ Unknown ✓	
Do	es the project reduce flood risk for the 100-Yr flood event?		Yes □ No □ Unknown ✓	
Do	es the Project provide a Water Supply Benefit?		Yes □ No ✓	
Has	s all the ROW been acquired?		Yes □ No □	
Wil	Il permits or interlocal agreements be needed for this project?		Yes □ No □	
Rel	ated Goals			
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt high minimum standards	er than NFIP-
	Reduce the # of newly constructed vulnerable critical		Develop and maintain an operational sto	rmwater asset
	facilities within the existing and future 100-YR floodplain Increase the # of communities participating in the National Flood Insurance Program		management plan Increase the # of flood gauges (rainfall/st region	ream) in the
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi- CIP list	year drainage
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate N Service and USGS Texas Water Science Co flood warning system information into th capabilities to disseminate warnings	enter (TXWSC)
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk re Develop a regionally coordinated warning response program that can detect the flo provide timely warning of impending floo	g and emergency od threat and
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned la that can be utilized for future regional sto infrastructure	nd in the region
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain maincreasing the # of them that are certified Floodplain Managers (CFM) with the Texa Management Association	d as Certified
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community encouraging Region 15 floodplain manage to incorporate dedicated drainage fees to	ement programs implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate nonc penalties; and who regulate developmen conditions floodplain	
RFF	PG Recommended			





## Risk Area 6 Trib 2 bypass & detention at Eagle Pass High School fields

FMP ID: 153000037

## **FMP Description**

Project includes bypassing flow from Golfcrest Drive to the detention pond with 1-6'x4', RCB Modifying outfall structure from 2-5'x3' RCB to 1-5'x3' RCB, and Lowering existing baseball field by 3 ft to provide an additional 30 ac-ft of storage.

## **Project Type**

- ☐ Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- □ Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- ✓ Infrastructure

## **Project Area**

City/ Cities

County/ Counties Maverick

HUC 8 13080001,

13080002

HUC 12 130800020703,

130800020702

Study Area (sq. mi.) 0.10

## BOTHOLERANS BOTHOLERANS BOTHOLERANS GOLFCRESTOR 1,670 LF flood wall addition Froposed 6'x4' RCB Proposed 6'x4' RCB Proposed 6'x4' RCB Froposed Both Individual Improvements with Outfall Modification Fagle Pass High School

## **Emergency Need**

Yes ✓ No 🗆

## **Known Flood Risk**

History of Flooding?

Population at Risk

Roadways flooded

Yes ✓ No □

Wiles inundated

Yes □ No □

Notes:

Frequency of flooding:

# of structures inundated

Miles inundated?

Agricultural Land impacted Yes □ No □

No □

Notes:

## **Project Costs**

Time to complete?

Total Cost: \$957,000 Study Sponsor: City of Eagle Pass

Non-reoccurring Noncapital Cost (include in Total above):

Estimated year to start: \$957,000 Study Sponsor: City of Eagle Pass

These are one-time costs for program development, education campaign, and non-engineering study costs.

Entity with Oversight City of Eagle Pass

Entity with Oversight City of Eagle Pass Included in a Hazard Mitigation Yes ✓ No □



RFPG Recommended

Yes □ No ✓



## Flood Mitigation Project Fact Sheet

Action Plan or other plan? Funding Dedicated? Yes □ No ✓ (Potential) Source of Funding FIF, local Have the flood risk and flood reduction impacts been evaluated? Have the flood risk and flood reduction impacts been evaluated? Does the project have any negative effects, per TWDB guidelines? Yes □ No □ Unknown ✓ Does the project have a Benefit Cost Ratio greater than 1? Yes □ No □ Unknown ✓ Does the project reduce flood risk for the 100-Yr flood event? Yes □ No □ Unknown ✓ Does the Project provide a Water Supply Benefit? Yes □ No ✓ Has all the ROW been acquired? Yes □ No □ Will permits or interlocal agreements be needed for this project? Yes □ No □ **Related Goals** Increase community access routes to critical facilities, Increase the # of entities that adopt higher than NFIPevacuation routes, during and after a flooding event minimum standards Reduce the # of newly constructed vulnerable critical Develop and maintain an operational stormwater asset facilities within the existing and future 100-YR floodplain management plan Increase the # of communities participating in the National Increase the # of flood gauges (rainfall/stream) in the Flood Insurance Program region Decrease the average age of FEMA Flood Insurance Rate Increase the # of entities that have multi-year drainage Maps used to define SFHAs CIP list Increase the coverage of available flood hazard data by Increase the # of entities that integrate National Weather completing studies with identified construction projects to Service and USGS Texas Water Science Center (TXWSC) address flooding hazards flood warning system information into their local capabilities to disseminate warnings Increase participation in the regional flood planning process Increase use of nature-based flood risk reduction projects Provide regional detention that could be used for water Develop a regionally coordinated warning and emergency reuse applications or as part of a floodplain management response program that can detect the flood threat and program provide timely warning of impending flood danger Increase acreage of publicly protected open space in critical Increase the amount of publicly owned land in the region flood risk areas that is reused for a beneficial public use that can be utilized for future regional stormwater infrastructure Increase outreach and education activities, specifically Increase the proficiency of floodplain managers by targeting municipal floodplain managers, hosted by Region increasing the # of them that are certified as Certified 15 RFPG and available on the website Floodplain Managers (CFM) with the Texas Floodplain Management Association Increase the use reverse 911, TV, radio, social media, and Increase participation in the Community Rating System by billboards to communicate flood warnings, evacuation encouraging Region 15 floodplain management programs routes, and shelter locations to incorporate dedicated drainage fees to implement Reduce the # of structures that have been subject to future FMEs and FMPs; incorporate noncompliance repeated flooding events through property buyouts penalties; and who regulate development in the future conditions floodplain





## Risk Area 8 Tributary 2 channel widening near **Alexander Drive**

FMP ID: 153000038

## **FMP Description**

Project includes constructing a 3' deep trapezoidal channel with a 76' bottom width with 4:1 side slopes from Graves Elementary School to the confluence of existing channels and constructing a 4' deep trapezoidal channel with a 11' bottom width with 4:1 side slopes from confluence of existing channels to existing culvert at Kelso Drive.

## Project Type

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- No Structural Projects (Property easement acquisitions, elevation of structures, flood-proofing, early warn systems)
- Infrastructure

## Project Area

City/ Cities

County/ Counties Maverick

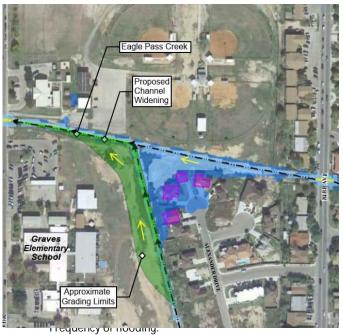
> HUC 8 13080001,

> > 13080002

HUC 12 130800020703,

130800020702

Study Area (sq. mi.)



# of structures inundated Miles inundated?

Agricultural Land impacted Yes □ No □

## **Emergency Need**

Yes ✓ No 🗆

## Known Flood Risk

History of Flooding? Yes ✓ Population at Risk

Roadways flooded

Yes ✓ No □

No □

Critical Facilities Impacted

Yes □ No □

Notes:

## Project Costs

**Total Cost:** Non-reoccurring Non-capital Cost (include in Total above): Estimated year to start: Time to complete?

Funding Dedicated? Yes □ No ✓

\$80,300 Study Sponsor: City of Eagle Pass

These are one-time costs for program development, education campaign, and nonengineering study costs.

**Entity with Oversight** City of Eagle Pass Included in a Hazard Mitigation Yes ✓ No 🗆

Action Plan or other plan?

(Potential) Source of Funding FIF, local



Yes □ No ✓



## Flood Mitigation Project Fact Sheet

## Have the flood risk and flood reduction impacts been evaluated?

Have	the flood risk and flood reduction impacts been evaluated?	Yes □ No ✓
Does	the project have any negative effects, per TWDB guidelines?	Yes □ No □ Unknown ✓
Does	the project have a Benefit Cost Ratio greater than 1?	Yes □ No □ Unknown ✓
Does	the project reduce flood risk for the 100-Yr flood event?	Yes □ No □ Unknown ✓
Does	the Project provide a Water Supply Benefit?	Yes □ No ✓
Has a	II the ROW been acquired?	Yes □ No □
Will p	permits or interlocal agreements be needed for this project?	Yes □ No □
Relat	ted Goals	
<b>√</b>	ncrease community access routes to critical facilities, evacuation	Increase the # of entities that adopt higher than NFIP-minimum
	routes, during and after a flooding event Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain	standards Develop and maintain an operational stormwater asset management plan
	ncrease the # of communities participating in the National Flood nsurance Program	Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs	Increase the # of entities that have multi-year drainage CIP list
S	ncrease the coverage of available flood hazard data by completing studies with identified construction projects to address flooding nazards	Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	ncrease participation in the regional flood planning process	Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program	Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	ncrease acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use	Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
r	ncrease outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers
□ I	available on the website ncrease the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations	(CFM) with the Texas Floodplain Management Association Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement future FMEs
	Reduce the # of structures that have been subject to repeated looding events through property buyouts	and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
RFPC	G Recommended	





## Alton MDP - North Inspiration Road and West St. Jude Avenue

FMP ID: 153000039

## **FMP Description**

Upsize The Storm Drain Under West St. Jude Avenue. Trunk Line Will Consist Of 1900 Lf Of A Single 7'X5' Rcb Sloped At 0.5% From The Area Just West Of The Neighborhood On W. St. Jude Avenue To The West Main Drain Channel, Downstream (North) Of The Existing 10'X7' Box Culvert. Discharging At An Angle On The Northside Of St. Jude Avenue Will Improve Efficiency Where The Tailwater Of West Main Drain Is Much Lower. Small Detention Pond Will Be Required On The Westside Of The Houses On Rhode Island St To Capture Runoff From The 700 Acres Mentioned Earlier. Berm Improvements Are Recommended Along The West Main Drain Bank. Overall, 72 Existing Structures Will Be Removed From The 25 Yr. Floodplain.

## Project Type

- Structural Project (retention/ detention, levees, channelization, dams, low water crossing, flow structures, reservoirs, storm drainage improvements, etc.)
- elevation of structures, flood-proofing, early warn systems)

No Structural Projects (Property easement acquisitions,

- Nature Based (Structural) Projects (wetlands, bioswales, river restorations, etc.)
- Infrastructure

## Project Area

City/ Cities

County/ Counties Hidalgo

> HUC 8 12110207,

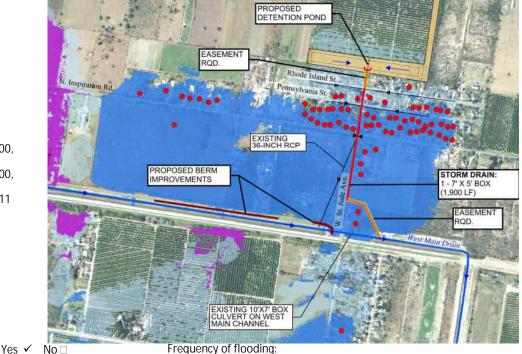
> > 12110258

HUC 12 121102080100,

121102080300.

130900020311

Study Area (sq. mi.) N/A



## **Emergency Need**

Yes ✓ No 🗆

### Known Flood Risk

History of Flooding? Population at Risk Roadways flooded

Critical Facilities Impacted

Yes ✓ No □ Yes □ No □

# of structures inundated

Miles inundated?

Agricultural Land impacted Yes □ No □

Notes:

## **Project Costs**

**Total Cost:** Non-reoccurring Non-capital Cost (include in Total above): Estimated year to start:

\$2,609,200

Study Sponsor: City of Alton

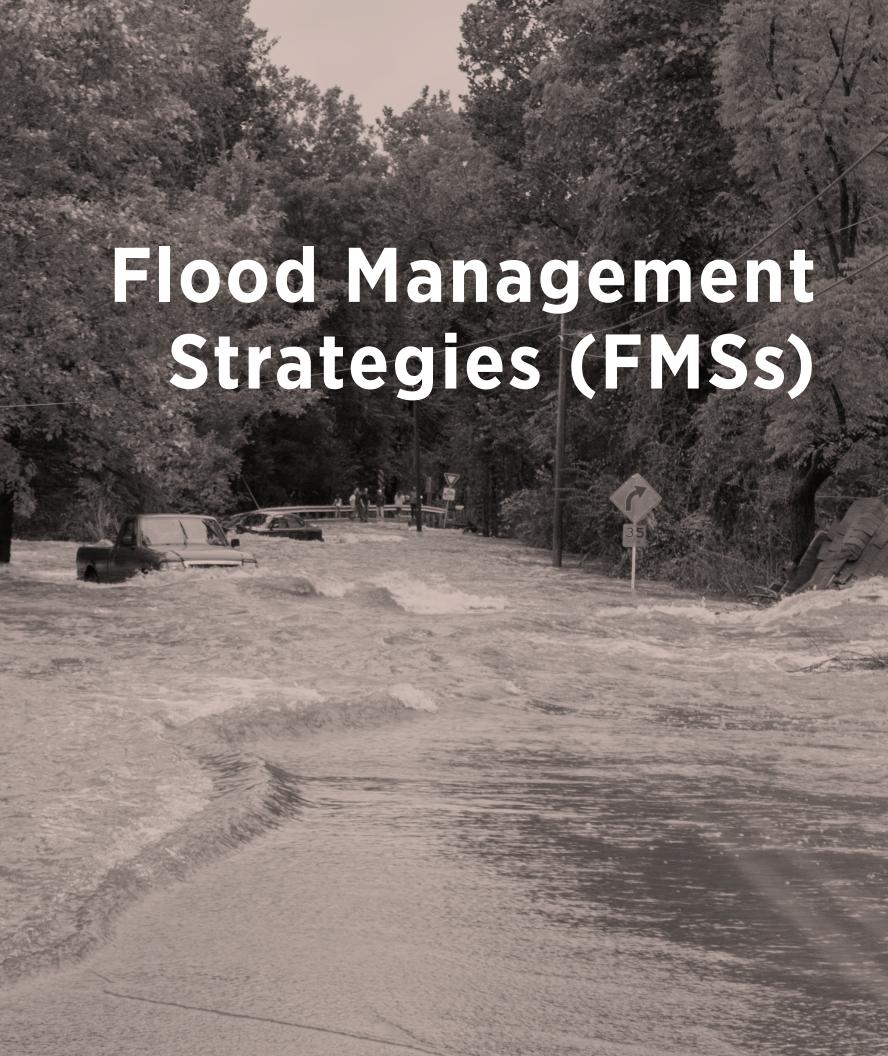
These are one-time costs for program development, education campaign, and nonengineering study costs.

> **Entity with Oversight** City of Alton





						1 401 01 100
Time to complete?	I		lazard Mitigation an or other plan?	Yes ✓ No		
Funding Dedicated?	Yes □ No ✓		ource of Funding	FIF, local		
Have the flood risk and floo	od reduction imp	acts beer	n evaluated'	?		
Have the flood risk and flood reduction	· ·		Yes □ No ✓			
Does the project have any negative effe	ects, per TWDB guidelines	?	Yes □ No □	Unknown ✓		
Does the project have a Benefit Cost Ra	tio greater than 1?		Yes □ No □	Unknown ✓		
Does the project reduce flood risk for the	ne 100-Yr flood event?		Yes □ No □	Unknown ✓		
Does the Project provide a Water Suppl	y Benefit?		Yes □ No ✓			
Has all the ROW been acquired?			Yes □ No □			
Will permits or interlocal agreements be	e needed for this project?	•	Yes □ No □			
Related Goals						
✓ Increase community access routes	to critical facilities, evacu	ation $\square$	Increase the # of	entities that	adopt higher than	n NFIP-minimum
routes, during and after a flooding		_	standards			
<ul> <li>Reduce the # of newly constructed within the existing and future 100-</li> </ul>		es 🗆	management pla		ational stormwat	ier asset
<ul> <li>Increase the # of communities part Insurance Program</li> </ul>	•	Flood 🗆			(rainfall/stream)	in the region
<ul> <li>Decrease the average age of FEMA used to define SFHAs</li> </ul>	Flood Insurance Rate Ma	ips 🗆	Increase the # of	entities that	have multi-year c	drainage CIP list
<ul> <li>Increase the coverage of available studies with identified construction hazards</li> </ul>			Service and USG	S Texas Water information ir	integrate Nationa · Science Center ( nto their local cap	(TXWSC) flood
☐ Increase participation in the region			Increase use of n	nature-based f	Tood risk reduction	
<ul> <li>Provide regional detention that co- applications or as part of a floodpla</li> </ul>			response progra	m that can de	ted warning and e tect the flood thr	
<ul> <li>Increase acreage of publicly protection</li> <li>risk areas that is reused for a bene</li> </ul>		flood		ount of public	ly owned land in inal stormwater i	
<ul> <li>Increase outreach and education a municipal floodplain managers, ho</li> </ul>	ctivities, specifically targe		Increase the prof	ficiency of floo	odplain managers	
available on the website	sted by Region 15 Ki FG a	Hu			in Management <i>i</i>	
<ul> <li>Increase the use reverse 911, TV, r billboards to communicate flood w</li> </ul>		es, and	Increase particip	ation in the Co	ommunity Rating Iain management	System by
shelter locations  Reduce the # of structures that have flooding events through property k		ed	and FMPs; incorp	oorate noncor	e fees to implem npliance penaltie uture conditions	es; and who
RFPG Recommended	<del>,</del> 0		3		3 33 13 13 13	
Yes □ No ✓						







## Flood Management Strategies Fact Sheet

FMS ID: 152000018

## Rancho Viejo Action #3

## **FMS Description**

Adopt the International Building Code (IBC) and International Residential Code (IRC); revise and update regulatory floodplain

maps; adopt higher st damage, etc.	andards in floodpla	in ordinand	ces including freeboard, no-rise in tl	he floodplain, cumulative substantia
Strategy Type				
<ul><li>☐ Education and Outr</li><li>☐ Protected Areas</li></ul>	reach Activities		degulatory and Guidance evelopment Standards	<ul><li>☐ Flood Preparedness Programs</li><li>☐ Other:</li></ul>
Strategy Area				
City/ Cities	Rancho Viejo		Insert snip of Lo	ocation Map here
County/ Counties	Cameron			
HUC 8	12110208			
HUC 12				
Study Area (sq. mi.)				
Emergency Ne Yes ✓ No □	ed			
Known Flood R	Risk			
History of Flooding? Population at Risk	Yes ✓	No □	Frequency of flooding: # of structures inundated	
Roadways flooded Critical Facilities Impa Notes:	Yes   cted Yes	No □ No □	Miles inundated? Agricultural Land impacted	Yes □ No □

## Strategy Costs

Total Cost:	\$5,000	Study Sponsor:	Rancho Viejo	
Non-reoccurring Non- capital Cost (include in Total above):		These are one-time costs for program development, education campaign, ar non-engineering study costs.		
Estimated year to start:	2018	Entity with Oversight	Rancho Viejo	
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No □	
	2020	Action Plan or other plan?		
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	Local Funds; HMGP	



Yes ✓ No 🗆



## Flood Management Strategies Fact Sheet

Have the flood risk and flood reduction impacts been evaluated	Have the flood	I risk and flood	I reduction im	pacts been	evaluated?
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Yes	□ No ✓		
	s the strategy missing sufficient data to assess whether the pro DB guidelines?	pose	ed strategy has a negative effect, per Yes □ No ✓
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event Reduce the # of newly constructed vulnerable critical	<b>√</b>	Increase the # of entities that adopt higher than NFIP- minimum standards Develop and maintain an operational stormwater asset
	facilities within the existing and future 100-YR floodplain Increase the # of communities participating in the National Flood Insurance Program		management plan Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs Increase the coverage of available flood hazard data by		Increase the # of entities that have multi-year drainage CIP list Increase the # of entities that integrate National Weather
	completing studies with identified construction projects to address flooding hazards		Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
RFI	PG Recommended		





## Flood Management Strategies Fact Sheet

## Rancho Viejo Action #11

FMS ID: 152000019

## **FMS Description**

Update website with r hazard-prone areas or	naps and informati		ng StormReady data and links; Mail e uce damages	educational brochures to residents in
Strategy Type ✓ Education and Outr □ Protected Areas	reach Activities		Regulatory and Guidance Development Standards	<ul><li>☐ Flood Preparedness Programs</li><li>☐ Other:</li></ul>
Strategy Area City/ Cities	Rancho Viejo		Insert snip of Lo	cation Map here
County/ Counties	Cameron			
HUC 8	12110208			
HUC 12				
Study Area (sq. mi.)				
Emergency Nee Yes ✓ No □	ed			
Known Flood R History of Flooding?	isk Yes ✓	No □	Frequency of flooding:	
Population at Risk	163 •	INO 🗆	# of structures inundated	
Roadways flooded	Yes □	No □	Miles inundated?	
Critical Facilities Impac Notes:	cted Yes 🗆	No □	Agricultural Land impacted	Yes □ No □

## **Strategy Costs**

Total Cost:	\$5,000	Study Sponsor:	Rancho Viejo	
Non-reoccurring Non- capital Cost (include in Total above):		These are one-time costs for program development, education campaign, an non-engineering study costs.		
Estimated year to start:	2018	Entity with Oversight	Rancho Viejo	
Time to complete?	2020	Included in a Hazard Mitigation Action Plan or other plan?	Yes ✓ No 🗆	
Funding Dedicated?	Yes □ No ✓	(Potential) Source of Funding	Local Funds; HMGP	



Yes ✓ No 🗆



## Flood Management Strategies Fact Sheet

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Have	t <b>h</b> e	tlood	risk	and	tiood	rec	ווורלוטו	า IM	nacts	neen	evalu	ated?
IIUVC	UIIO	11000	1131	ullu	11000		1001101		pacts		CVUIG	atou.

Yes □ No ✓	'	
Was the strategy missing sufficient data to asse TWDB guidelines?	ss whether the propose	ed strategy has a negative effect, per Yes □ No ✓
Related Goals		
<ul> <li>Increase community access routes to critical evacuation routes, during and after a flood</li> </ul>	ing event	Increase the # of entities that adopt higher than NFIP-minimum standards
<ul> <li>Reduce the # of newly constructed vulneral facilities within the existing and future 100-</li> </ul>		Develop and maintain an operational stormwater asset management plan
☐ Increase the # of communities participating Flood Insurance Program	•	Increase the # of flood gauges (rainfall/stream) in the region
<ul> <li>Decrease the average age of FEMA Flood In Maps used to define SFHAs</li> </ul>		Increase the # of entities that have multi-year drainage CIP list
<ul> <li>Increase the coverage of available flood has completing studies with identified construct address flooding hazards</li> </ul>		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
☐ Increase participation in the regional flood		Increase use of nature-based flood risk reduction projects
<ul> <li>Provide regional detention that could be us reuse applications or as part of a floodplain program</li> </ul>		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
Increase acreage of publicly protected oper flood risk areas that is reused for a benefici		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
<ul> <li>Increase outreach and education activities, targeting municipal floodplain managers, he</li> <li>15 RFPG and available on the website</li> </ul>		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
<ul> <li>Increase the use reverse 911, TV, radio, soci billboards to communicate flood warnings, routes, and shelter locations</li> </ul>		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
Reduce the # of structures that have been s repeated flooding events through property	-	future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
RFPG Recommended		





## Flood Management Strategies Fact Sheet

Rio Hondo Action #4

FMS ID: 152000020

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НVI	SL	escri	ıbtı	or

Strategy Type			
☐ Education and Outreach Activities ☐ Protected Areas		<ul><li>✓ Regulatory and Guidance</li><li>□ Development Standards</li></ul>	<ul><li>☐ Flood Preparedness Programs</li><li>☐ Other:</li></ul>
Strategy Area City/ Cities	Rio Hondo	Insert snip	of Location Map here
County/ Counties	Cameron		
HUC 8	12110208		
HUC 12			
Study Area (sq. mi.)			
Emergency Ne Yes ✓ No □	ed		

## **Known Flood Risk**

History of Flooding?	Yes  ✓ No 🗆	Frequency of flooding:	
Population at Risk		# of structures inundated	
Roadways flooded	Yes □ No □	Miles inundated?	
Critical Facilities Impacted	Yes □ No □	Agricultural Land impacted	Yes □ No □
Notes:			

## **Strategy Costs**

Total Cost:	\$2,000,000	Study Sponsor:	Rio Hondo
Non-reoccurring Non-		These are one-time costs for program development, education campaign, and	
capital Cost (include in Total		non-engineering study costs.	
above):			
Estimated year to start:	2021	Entity with Oversight	Rio Hondo
Time to complete?	2023	Included in a Hazard Mitigation	Yes ✓ No □
		Action Plan or other plan?	
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	USDA; City Funds; HMGP

Have the flood risk and flood reduction impacts been evaluated and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and f	ıate	ЭС	C
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Yes	Nο	./
YAC	1/1()	v



RFPG Recommended

Yes ✓ No □

## **FMS**

## Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per	Yes □	No <b>✓</b>
TWDB quidelines?		

### Related Goals Increase community access routes to critical facilities, Increase the # of entities that adopt higher than NFIPevacuation routes, during and after a flooding event minimum standards Reduce the # of newly constructed vulnerable critical Develop and maintain an operational stormwater asset facilities within the existing and future 100-YR floodplain management plan Increase the # of communities participating in the National Increase the # of flood gauges (rainfall/stream) in the Flood Insurance Program Decrease the average age of FEMA Flood Insurance Rate Increase the # of entities that have multi-year drainage Maps used to define SFHAs Increase the coverage of available flood hazard data by Increase the # of entities that integrate National Weather completing studies with identified construction projects to Service and USGS Texas Water Science Center (TXWSC) address flooding hazards flood warning system information into their local capabilities to disseminate warnings Increase participation in the regional flood planning process Increase use of nature-based flood risk reduction projects Provide regional detention that could be used for water Develop a regionally coordinated warning and emergency response program that can detect the flood threat and reuse applications or as part of a floodplain management program provide timely warning of impending flood danger Increase acreage of publicly protected open space in critical Increase the amount of publicly owned land in the region flood risk areas that is reused for a beneficial public use that can be utilized for future regional stormwater infrastructure Increase outreach and education activities, specifically Increase the proficiency of floodplain managers by targeting municipal floodplain managers, hosted by Region increasing the # of them that are certified as Certified 15 RFPG and available on the website Floodplain Managers (CFM) with the Texas Floodplain Management Association Increase the use reverse 911, TV, radio, social media, and Increase participation in the Community Rating System by billboards to communicate flood warnings, evacuation encouraging Region 15 floodplain management programs routes, and shelter locations to incorporate dedicated drainage fees to implement Reduce the # of structures that have been subject to future FMEs and FMPs; incorporate noncompliance repeated flooding events through property buyouts penalties; and who regulate development in the future conditions floodplain





FMS ID: 152000021

#### San Benito Action #13

Adopt higher standard protection to structure	ds into the flood da		ention ordinance to limit floodplain	development and provide higher
Strategy Type  □ Education and Outr □ Protected Areas	reach Activities		egulatory and Guidance Development Standards	<ul><li>☐ Flood Preparedness Programs</li><li>☐ Other:</li></ul>
Strategy Area City/ Cities	San Benito		Insert snip of Lo	ocation Map here
County/ Counties	Cameron			
HUC 8	12110208			
HUC 12				
Study Area (sq. mi.)				
Emergency Nec Yes ✓ No □	ed			
Known Flood R	risk			
History of Flooding? Population at Risk	Yes ✓	No □	Frequency of flooding: # of structures inundated	
Roadways flooded	Yes 🗆	No □	Miles inundated?	Vac 🗆 Na 🗆
Critical Facilities Impa Notes:	cted Yes 🗆	No □	Agricultural Land impacted	Yes □ No □

Total Cost:	\$10,000	Study Sponsor:	San Benito		
Non-reoccurring Non-		These are one-time costs for program development, education campaign, and			
capital Cost (include in Total		non-engineering study costs.			
above):					
Estimated year to start:	2020	Entity with Oversight	San Benito		
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No □		
	2022	Action Plan or other plan?			
Funding Dedicated?	Yes □ No ✓	(Potential) Source of Funding	CDBG; EDC; Pre-Disaster Mitigation Grant		
			Program		



Yes ✓ No 🗆



#### Flood Management Strategies Fact Sheet

#### Have the flood risk and flood reduction impacts been evaluated?

Yes	□ No ✓		
	s the strategy missing sufficient data to assess whether the pro DB guidelines?	opose	ed strategy has a negative effect, per Yes □ No ✓
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	✓	Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
RFF	PG Recommended		





#### **South Padre Island Action #3**

FMS ID: 152000023

	<b>FMS</b>	Descri	ption
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Adoption erosion con		nibit development in high-hazard areas	S
Strategy Type  □ Education and Outr □ Protected Areas	reach Activities	<ul><li>✓ Regulatory and Guidance</li><li>□ Development Standards</li></ul>	<ul><li>☐ Flood Preparedness Programs</li><li>☐ Other:</li></ul>
Strategy Area City/ Cities	South Padre Island	Insert snip o	of Location Map here
County/ Counties	Cameron		
HUC 8	12110208		
HUC 12			
Study Area (sq. mi.)			
Emergency Never Yes ✓ No □	ed		

#### **Known Flood Risk**

History of Flooding?	Yes ✓	No □	Frequency of flooding:		
Population at Risk			# of structures inundated		
Roadways flooded	Yes 🗆	No $\square$	Miles inundated?		
Critical Facilities Impacted	Yes 🗆	No $\square$	Agricultural Land impacted	Yes □	No $\square$
Notes:					

Total Cost:	\$5,000	Study Sponsor:	South Padre Island	
Non-reoccurring Non-		These are one-time costs for program development, education campaign, and		
capital Cost (include in Total		non-engineering study costs.		
above):				
Estimated year to start:	2018	Entity with Oversight	South Padre Island	
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No 🗆	
	2020	Action Plan or other plan?		
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	HMGP; Local Funds	

Have the flood risk and flood reduction impacts been evaluated and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and f	ıate	<b>Э</b> С
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Voc	Nο	./
Yes	INIO	~



#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per	Yes □	No <b>✓</b>
TWDB guidelines?		

#### Related Goals Increase community access routes to critical facilities, Increase the # of entities that adopt higher than NFIPevacuation routes, during and after a flooding event minimum standards Reduce the # of newly constructed vulnerable critical Develop and maintain an operational stormwater asset facilities within the existing and future 100-YR floodplain management plan Increase the # of communities participating in the National Increase the # of flood gauges (rainfall/stream) in the Flood Insurance Program Decrease the average age of FEMA Flood Insurance Rate Increase the # of entities that have multi-year drainage Maps used to define SFHAs Increase the coverage of available flood hazard data by Increase the # of entities that integrate National Weather completing studies with identified construction projects to Service and USGS Texas Water Science Center (TXWSC) address flooding hazards flood warning system information into their local capabilities to disseminate warnings Increase participation in the regional flood planning process Increase use of nature-based flood risk reduction projects Provide regional detention that could be used for water Develop a regionally coordinated warning and emergency response program that can detect the flood threat and reuse applications or as part of a floodplain management program provide timely warning of impending flood danger Increase acreage of publicly protected open space in critical Increase the amount of publicly owned land in the region flood risk areas that is reused for a beneficial public use that can be utilized for future regional stormwater infrastructure Increase outreach and education activities, specifically Increase the proficiency of floodplain managers by targeting municipal floodplain managers, hosted by Region increasing the # of them that are certified as Certified 15 RFPG and available on the website Floodplain Managers (CFM) with the Texas Floodplain Management Association Increase the use reverse 911, TV, radio, social media, and Increase participation in the Community Rating System by billboards to communicate flood warnings, evacuation encouraging Region 15 floodplain management programs routes, and shelter locations to incorporate dedicated drainage fees to implement Reduce the # of structures that have been subject to future FMEs and FMPs; incorporate noncompliance repeated flooding events through property buyouts penalties; and who regulate development in the future

conditions floodplain

#### RFPG Recommended

Yes ✓ No □





#### South Padre Island Action #13

# FMS ID: 152000022 ✓ Regulatory and Guidance ☐ Flood Preparedness Programs Insert snip of Location Map here

#### **FMS Description**

Adopt higher floodplain standards in local floodplain ordinance

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☐ Education and Outreach Activities	✓ Regulatory and Guidance	☐ Flood Preparedness Programs
☐ Protected Areas	□ Development Standards	□ Other:

#### Strategy Area

City/ Cities South Padre Island County/ Counties Cameron HUC 8 12110208 **HUC 12** Study Area (sq. mi.)

#### **Emergency Need**

Yes ✓ No 🗆

#### Known Flood Risk

History of Flooding?	Yes ✓	No $\square$	Frequency of flooding:	
Population at Risk			# of structures inundated	
Roadways flooded	Yes □	No $\square$	Miles inundated?	
Critical Facilities Impacted	Yes 🗆	No $\square$	Agricultural Land impacted Yes	No $\square$
Notes:				

#### **Strategy Costs**

Total Cost:	\$5,000	Study Sponsor:	South Padre Island
Non-reoccurring Non-		These are one-time costs for program development, education campaign, and non-engineering study costs.	
capital Cost (include in Total		non-engineering study costs.	
above):			
Estimated year to start:	2021	Entity with Oversight	South Padre Island
Time to complete?	2023	Included in a Hazard Mitigation	Yes ✓ No □
		Action Plan or other plan?	
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	HMGP; Local Funds

Have the flood risk and flood reduction impacts been evaluated?

Yes	Nο	./
YPS	INIO	~



#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per	Yes □	No <b>✓</b>
TWDB guidelines?		

#### **Related Goals**

	Increase community access routes to critical facilities,	✓	Increase the # of entities that adopt higher than NFIP-
	evacuation routes, during and after a flooding event		minimum standards
	Reduce the # of newly constructed vulnerable critical		Develop and maintain an operational stormwater asset
	facilities within the existing and future 100-YR floodplain		management plan
	Increase the # of communities participating in the National		Increase the # of flood gauges (rainfall/stream) in the
	Flood Insurance Program		region
	Decrease the average age of FEMA Flood Insurance Rate		Increase the # of entities that have multi-year drainage
	Maps used to define SFHAs		CIP list
	Increase the coverage of available flood hazard data by		Increase the # of entities that integrate National Weather
	completing studies with identified construction projects to		Service and USGS Texas Water Science Center (TXWSC)
	address flooding hazards		flood warning system information into their local
			capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water		Develop a regionally coordinated warning and emergency
	reuse applications or as part of a floodplain management		response program that can detect the flood threat and
	program		provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical		Increase the amount of publicly owned land in the region
	flood risk areas that is reused for a beneficial public use		that can be utilized for future regional stormwater
			infrastructure
	Increase outreach and education activities, specifically		Increase the proficiency of floodplain managers by
	targeting municipal floodplain managers, hosted by Region		increasing the # of them that are certified as Certified
	15 RFPG and available on the website		Floodplain Managers (CFM) with the Texas Floodplain
_	1		Management Association
	Increase the use reverse 911, TV, radio, social media, and		Increase participation in the Community Rating System by
	billboards to communicate flood warnings, evacuation		encouraging Region 15 floodplain management programs
	routes, and shelter locations		to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to		future FMEs and FMPs; incorporate noncompliance
	repeated flooding events through property buyouts		penalties; and who regulate development in the future
			conditions floodplain

#### **RFPG Recommended**





Alamo #4-1.1 FMS ID: 152000024

Alamo Pd Will Create A		on List For I	Emergency Situations. Prioritize Flo	ood Prone Areas
Strategy Type  □ Education and Outre □ Protected Areas	each Activities		egulatory and Guidance evelopment Standards	<ul><li>☐ Flood Preparedness Programs</li><li>☐ Other:</li></ul>
Strategy Area City/ Cities County/ Counties HUC 8 HUC 12 Study Area (sq. mi.)	Alamo Hidalgo 12110208		Insert snip of Lo	ocation Map here
Emergency Nee Yes ✓ No □	ed			
Known Flood R  History of Flooding? Population at Risk Roadways flooded Critical Facilities Impac Notes:	Yes ✓ Yes □	No 🗆 No 🗆 No 🗆	Frequency of flooding: # of structures inundated Miles inundated? Agricultural Land impacted	Yes □ No □

Total Cost:	\$1,000	Study Sponsor:	Alamo	
Non-reoccurring Non-		These are one-time costs for program development, education campaign, and		
capital Cost (include in Total		non-engineering study costs.		
above):				
Estimated year to start:	2024	Entity with Oversight	Alamo	
Time to complete?	2026	Included in a Hazard Mitigation	Yes ✓ No 🗆	
		Action Plan or other plan?		
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	Identify Grants; Police Department	
-		_	Budget	





#### Have the flood risk and flood reduction impacts been evaluated?

Yes	□ No ✓		
	s the strategy missing sufficient data to assess whether the pro DB guidelines?	pose	d strategy has a negative effect, per Yes □ No ✓
Rel	ated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**





Alamo #5-1.1 FMS ID: 152000025

#### **FMS Description**

Implement Program To Provide Links To Weather Alerts And Departmental Phone Listings With Contact Personnel For Residents.

Strategy Type  □ Education and Outr □ Protected Areas	reach Activities	<ul><li>Regulatory and Guidance</li><li>Development Standards</li></ul>	<ul><li>✓ Flood Preparedness Programs</li><li>□ Other:</li></ul>	
Strategy Area City/ Cities	Alamo	Insert snip	of Location Map here	
County/ Counties	Hidalgo			
HUC 8	12110208			
HUC 12				
Study Area (sq. mi.)				
Emergency New Yes ✓ No □	ed			

#### **Known Flood Risk**

History of Flooding?	Yes  ✓ No □	Frequency of flooding:	
Population at Risk		# of structures inundated	
Roadways flooded	Yes □ No □	Miles inundated?	
Critical Facilities Impacted	Yes □ No □	Agricultural Land impacted	Yes □ No □
Notes:			

Total Cost:	\$2,000	Study Sponsor:	Alamo
Non-reoccurring Non-		These are one-time costs for program development, education campaign, and	
capital Cost (include in Total		non-engineering study costs.	
above):			
Estimated year to start:	2023	Entity with Oversight	Alamo
Time to complete?	2025	Included in a Hazard Mitigation	Yes ✓ No □
		Action Plan or other plan?	
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	Jurisdiction Budget

Have the flood risk and flood reduction impacts been evalu	uated	evaluat	een e	pacts beer	duction imr	od re	flo	and	risk	flood	the	Have
--	-------	---------	-------	------------	-------------	-------	-----	-----	------	-------	-----	------

Voc	Nο	./
Yes	INIO	~



#### Flood Management Strategies Fact Sheet

to incorporate dedicated drainage fees to implement

penalties; and who regulate development in the future

future FMEs and FMPs; incorporate noncompliance

conditions floodplain

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per Yes □ No ✓ TWDB guidelines?

Rel	ated Goals	
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical	Develop and maintain an operational stormwater asset
	facilities within the existing and future 100-YR floodplain	management plan
	Increase the # of communities participating in the National	Increase the # of flood gauges (rainfall/stream) in the
	Flood Insurance Program	region
	Decrease the average age of FEMA Flood Insurance Rate	Increase the # of entities that have multi-year drainage
	Maps used to define SFHAs	CIP list
	Increase the coverage of available flood hazard data by	Increase the # of entities that integrate National Weather
	completing studies with identified construction projects to	Service and USGS Texas Water Science Center (TXWSC)
	address flooding hazards	flood warning system information into their local
		capabilities to disseminate warnings
	Increase participation in the regional flood planning process	Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water	Develop a regionally coordinated warning and emergency
	reuse applications or as part of a floodplain management	response program that can detect the flood threat and
	program	provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical	Increase the amount of publicly owned land in the region
	flood risk areas that is reused for a beneficial public use	that can be utilized for future regional stormwater
		infrastructure
	Increase outreach and education activities, specifically	Increase the proficiency of floodplain managers by
	targeting municipal floodplain managers, hosted by Region	increasing the # of them that are certified as Certified
	15 RFPG and available on the website	Floodplain Managers (CFM) with the Texas Floodplain
,		Management Association
✓	Increase the use reverse 911, TV, radio, social media, and	Increase participation in the Community Rating System by
	billboards to communicate flood warnings, evacuation	encouraging Region 15 floodplain management programs

#### **RFPG Recommended**

routes, and shelter locations

Reduce the # of structures that have been subject to repeated flooding events through property buyouts





Bayview Action #7

FMS ID: 152000002

#### **FMS Description**

Approve and Adopt Fi	EMA Flood Insurance	e Rate Maps	
Strategy Type  □ Education and Outr □ Protected Areas	reach Activities	<ul><li>✓ Regulatory and Guidance</li><li>□ Development Standards</li></ul>	<ul><li>☐ Flood Preparedness Programs</li><li>☐ Other:</li></ul>
Strategy Area City/ Cities	Bayview	Insert snip (	of Location Map here
County/ Counties	Cameron		
HUC 8	12110208		
HUC 12			
Study Area (sq. mi.)			
Emorgonov No	od		
Emergency Ne Yes ✓ No □	eu		
163 - 110 -	l		

#### Known Flood Risk

History of Flooding?	Yes ✓ No 🗆	Frequency of flooding:	
Population at Risk		# of structures inundated	
Roadways flooded	Yes □ No □	Miles inundated?	
Critical Facilities Impacted	Yes □ No □	Agricultural Land impacted	Yes □ No □
Notes:			

Total Cost:	\$1,000	Study Sponsor:	Bayview		
Non-reoccurring Non-		These are one-time costs for program development, education campaign, and			
capital Cost (include in Total		non-engineering study costs.			
above):					
Estimated year to start:	2019	Entity with Oversight	Bayview		
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No □		
	2021	Action Plan or other plan?			
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	Local Funding		





#### Have the flood risk and flood reduction impacts been evaluated?

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per Yes □ No ✓ TWDB guidelines?    Increase community access routes to critical facilities, evacuation routes, during and after a flooding event   Reduce the # of envily constructed vulnerable critical facilities within the existing and future 100-YR floodplain   Increase the # of flood gauges (rainfall/stream) in the region   Increase the average age of FEMA Flood Insurance Rate   Maps used to define SFHAs   Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards   Increase the term of the provide regional detention that could be used for water reuse applications or as part of a floodplain management program   Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use   Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations   Reduce the # of structures that have been subject to repeated flooding events through property buyouts   Trease the graph of the flood flood galain management programs to incorporate dedicated drainage fees to implement future regional to in the future regional in the future penalties: and who regulate development in the future conditions floodplain management programs to incorporate dedicated drainage fees to implement future regional the food free penalties: and who regulate development in the future conditions floodplain.	Yes	□ No ✓		
<ul> <li>□ Increase community access routes to critical facilities, evacuation routes, during and after a flooding event</li> <li>□ Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain</li> <li>□ Increase the # of communities participating in the National Flood Insurance Program</li> <li>□ Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs</li> <li>□ Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards</li> <li>□ Increase participation in the regional flood planning process</li> <li>□ Provide regional detention that could be used for water reuse applications or as part of a floodplain management program</li> <li>□ Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use infrastructure</li> <li>□ Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations</li> <li>□ Reduce the # of sentities that adopt higher than NFIPminimum standards</li> <li>□ Develop and maintain an operational stormwater asset management plan</li> <li>□ Increase the # of entities that have multi-year drainage CIP list</li> <li>□ Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings</li> <li>□ Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger</li> <li>□ Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure</li> <li>□ Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shel</li></ul>			pose	ed strategy has a negative effect, per Yes □ No ✓
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<ul> <li>□ Increase participation in the regional flood planning process</li> <li>□ Provide regional detention that could be used for water reuse applications or as part of a floodplain management program</li> <li>□ Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use</li> <li>□ Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website</li> <li>□ Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations</li> <li>□ Reduce the # of structures that have been subject to repeated flooding events through property buyouts</li> <li>□ Increase use of nature-based flood risk reduction projects</li> <li>□ Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger</li> <li>□ Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure</li> <li>□ Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association</li> <li>□ Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation to incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future</li> </ul>	✓	completing studies with identified construction projects to		Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local
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targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website  Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations  Reduce the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association  Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future				that can be utilized for future regional stormwater
billboards to communicate flood warnings, evacuation routes, and shelter locations to incorporate dedicated drainage fees to implement  Reduce the # of structures that have been subject to repeated flooding events through property buyouts encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future		targeting municipal floodplain managers, hosted by Region		increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain
Reduce the # of structures that have been subject to repeated flooding events through property buyouts future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future		billboards to communicate flood warnings, evacuation		encouraging Region 15 floodplain management programs
		Reduce the # of structures that have been subject to		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

#### **RFPG Recommended**





FMS ID: 152000003

#### **Bayview Action #8**

#### **FMS Description**

Develop cooperative a jurisdictional boundar		te and county	to address flood risk to road	dways leading in and out of town – outsid
Strategy Type  □ Education and Out	reach Activities	_	ulatory and Guidance	☐ Flood Preparedness Programs
□ Protected Areas		□ Deve	elopment Standards	✓ Other:
Strategy Area City/ Cities	Bayview		Insert snip (	of Location Map here
County/ Counties	Cameron			
HUC 8	12110208			
HUC 12				
Study Area (sq. mi.)				
Emergency Ne Yes ✓ No □	ed			
Known Flood R History of Flooding? Population at Risk	Risk Yes ✓	No 🗆	Frequency of floodi # of structures inunda	•

Yes □ No □

Yes □ No □

#### **Strategy Costs**

Roadways flooded

Notes:

Critical Facilities Impacted

Total Cost:	\$1,000	Study Sponsor:	Bayview		
Non-reoccurring Non- capital Cost (include in Total above):		These are one-time costs for program development, education campaign, an non-engineering study costs.			
Estimated year to start:	2018	Entity with Oversight	Bayview		
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No □		
	2020	Action Plan or other plan?			
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	Local Funding		

Miles inundated?

Agricultural Land impacted Yes  $\square$  No  $\square$ 





#### Have the flood risk and flood reduction impacts been evaluated?

Yes	s □ No ✓		
	is the strategy missing sufficient data to assess whether the pro DB guidelines?	pos∈	ed strategy has a negative effect, per Yes □ No ✓
Rel	lated Goals		
<b>✓</b>	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event Reduce the # of newly constructed vulnerable critical		Increase the # of entities that adopt higher than NFIP- minimum standards Develop and maintain an operational stormwater asset
	facilities within the existing and future 100-YR floodplain Increase the # of communities participating in the National Flood Insurance Program		management plan Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**





# FMS Description Participate in the National Flood Insurance Program

S	tr	a	teg	V	Гу	pe
			J	•	•	

- ☐ Education and Outreach Activities
- ☐ Protected Areas

✓ Regulatory and Guidance	☐ Flood I
□ Development Standards	□ Other:

☐ Flood Preparedness	Programs
- 1100d 11cpdicdilc33	i i ogranis

#### Strategy Area

City/ Cities Bayview
County/ Counties Cameron

HUC 8 12110208

**HUC 12** 

Study Area (sq. mi.)

Insert sn	ip of Lo	ocation I	Map	here

FMS ID: 152000004

#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency of flooding:

Population at Risk # of structures inundated

Roadways flooded Yes □ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

#### Strategy Costs

Total Cost:	\$1,000	Study Sponsor:	Bayview	
Non-reoccurring Non-		These are one-time costs for program development, education campaign, an		
capital Cost (include in Total		non-engineering study costs.		
above):				
Estimated year to start:	2018	Entity with Oversight	Bayview	
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No □	
	2020	Action Plan or other plan?		
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	Local Funding	

Have the flood risk and flood reduction impacts been evaluated?

Yes	Nο	./
YPS	INIO	~



#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per Yes □ No ✓ TWDB guidelines?

Rel	ated Goals	
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain	Develop and maintain an operational stormwater asset management plan
✓	Increase the # of communities participating in the National Flood Insurance Program	Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs	Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards	Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process	Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program	Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use	Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation	Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs
	routes, and shelter locations Reduce the # of structures that have been subject to repeated flooding events through property buyouts	to incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**

Yes ✓ No□





#### **Bayview Action #19**

FMS ID: 152000001

#### **FMS Description**

Upgrade the Town's website to include local information on hazards, risks, mitigation, protective actions, and applicable ordinances

Strategy Type			
☐ Education and Outr☐ Protected Areas	reach Activities	<ul><li>Regulatory and Guidance</li><li>Development Standards</li></ul>	✓ Flood Preparedness Programs □ Other:
Strategy Area City/ Cities	Bayview	Insert snip	of Location Map here
County/ Counties	Cameron		·
HUC 8	12110208		
HUC 12			
Study Area (sq. mi.)			
Emergency Never Yes ✓ No □	ed		

#### **Known Flood Risk**

History of Flooding?	Yes  ✓ No 🗆	Frequency of flooding:	
Population at Risk		# of structures inundated	
Roadways flooded	Yes □ No □	Miles inundated?	
Critical Facilities Impacted	Yes □ No □	Agricultural Land impacted	Yes □ No □
Notes:			

Total Cost:	\$10,000	Study Sponsor:	Bayview
Non-reoccurring Non- capital Cost (include in Total		These are one-time costs for program development, education campaign, a non-engineering study costs.	
above):			
Estimated year to start:	2018	Entity with Oversight	Bayview
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No 🗆
	2020	Action Plan or other plan?	
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	HMGP: Local Funding



Yes ✓ No 🗆



#### Flood Management Strategies Fact Sheet

Have the flood risk and flood reduction	on impacts been evaluated?
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Yes □ No ✓	
Was the strategy missing sufficient data to assess whether the proTWDB guidelines?	oposed strategy has a negative effect, per Yes □ No ✓
Related Goals	
<ul> <li>Increase community access routes to critical facilities,</li> <li>evacuation routes, during and after a flooding event</li> <li>Reduce the # of newly constructed vulnerable critical</li> </ul>	<ul> <li>Increase the # of entities that adopt higher than NFIP-minimum standards</li> <li>Develop and maintain an operational stormwater asset</li> </ul>
facilities within the existing and future 100-YR floodplain Increase the # of communities participating in the National	management plan  Increase the # of flood gauges (rainfall/stream) in the
Flood Insurance Program  Decrease the average age of FEMA Flood Insurance Rate	region  Increase the # of entities that have multi-year drainage CIP list
Maps used to define SFHAs  ☐ Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards	✓ Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local
<ul> <li>Increase participation in the regional flood planning process</li> <li>Provide regional detention that could be used for water reuse applications or as part of a floodplain management program</li> </ul>	<ul> <li>capabilities to disseminate warnings</li> <li>□ Increase use of nature-based flood risk reduction projects</li> <li>✓ Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger</li> </ul>
<ul> <li>Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use</li> </ul>	<ul> <li>Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure</li> </ul>
<ul> <li>Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website</li> </ul>	<ul> <li>Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association</li> </ul>
✓ Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations	<ul> <li>Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement</li> </ul>
Reduce the # of structures that have been subject to repeated flooding events through property buyouts	future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
RFPG Recommended	





Brownsville Public Utilities Board Action #8 FMS ID: 152000006

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FMS I	1 1/	$\sim$	cri	nt		7
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1 1 4 1 0 1	_	00	<b>0</b> 1 1	$\sim$ $^{\circ}$		

Develop program to annually remove buildup of silt in area Resacas that become cutoff from the river and contribute to flooding during severe flood or hurricane event

during severe nood of	numeane event		
Strategy Type  □ Education and Outr □ Protected Areas	reach Activities	<ul><li>✓ Regulatory and Guidance</li><li>□ Development Standards</li></ul>	<ul><li>☐ Flood Preparedness Programs</li><li>☐ Other:</li></ul>
Strategy Area City/ Cities	Brownsville	Insert snip o	of Location Map here
County/ Counties	Cameron		
HUC 8	12110208		
HUC 12			
Study Area (sq. mi.)			
Emergency Ne Yes ✓ No □	ed		
Known Flood R	Risk		

History of Flooding?	Yes ✓ No 🗆	Frequency of flooding:	
Population at Risk		# of structures inundated	
Roadways flooded	Yes □ No □	Miles inundated?	
Critical Facilities Impacted	Yes □ No □	Agricultural Land impacted	Yes □ No □
Notes:			

Total Cost:	\$20,000	Study Sponsor:	Brownsville		
Non-reoccurring Non-		These are one-time costs for program development, education campaign, and			
capital Cost (include in Total		non-engineering study costs.			
above):					
Estimated year to start:	2016	Entity with Oversight	Brownsville		
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No □		
	2018	Action Plan or other plan?			
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	Grants		



Yes ✓ No 🗆



#### Flood Management Strategies Fact Sheet

#### Have the flood risk and flood reduction impacts been evaluated?

Yes	□ No ✓		
	s the strategy missing sufficient data to assess whether the pro DB guidelines?	opose	ed strategy has a negative effect, per Yes □ No ✓
Rel	ated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
RFI	PG Recommended		

#### Page 2 of 2





### City Of Brownsville Action #2

FMS ID: 152000007

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HV	15 L	)escr	IDt	Ion

Rating System progra	am to reduce risk and flood insurance pre	emiums to residents
reach Activities	<ul><li>✓ Regulatory and Guidance</li><li>□ Development Standards</li></ul>	<ul><li>☐ Flood Preparedness Programs</li><li>☐ Other:</li></ul>
Brownsville	Insert snip	of Location Map here
Cameron		
12110208		
ed		
	Brownsville Cameron 12110208	Brownsville Insert snip Cameron 12110208

#### **Known Flood Risk**

History of Flooding?	Yes ✓	No □	Frequency of flooding:	
Population at Risk			# of structures inundated	
Roadways flooded	Yes □	No $\square$	Miles inundated?	
Critical Facilities Impacted	Yes □	No $\square$	Agricultural Land impacted	Yes □ No □
Notes:				

Total Cost:	\$100,000	Study Sponsor:	Brownsville	
Non-reoccurring Non-		These are one-time costs for program development, education campaign, and		
capital Cost (include in Total		non-engineering study costs.		
above):				
Estimated year to start:	2015	Entity with Oversight	Brownsville	
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No □	
	2017	Action Plan or other plan?		
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	Local Revenue, Storm Water Fee	

Have the flood risk and flood reduction impacts been evaluated and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and f	ıate	<b>Э</b> С
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Yes	Nο	./
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#### Flood Management Strategies Fact Sheet

	as the strategy missing sufficient data to assess whether the pr /DB guidelines?	opose	ed strategy has a negative effect, per	Yes □ No ✓
Re	lated Goals			
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt hig minimum standards	her than NFIP-
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational st management plan	ormwater asset
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/gregion	stream) in the
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi- CIP list	ti-year drainage
	Increase the coverage of available flood hazard data by		Increase the # of entities that integrate	National Weather

Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program

completing studies with identified construction projects to

- Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use
- Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website
- Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations
- Reduce the # of structures that have been subject to repeated flooding events through property buyouts

#### RFPG Recommended

address flooding hazards

Yes ✓ No □

Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association Increase participation in the Community Rating System by

encouraging Region 15 floodplain management programs

to incorporate dedicated drainage fees to implement

penalties; and who regulate development in the future

future FMEs and FMPs; incorporate noncompliance

conditions floodplain





Edcouch #3-1.1 FMS ID: 152000026

FMS Description Complete Activities Req		Participating Community	
Strategy Type  □ Education and Outre □ Protected Areas	ach Activities	<ul><li>✓ Regulatory and Guidance</li><li>□ Development Standards</li></ul>	<ul><li>☐ Flood Preparedness Programs</li><li>☐ Other:</li></ul>
Strategy Area City/ Cities	Edcouch	Insert snip o	f Location Map here
County/ Counties	Hidalgo		
HUC 8	12110208		
HUC 12			
Study Area (sq. mi.)			
Emergency Nee Yes ✓ No □	d		

#### **Known Flood Risk**

History of Flooding?	Yes ✓	No □	Frequency of flooding:		
Population at Risk			# of structures inundated		
Roadways flooded	Yes □	No $\square$	Miles inundated?		
Critical Facilities Impacted	Yes 🗆	No $\square$	Agricultural Land impacted	Yes □	No □
Notes:					

Total Cost:	\$5,000	Study Sponsor:	Edcouch	
Non-reoccurring Non-		These are one-time costs for program development, education campaign, an		
capital Cost (include in Total		non-engineering study costs.		
above):				
Estimated year to start:	2021	Entity with Oversight	Edcouch	
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No □	
	2022	Action Plan or other plan?		
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	FEMA	

Have the flood risk and flood reduction impacts been evaluated and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and f	ıate	<b>Э</b> С
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Voc	Nο	./
Yes	INIO	~



#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per Yes □ No ✓ TWDB guidelines? Related Goals Increase community access routes to critical facilities, Increase the # of entities that adopt higher than NFIPevacuation routes, during and after a flooding event minimum standards Reduce the # of newly constructed vulnerable critical Develop and maintain an operational stormwater asset facilities within the existing and future 100-YR floodplain management plan Increase the # of communities participating in the National Increase the # of flood gauges (rainfall/stream) in the Flood Insurance Program Decrease the average age of FEMA Flood Insurance Rate Increase the # of entities that have multi-year drainage Maps used to define SFHAs Increase the coverage of available flood hazard data by Increase the # of entities that integrate National Weather completing studies with identified construction projects to Service and USGS Texas Water Science Center (TXWSC) address flooding hazards flood warning system information into their local capabilities to disseminate warnings Increase participation in the regional flood planning process Increase use of nature-based flood risk reduction projects Provide regional detention that could be used for water Develop a regionally coordinated warning and emergency response program that can detect the flood threat and reuse applications or as part of a floodplain management program provide timely warning of impending flood danger Increase acreage of publicly protected open space in critical Increase the amount of publicly owned land in the region flood risk areas that is reused for a beneficial public use that can be utilized for future regional stormwater infrastructure Increase outreach and education activities, specifically Increase the proficiency of floodplain managers by targeting municipal floodplain managers, hosted by Region increasing the # of them that are certified as Certified 15 RFPG and available on the website Floodplain Managers (CFM) with the Texas Floodplain

Management Association

conditions floodplain

Increase participation in the Community Rating System by

encouraging Region 15 floodplain management programs

to incorporate dedicated drainage fees to implement

penalties; and who regulate development in the future

future FMEs and FMPs; incorporate noncompliance

#### RFPG Recommended

routes, and shelter locations

Increase the use reverse 911, TV, radio, social media, and

billboards to communicate flood warnings, evacuation

Reduce the # of structures that have been subject to

repeated flooding events through property buyouts

Yes ✓ No □





Edcouch #5-1.1 FMS ID: 152000027

#### **FMS Description**

Implement Program To Provide Links To Weather Alerts And Departmental Phone Listings With Contact Personnel For Residents.

Strategy Type  □ Education and Outr □ Protected Areas	reach Activities	<ul><li>□ Regulatory and Guidance</li><li>□ Development Standards</li></ul>	<ul><li>✓ Flood Preparedness Programs</li><li>□ Other:</li></ul>
Strategy Area City/ Cities	Edcouch	Insert snip	of Location Map here
County/ Counties	Hidalgo		
HUC 8	12110208		
HUC 12			
Study Area (sq. mi.)			
Emergency Never Yes ✓ No □	ed		

#### **Known Flood Risk**

History of Flooding?	Yes ✓	No $\square$	Frequency of flooding:		
Population at Risk			# of structures inundated		
Roadways flooded	Yes 🗆	No □	Miles inundated?		
Critical Facilities Impacted	Yes 🗆	No $\square$	Agricultural Land impacted	Yes □	No $\square$
Notes:					

#### **Strategy Costs**

Total Cost:	\$2,000	Study Sponsor:	Edcouch	
Non-reoccurring Non-		These are one-time costs for program development, education campaign, ar		
capital Cost (include in Total		non-engineering study costs.		
above):				
Estimated year to start:	2021	Entity with Oversight	Edcouch	
Time to complete?	2021	Included in a Hazard Mitigation	Yes ✓ No 🗆	
		Action Plan or other plan?		
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	Jurisdiction Budget	

Have the flood risk and flood reduction impacts been evaluated?

Yes	./	No□	1
YAC	~	131()	



#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per	Yes $\square$	No <b>√</b>
TWDB guidelines?		

#### **Related Goals**

	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain	Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program	Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs	Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards	Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process	Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program	Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use	Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
✓	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations	Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts	future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**





Edcouch #7-1.1 FMS ID: 152000028

#### **FMS Description**

Develop Procedures For Mass Notifications To Citizens And Merchants During Natural Hazard Incident. Solicit Bids For System. Purchase Emergency Notification System And Install Distribute Information On New System And Conduct Training

C J			_	٠
Strategy Type  □ Education and Outreach Activities □ Protected Areas			egulatory and Guidance evelopment Standards	✓ Flood Preparedness Programs □ Other:
Strategy Area City/ Cities	Edcouch		Insert snip of Lo	ocation Map here
County/ Counties	Hidalgo			
HUC 8	12110208			
HUC 12				
Study Area (sq. mi.)				
Emergency Ne Yes ✓ No □	ed			
Known Flood R	Risk			
History of Flooding? Population at Risk	Yes ✓	No □	Frequency of flooding: # of structures inundated	
Roadways flooded	Yes □	No $\square$	Miles inundated?	
Critical Facilities Impa	cted Yes 🗆	No □	Agricultural Land impacted	Yes □ No □

Total Cost:	\$25,000	Study Sponsor:	Edcouch
Non-reoccurring Non- capital Cost (include in Total above):		These are one-time costs for program development, education campaign, non-engineering study costs.	
Estimated year to start:	2021	Entity with Oversight	Edcouch
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No 🗆
	2023	Action Plan or other plan?	
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	Jurisdiction Budget



Yes ✓ No 🗆



#### Flood Management Strategies Fact Sheet

#### Have the flood risk and flood reduction impacts been evaluated?

Yes	□ No ✓		
	s the strategy missing sufficient data to assess whether the pro DB guidelines?	pos∈	ed strategy has a negative effect, per Yes □ No ✓
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event Reduce the # of newly constructed vulnerable critical		Increase the # of entities that adopt higher than NFIP- minimum standards Develop and maintain an operational stormwater asset
	facilities within the existing and future 100-YR floodplain Increase the # of communities participating in the National		management plan Increase the # of flood gauges (rainfall/stream) in the
	Flood Insurance Program  Decrease the average age of FEMA Flood Insurance Rate  Maps used to define SFHAs		region Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program	□ ✓	Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
✓	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
RFF	PG Recommended		





Edinburg #1-1.2 FMS ID: 152000029

#### **FMS Description**

Implement Reverse 9-1-1 System

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<ul> <li>Education and Outreach Activities</li> </ul>	<ul> <li>Regulatory and Guidance</li> </ul>	✓ Flood Preparedness Programs
□ Protected Areas	□ Development Standards	□ Other:

Insert snip of Location Map here

#### Strategy Area

City/ Cities Edinburg

County/ Counties Hidalgo

HUC 8 12110208

HUC 12

Study Area (sq. mi.)

#### **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding? Yes ✓ No □ Frequency of flooding:

Population at Risk # of structures inundated

Roadways flooded Yes □ No □ Miles inundated?

Critical Facilities Impacted Yes □ No □ Agricultural Land impacted Yes □ No □

Notes:

#### Strategy Costs

Total Cost:	\$250,000	Study Sponsor:	Edinburg	
Non-reoccurring Non-		These are one-time costs for program development, education campaign, and		
capital Cost (include in Total		non-engineering study costs.		
above):				
Estimated year to start:	2021	Entity with Oversight	Edinburg	
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No 🗆	
	2022	Action Plan or other plan?		
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	Federal, State, & Local	

Have the flood risk and flood reduction impacts been evaluated?

Yes	Nο	./
YPS	INIO	~



#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per Yes □ No ✓ TWDB guidelines?

#### **Related Goals**

	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical	Develop and maintain an operational stormwater asset
	facilities within the existing and future 100-YR floodplain Increase the # of communities participating in the National	management plan Increase the # of flood gauges (rainfall/stream) in the
	Flood Insurance Program	region
	Decrease the average age of FEMA Flood Insurance Rate	Increase the # of entities that have multi-year drainage
	Maps used to define SFHAs	CIP list
	Increase the coverage of available flood hazard data by	Increase the # of entities that integrate National Weather
	completing studies with identified construction projects to	Service and USGS Texas Water Science Center (TXWSC)
	address flooding hazards	flood warning system information into their local
		capabilities to disseminate warnings
	Increase participation in the regional flood planning process	Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water	Develop a regionally coordinated warning and emergency
	reuse applications or as part of a floodplain management	response program that can detect the flood threat and
	program	provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical	Increase the amount of publicly owned land in the region
	flood risk areas that is reused for a beneficial public use	that can be utilized for future regional stormwater
		infrastructure
	Increase outreach and education activities, specifically	Increase the proficiency of floodplain managers by
	targeting municipal floodplain managers, hosted by Region	increasing the # of them that are certified as Certified
	15 RFPG and available on the website	Floodplain Managers (CFM) with the Texas Floodplain
		Management Association
✓	Increase the use reverse 911, TV, radio, social media, and	Increase participation in the Community Rating System by
	billboards to communicate flood warnings, evacuation	encouraging Region 15 floodplain management programs
	routes, and shelter locations	to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to	future FMEs and FMPs; incorporate noncompliance
	repeated flooding events through property buyouts	penalties: and who regulate development in the future

conditions floodplain

#### **RFPG Recommended**





Edinburg #7-1.1

FMS ID: 152000030

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Implement Program To Provide Links To Weather Alerts And Departmental Phone Listings With Contact Personnel For Residents.

Strategy Type  □ Education and Outr □ Protected Areas	reach Activities	<ul><li>□ Regulatory and Guidance</li><li>□ Development Standards</li></ul>	✓ Flood Preparedness Programs □ Other:
Strategy Area City/ Cities	Edinburg	Insert snip	of Location Map here
County/ Counties	Hidalgo		
HUC 8	12110208		
HUC 12			
Study Area (sq. mi.)			
Emergency Never Yes ✓ No □	ed		

#### **Known Flood Risk**

History of Flooding?	Yes ✓	No □	Frequency of flooding:		
Population at Risk			# of structures inundated		
Roadways flooded	Yes 🗆	No $\square$	Miles inundated?		
Critical Facilities Impacted	Yes 🗆	No $\square$	Agricultural Land impacted	Yes □	No $\square$
Notes:					

Total Cost:	\$1,000	Study Sponsor:	Edinburg	
Non-reoccurring Non-		These are one-time costs for program development, education campaign, and		
capital Cost (include in Total		non-engineering study costs.		
above):				
Estimated year to start:		Entity with Oversight	Edinburg	
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No □	
	Completed	Action Plan or other plan?		
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	Jurisdiction Budget	

Have the flood risk and flood reduction impacts been evalu	uated	evaluat	een e	pacts beer	duction imr	od re	flo	and	risk	flood	the	Have
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Voc	Nο	./
Yes	INIO	~



#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per Yes □ No ✓ TWDB guidelines?

#### **Related Goals**

	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical	Develop and maintain an operational stormwater asset
	facilities within the existing and future 100-YR floodplain Increase the # of communities participating in the National	management plan Increase the # of flood gauges (rainfall/stream) in the
	Flood Insurance Program	region
	Decrease the average age of FEMA Flood Insurance Rate	Increase the # of entities that have multi-year drainage
	Maps used to define SFHAs	CIP list
	Increase the coverage of available flood hazard data by	Increase the # of entities that integrate National Weather
	completing studies with identified construction projects to	Service and USGS Texas Water Science Center (TXWSC)
	address flooding hazards	flood warning system information into their local
		capabilities to disseminate warnings
	Increase participation in the regional flood planning process	Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water	Develop a regionally coordinated warning and emergency
	reuse applications or as part of a floodplain management	response program that can detect the flood threat and
	program	provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical	Increase the amount of publicly owned land in the region
	flood risk areas that is reused for a beneficial public use	that can be utilized for future regional stormwater
		infrastructure
	Increase outreach and education activities, specifically	Increase the proficiency of floodplain managers by
	targeting municipal floodplain managers, hosted by Region	increasing the # of them that are certified as Certified
	15 RFPG and available on the website	Floodplain Managers (CFM) with the Texas Floodplain
		Management Association
✓	Increase the use reverse 911, TV, radio, social media, and	Increase participation in the Community Rating System by
	billboards to communicate flood warnings, evacuation	encouraging Region 15 floodplain management programs
	routes, and shelter locations	to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to	future FMEs and FMPs; incorporate noncompliance
	repeated flooding events through property buyouts	penalties: and who regulate development in the future

conditions floodplain

#### **RFPG Recommended**





FMS ID: 152000031

Edinburg #9-1.2

FMS Description

Develop Procedures For Mass Notifications To Citizens And Merchants During Natural Hazard Incident. Solicit Bids For System.

•			S And Merchants During Natural F Distribute Information On New Sys	tem And Conduct Training
Strategy Type  □ Education and Outr □ Protected Areas	each Activities	•	Julatory and Guidance Velopment Standards	✓ Flood Preparedness Programs  ☐ Other:
Strategy Area City/ Cities County/ Counties HUC 8 HUC 12	Edinburg Hidalgo 12110208		Insert snip of Lo	ocation Map here
Study Area (sq. mi.)				
Emergency Nee Yes ✓ No □	ed			
Known Flood R History of Flooding? Population at Risk Roadways flooded Critical Facilities Impac Notes:	Yes ✓ Yes □	No □ No □ No □	Frequency of flooding: # of structures inundated Miles inundated? Agricultural Land impacted	Yes □ No □

Total Cost: \$31,000		Study Sponsor: Edinburg			
Non-reoccurring Non-		These are one-time costs for program development, education campaign, and			
capital Cost (include in Total		non-engineering study costs.			
above):					
Estimated year to start:		Entity with Oversight	Edinburg		
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No 🗆		
	Completed	Action Plan or other plan?			
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	Jurisdiction Budget		





Have the flood risk and flood redu	action impact	s been eva	luated?
------------------------------------	---------------	------------	---------

Yes	□ No ✓		
	s the strategy missing sufficient data to assess whether the pro DB guidelines?	pose	d strategy has a negative effect, per Yes □ No ✓
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
✓	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
<b>&gt;</b> E			

### RFPG Recommended





Hidalgo #5-1.1 FMS ID: 152000032

FMS Description

Implement Program To Provide Links To Weather Alerts And Departmental Phone Listings With Contact Personnel For Residents.

implement Program 1	o Provide Links 10	weather Alerts and Departmental Phone L	Listings with Contact Personnel For Resid
Strategy Type  ✓ Education and Outreach Activities  □ Protected Areas		<ul><li>□ Regulatory and Guidance</li><li>□ Development Standards</li></ul>	☐ Flood Preparedness Programs☐ Other:
Strategy Area City/ Cities	Hidalgo	Insert snip o	of Location Map here
County/ Counties	Hidalgo	·	·
HUC 8	12110207		
	12110213		
HUC 12			
Study Area (sq. mi.)			
Emergency Ne Yes ✓ No □	ed		

#### Known Flood Risk

History of Flooding?	Yes ✓ No 🗆	Frequency of flooding:	
Population at Risk		# of structures inundated	
Roadways flooded	Yes □ No □	Miles inundated?	
Critical Facilities Impacted	Yes □ No □	Agricultural Land impacted	Yes □ No □
Notes:			

Total Cost:	\$5,000	Study Sponsor: Hidalgo		
Non-reoccurring Non- capital Cost (include in Total above):		These are one-time costs for program development, education campaign, and non-engineering study costs.		
Estimated year to start:	2022	Entity with Oversight	Hidalgo	
Time to complete?	2023	Included in a Hazard Mitigation Action Plan or other plan?	Yes ✓ No 🗆	
Funding Dedicated?	Yes □ No ✓	(Potential) Source of Funding	N/A	





#### Have the flood risk and flood reduction impacts been evaluated?

Yes	□ No ✓		
	s the strategy missing sufficient data to assess whether the pro DB guidelines?	pose	d strategy has a negative effect, per Yes □ No ✓
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
<b>√</b>	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations Reduce the # of structures that have been subject to		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance
	repeated flooding events through property buyouts		penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**





FMS ID: 152000036

# Hidalgo County #2-2.1

# **FMS** Description

Incorporate Assessme Design For New Buildi		0		Severe Storms, Into Site Selection And
Strategy Type				
<ul><li>☐ Education and Outr</li><li>☐ Protected Areas</li></ul>	reach Activities		egulatory and Guidance evelopment Standards	<ul><li>☐ Flood Preparedness Programs</li><li>☐ Other:</li></ul>
Strategy Area City/ Cities			Insert snip of L	ocation Map here
County/ Counties	Hidalgo		misort simp or Ec	Soution Map Horo
HUC 8	12110207			
	12110213			
HUC 12				
Study Area (sq. mi.)				
Emergency Ne	ed			
Yes ✓ No 🗆				
Known Flood R	Risk			
History of Flooding? Population at Risk	Yes ✓	No □	Frequency of flooding: # of structures inundated	
Roadways flooded Critical Facilities Impa Notes:	Yes 🗆 reted Yes 🗆	No □ No □	Miles inundated? Agricultural Land impacted	Yes □ No □

Total Cost:	\$25,000	Study Sponsor:	Hidalgo County		
Non-reoccurring Non- capital Cost (include in Total above):		These are one-time costs for program development, education campaign, and non-engineering study costs.			
Estimated year to start:	2023	Entity with Oversight	Hidalgo County		
Time to complete?	2025	Included in a Hazard Mitigation Action Plan or other plan?	Yes ✓ No 🗆		
Funding Dedicated?	Yes □ No ✓	(Potential) Source of Funding	Annual Department Budget		





Have the flood risk and flood reduction	on impacts been evaluated?
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Yes	□ No ✓		
	s the strategy missing sufficient data to assess whether the pro DB guidelines?	pose	ed strategy has a negative effect, per Yes □ No ✓
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program  Postroase the average are of FEMA Flood Insurance Pate.		Increase the # of flood gauges (rainfall/stream) in the region
□	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
•	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
RFF	PG Recommended		





## Hidalgo County #3-1.2

FMS ID: 152000037

#### **FMS Description**

Enhance The Appropr		ovide Convenie	ent Access To Most Curren	t Hazard Maps.
Strategy Type  □ Education and Outr □ Protected Areas	reach Activities		atory and Guidance opment Standards	✓ Flood Preparedness Programs  □ Other:
Strategy Area City/ Cities			Insert snip	of Location Map here
County/ Counties	Hidalgo			
HUC 8	12110207			
	12110217			
HUC 12				
Study Area (sq. mi.)				
Emergency Ne	ed			
Yes ✓ No 🗆				
Known Flood R History of Flooding? Population at Risk	Pisk Yes ✓	No 🗆	Frequency of flood # of structures inunda	•

Yes  $\square$  No  $\square$ 

Yes □ No □

### **Strategy Costs**

Roadways flooded

Critical Facilities Impacted

Total Cost:	\$50,000	Study Sponsor:	Hidalgo County			
Non-reoccurring Non-		These are one-time costs for program development, education campaign, and				
capital Cost (include in Total		non-engineering study costs.				
above):						
Estimated year to start:	2023	Entity with Oversight	Hidalgo County			
Time to complete?	2025	Included in a Hazard Mitigation	Yes ✓ No 🗆			
		Action Plan or other plan?				
Funding Dedicated?	Yes □ No ✓	(Potential) Source of Funding	Annual Department Budget and External			
-			Funding			

 $\begin{tabular}{ll} Miles inundated? \\ Agricultural Land impacted & Yes $$\square$ No $$\square$ \\ \end{tabular}$ 





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Service and USGS Texas Water Science Center (TXWSC) address flooding hazards  □ Increase participation in the regional flood planning process □ Provide regional detention that could be used for water reuse applications or as part of a floodplain management program □ Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use □ Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website □ Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings □ Increase use of nature-based flood risk reduction project □ Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger □ Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure □ Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Management Association □ Increase the use reverse 911, TV, radio, social media, and □ Increase participation in the Community Rating System by	Yes	□ No ✓		
<ul> <li>□ Increase community access routes to critical facilities, evacuation routes, during and after a flooding event</li> <li>□ Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain</li> <li>□ Increase the # of communities participating in the National Flood Insurance Program</li> <li>□ Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAS</li> <li>□ Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards</li> <li>□ Increase participation in the regional flood planning process</li> <li>□ Provide regional detention that could be used for water reuse applications or as part of a floodplain management program</li> <li>□ Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use</li> <li>✓ Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website</li> <li>✓ Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations</li> <li>□ Reduce the # of sentities that adopt higher than NFIP-minimum standards</li> <li>□ Develop and maintain an operational stormwater asset management plan</li> <li>□ Increase the # of entities that have multi-year drainage (CIP list</li> <li>□ Increase the # of entities that have multi-year drainage</li> <li>□ CIP list</li> <li>□ Increase the # of entities that have multi-year drainage</li> <li>□ CIP list</li> <li>□ Increase the # of entities that have multi-year drainage</li> <li>□ Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger</li> <li>□ Increase the amount of publicly owned land in the region incre</li></ul>			pose	ed strategy has a negative effect, per Yes □ No ✓
evacuation routes, during and after a flooding event  Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain Increase the # of communities participating in the National Flood Insurance Program Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website  Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations Reduce the # of flood gauges (rainfall/stream) in the region Increase the # of entities that have multi-year drainage CIP list Uncrease the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure Increase the proficiency of floodplain managers by increase the proficiency of floodplain managers by increase the proficiency of floodplain managers by increase the proficiency of floodplain managers to that can be utilized for future regional stormwater infrastructure Increase the proficiency of floodplain managers to the mother than the region Increase the proficiency of floodplain managers to the moth	Rel	ated Goals		
facilities within the existing and future 100-YR floodplain Increase the # of communities participating in the National Flood Insurance Program Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations Reduce the # of entities that have multi-year drainage CIP list Increase the # of entities that have multi-year drainage CIP list Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings Increase use of nature-based flood risk reduction project Develop a regionally coordinated warning and emergence response program that can detect the flood threat and provide timely warning of impending flood adanger Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association Increase and the proficiency of floodplain management program Increase the use reverse 911, TV, radio, socia		evacuation routes, during and after a flooding event		
□ Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAS □ Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards □ Increase participation in the regional flood planning process □ Provide regional detention that could be used for water reuse applications or as part of a floodplain management program □ Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use  ✓ Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website  ✓ Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations  Reduce the # of entities that have multi-year drainage CIP list Increase the # of entities that have multi-year drainage CIP list Increase the # of entities that have multi-year drainage CIP list Increase the # of entities that have multi-year drainage CIP list Increase the # of entities that have multi-year drainage CIP list Increase the # of entities that have multi-year drainage CIP list Increase the # of entities that have multi-year drainage CIP list Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings Increase use of nature-based flood risk reduction project Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association Increase participation in t				
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<ul> <li>□ Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use</li> <li>✓ Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website</li> <li>✓ Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations</li> <li>□ Reduce the # of structures that have been subject to repeated flooding events through property buyouts</li> <li>□ Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure</li> <li>□ Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association</li> <li>□ Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure</li> <li>□ Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association</li> <li>□ Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure</li> <li>□ Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association</li> <li>□ Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure</li> <li>□ Increase the proficiency of floodplain managers (CFM) with the Texas Floodplain Managers (CFM) w</li></ul>		Provide regional detention that could be used for water reuse applications or as part of a floodplain management		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and
<ul> <li>✓ Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website</li> <li>✓ Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations</li> <li>□ Reduce the # of structures that have been subject to repeated flooding events through property buyouts</li> <li>□ Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association</li> <li>□ Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association</li> <li>□ Increase participation in the Community Rating System be encouraging Region 15 floodplain managers by increasing the # of them that are certified as Certified Floodplain Management Association</li> <li>□ Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association</li> <li>□ Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Management Association</li> <li>□ Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association</li> <li>□ Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Management Association</li> <li>□ Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Management Association</li> <li>□ Increase the proficiency of them that are certified as Certified Floodplain Management Association</li> <li>□ Inc</li></ul>		Increase acreage of publicly protected open space in critical		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater
billboards to communicate flood warnings, evacuation routes, and shelter locations to incorporate dedicated drainage fees to implement  Reduce the # of structures that have been subject to repeated flooding events through property buyouts encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future	✓	targeting municipal floodplain managers, hosted by Region		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain
Reduce the # of structures that have been subject to repeated flooding events through property buyouts future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future	✓	billboards to communicate flood warnings, evacuation		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
		Reduce the # of structures that have been subject to		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

#### **RFPG Recommended**





# Hidalgo County #11-1.2

FMS ID: 152000033

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evees.

<ul><li>Regulatory and Guidance</li><li>Development Standards</li></ul>	□ Flood Preparedness Programs ✓ Other:
Insert snip	of Location Map here
	·

#### **Known Flood Risk**

History of Flooding?	Yes ✓	No □	Frequency of flooding:		
Population at Risk			# of structures inundated		
Roadways flooded	Yes □	No □	Miles inundated?		
Critical Facilities Impacted	Yes □	No □	Agricultural Land impacted	Yes □	No □
Notes:					

Total Cost:	\$10,000	Study Sponsor:	Hidalgo County		
Non-reoccurring Non- capital Cost (include in Total above):		These are one-time costs for program development, education campaign, and non-engineering study costs.			
Estimated year to start:	2023	Entity with Oversight	Hidalgo County		
Time to complete?	2025	Included in a Hazard Mitigation Action Plan or other plan?	Yes ✓ No 🗆		
Funding Dedicated?	Yes □ No ✓	(Potential) Source of Funding	Jurisdiction Budget, Grants		



Yes ✓

No □



### Flood Management Strategies Fact Sheet

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Yes	□ No ✓	J 0. 0	
	s the strategy missing sufficient data to assess whether the pro DB guidelines?	pose	ed strategy has a negative effect, per Yes □ No ✓
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain	✓	Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
RFF	PG Recommended		

#### Page 2 of 2





## Hidalgo County #12-1.1

FMS ID: 152000034

### **FMS Description**

Implement Program To Provide Links To Weather Alerts And Departmental Phone Listings With Contact Personnel For Residents.

Strategy Type  □ Education and Outreach Active □ Protected Areas	ities □ Regulatory and Guidance □ Development Standards	<ul><li>✓ Flood Preparedness Programs</li><li>□ Other:</li></ul>
Strategy Area City/ Cities	Insert snip	of Location Map here
County/ Counties Hidalgo		
HUC 8 1211020	7	
1211023	3	
HUC 12		
Study Area (sq. mi.)		
Emergency Need		
Yes ✓ No 🗆		

#### **Known Flood Risk**

History of Flooding?	Yes ✓	No □	Frequency of flooding:		
Population at Risk			# of structures inundated		
Roadways flooded	Yes □	No □	Miles inundated?		
Critical Facilities Impacted	Yes □	No □	Agricultural Land impacted	Yes □	No □
Notes:					

Total Cost:	\$100,000	Study Sponsor:	Hidalgo County
Non-reoccurring Non- capital Cost (include in Total above):		These are one-time costs for progra non-engineering study costs.	am development, education campaign, and
Estimated year to start:	2023	Entity with Oversight	Hidalgo County
Time to complete?	2025	Included in a Hazard Mitigation Action Plan or other plan?	Yes ✓ No 🗆
Funding Dedicated?	Yes □ No ✓	(Potential) Source of Funding	FEMA, Department Budget





	Have the flood r	isk and flood	reduction im	pacts been	evaluated?
--	------------------	---------------	--------------	------------	------------

Yes	□ No ✓		
	s the strategy missing sufficient data to assess whether the pro DB guidelines?	pose	ed strategy has a negative effect, per Yes □ No ✓
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
✓	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**

Yes ✓ No □





# Hidalgo County #14-1.1

FMS ID: 152000035

# **FMS** Description

			ns And Merchants During Natural H Distribute Information On New Sys	Hazard Incident. Solicit Bids For Syster stem And Conduct Training
Strategy Type  □ Education and Outr □ Protected Areas	reach Activities		egulatory and Guidance evelopment Standards	✓ Flood Preparedness Programs □ Other:
Strategy Area City/ Cities			Insert snip of Lo	ocation Map here
County/ Counties	Hidalgo			
HUC 8	12110207			
	12110236			
HUC 12				
Study Area (sq. mi.)				
Emergency Ne	ed			
Yes ✓ No 🗆				
Known Flood R History of Flooding? Population at Risk Roadways flooded Critical Facilities Impa Notes:	Yes ✓	No 🗆 No 🗆	Frequency of flooding: # of structures inundated Miles inundated? Agricultural Land impacted	Yes □ No □
0 0 .				

Total Cost:	\$100,000	Study Sponsor:	Hidalgo County
Non-reoccurring Non- capital Cost (include in Total above):		These are one-time costs for progra non-engineering study costs.	am development, education campaign, and
Estimated year to start:	2023	Entity with Oversight	Hidalgo County
Time to complete?	2025	Included in a Hazard Mitigation Action Plan or other plan?	Yes ✓ No 🗆
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	Department Budget





Have the flood risk and fl	ood reduction im	npacts been evalu	uated?
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Yes	□ No ✓		
	the strategy missing sufficient data to assess whether the pro B guidelines?	pose	d strategy has a negative effect, per Yes □ No ✓
Rela	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations Reduce the # of structures that have been subject to repeated flooding events through property buyouts		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
			ı

#### **RFPG Recommended**





**Indian Lake Action #2** 

FMS ID: 152000005

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			n measures for all natural hazards Il retaining walls, and avoid buildin	such as the need to elevate structure g in high hazard areas
Strategy Type  ✓ Education and Out  □ Protected Areas	reach Activities		egulatory and Guidance evelopment Standards	<ul><li>☐ Flood Preparedness Programs</li><li>☐ Other:</li></ul>
Strategy Area City/ Cities	Indian Lake		Insert snip of Lo	ocation Map here
County/ Counties	Cameron			
HUC 8	12110208			
HUC 12				
Study Area (sq. mi.)				
Emergency Nec	ed			
Known Flood R	isk			
History of Flooding? Population at Risk	Yes ✓	No □	Frequency of flooding: # of structures inundated	
Roadways flooded Critical Facilities Impa Notes:	Yes  cted Yes	No □ No □	Miles inundated? Agricultural Land impacted	Yes □ No □

Total Cost:	\$500	Study Sponsor:	Indian Lake
Non-reoccurring Non- capital Cost (include in Total above):	These are one-time costs for program development, non-engineering study costs.		am development, education campaign, and
Estimated year to start:	2020	Entity with Oversight	Indian Lake
Time to complete?	2022	Included in a Hazard Mitigation Action Plan or other plan?	Yes ✓ No 🗆
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	General Fund; HMGP





### Have the flood risk and flood reduction impacts been evaluated?

Yes	□ No ✓		
	s the strategy missing sufficient data to assess whether the pro DB guidelines?	pose	ed strategy has a negative effect, per Yes □ No ✓
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event Reduce the # of newly constructed vulnerable critical		Increase the # of entities that adopt higher than NFIP-minimum standards Develop and maintain an operational stormwater asset
	facilities within the existing and future 100-YR floodplain Increase the # of communities participating in the National		management plan Increase the # of flood gauges (rainfall/stream) in the
	Flood Insurance Program  Decrease the average age of FEMA Flood Insurance Rate  Maps used to define SFHAs		region Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
✓	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations Reduce the # of structures that have been subject to repeated flooding events through property buyouts		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future
			conditions floodplain

#### **RFPG Recommended**





Indian Lake Action #9 FMS ID: 152000009

### **FMS Description** Prepare and advertise local evacuation plan and procedures **Strategy Type** ✓ Education and Outreach Activities ✓ Flood Preparedness Programs ☐ Regulatory and Guidance □ Protected Areas □ Development Standards ☐ Other: Strategy Area City/ Cities Indian Lake Insert snip of Location Map here County/ Counties Cameron HUC 8 12110208 **HUC 12** Study Area (sq. mi.) **Emergency Need**

#### **Known Flood Risk**

Yes ✓ No 🗆

History of Flooding?	Yes ✓ No 🗆	Frequency of flooding:	
Population at Risk		# of structures inundated	
Roadways flooded	Yes 🗆 No 🗆	Miles inundated?	
Critical Facilities Impacted	Yes □ No □	Agricultural Land impacted	Yes □ No □
Notes:			

Total Cost:	\$500	Study Sponsor:	Indian Lake
Non-reoccurring Non-	Non-reoccurring Non- These are one-time costs for progra		am development, education campaign, and
capital Cost (include in Total		non-engineering study costs.	
above):			
Estimated year to start:	2019	Entity with Oversight	Indian Lake
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No 🗆
	2021	Action Plan or other plan?	
Funding Dedicated?	Yes □ No ✓	(Potential) Source of Funding	General Fund; HMGP; FEMA AFG

Have the flood risk and flood reduction impacts been evaluated and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and f	ıate	<b>Э</b> С
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Yes	Nο	./
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### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per	Yes □ No 🗸
TWDB guidelines?	

#### **Related Goals**

	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain	Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program	Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs	Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards	Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process	Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program	Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
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	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
✓	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations	Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts	future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**





Indian Lake Action #11

FMS Descripti	$\alpha$ n
	$\mathbf{O}$

Adopt revised floodpl		clude model ordinance language and highe	er NFIP standards such as freeboard
Strategy Type  □ Education and Outr □ Protected Areas	reach Activities	<ul><li>✓ Regulatory and Guidance</li><li>□ Development Standards</li></ul>	<ul><li>☐ Flood Preparedness Programs</li><li>☐ Other:</li></ul>
Strategy Area City/ Cities	Indian Lake	Insert snip o	of Location Map here
County/ Counties	Cameron		
HUC 8	12110208		
HUC 12			
Study Area (sq. mi.)			
Emergency Ne Yes ✓ No □	ed		
Known Flood R	Risk		

History of Flooding?	Yes ✓ No 🗆	Frequency of flooding:	
Population at Risk		# of structures inundated	
Roadways flooded	Yes □ No □	Miles inundated?	
Critical Facilities Impacted	Yes □ No □	Agricultural Land impacted	Yes □ No □
Notes:			

Total Cost:	\$500	Study Sponsor:	Indian Lake		
Non-reoccurring Non- capital Cost (include in Total above):		These are one-time costs for program development, education campaign, and non-engineering study costs.			
Estimated year to start:	2018	Entity with Oversight	Indian Lake		
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No 🗆		
	2020	Action Plan or other plan?			
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	General Fund; HMGP		

Have the flood risk and flood reduction impacts been evaluated and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and f	ıate	<b>Э</b> С
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Yes	Nο	./
Y 44 C	1/1()	v



RFPG Recommended

Yes ✓ No □

# **FMS**

#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per	Yes □	No <b>✓</b>
TWDB quidelines?		

#### Related Goals Increase community access routes to critical facilities, Increase the # of entities that adopt higher than NFIPevacuation routes, during and after a flooding event minimum standards Reduce the # of newly constructed vulnerable critical Develop and maintain an operational stormwater asset facilities within the existing and future 100-YR floodplain management plan Increase the # of communities participating in the National Increase the # of flood gauges (rainfall/stream) in the Flood Insurance Program Decrease the average age of FEMA Flood Insurance Rate Increase the # of entities that have multi-year drainage Maps used to define SFHAs Increase the coverage of available flood hazard data by Increase the # of entities that integrate National Weather completing studies with identified construction projects to Service and USGS Texas Water Science Center (TXWSC) address flooding hazards flood warning system information into their local capabilities to disseminate warnings Increase participation in the regional flood planning process Increase use of nature-based flood risk reduction projects Provide regional detention that could be used for water Develop a regionally coordinated warning and emergency response program that can detect the flood threat and reuse applications or as part of a floodplain management program provide timely warning of impending flood danger Increase acreage of publicly protected open space in critical Increase the amount of publicly owned land in the region flood risk areas that is reused for a beneficial public use that can be utilized for future regional stormwater infrastructure Increase outreach and education activities, specifically Increase the proficiency of floodplain managers by targeting municipal floodplain managers, hosted by Region increasing the # of them that are certified as Certified 15 RFPG and available on the website Floodplain Managers (CFM) with the Texas Floodplain Management Association Increase the use reverse 911, TV, radio, social media, and Increase participation in the Community Rating System by billboards to communicate flood warnings, evacuation encouraging Region 15 floodplain management programs routes, and shelter locations to incorporate dedicated drainage fees to implement Reduce the # of structures that have been subject to future FMEs and FMPs; incorporate noncompliance repeated flooding events through property buyouts penalties; and who regulate development in the future conditions floodplain





La Villa #6-1.1 FMS ID: 152000038

Implement Program To		Weather Al	erts And Departmental Phone Listir	ngs With Contact Personnel For Res
Strategy Type  □ Education and Outre □ Protected Areas	ach Activities		egulatory and Guidance evelopment Standards	✓ Flood Preparedness Programs □ Other:
Strategy Area City/ Cities	La Villa		Insert snip of Lo	ocation Map here
,	Hidalgo			
HUC 8 HUC 12	12110208			
Study Area (sq. mi.)				
Emergency Nee	ed			
Yes ✓ No □				
Known Flood Ris	sk			
History of Flooding? Population at Risk	Yes ✓	No □	Frequency of flooding: # of structures inundated	
Roadways flooded Critical Facilities Impact Notes:	Yes □ ted Yes □	No □ No □	Miles inundated? Agricultural Land impacted	Yes □ No □
Stratony Costs				

Total Cost:	\$1,000	Study Sponsor:	La Villa		
Non-reoccurring Non- capital Cost (include in Total above):		These are one-time costs for program development, education campaign, and non-engineering study costs.			
Estimated year to start:		Entity with Oversight	La Villa		
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No 🗆		
	Completed	Action Plan or other plan?			
Funding Dedicated?	Yes □ No □	(Potential) Source of Funding	N/A		

Н	ave	the	flood	risk	and	floc	d red	duc	tion	impac	ts	been	eva	luat	teď	?
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Yes	No	✓



#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per Yes □ No ✓ TWDB guidelines?

#### Related Goals Increase community access routes to critical facilities, Increase the # of entities that adopt higher than NFIPevacuation routes, during and after a flooding event minimum standards Reduce the # of newly constructed vulnerable critical Develop and maintain an operational stormwater asset facilities within the existing and future 100-YR floodplain management plan Increase the # of communities participating in the National Increase the # of flood gauges (rainfall/stream) in the Flood Insurance Program Decrease the average age of FEMA Flood Insurance Rate Increase the # of entities that have multi-year drainage Maps used to define SFHAs Increase the coverage of available flood hazard data by Increase the # of entities that integrate National Weather completing studies with identified construction projects to Service and USGS Texas Water Science Center (TXWSC) address flooding hazards flood warning system information into their local capabilities to disseminate warnings Increase participation in the regional flood planning process Increase use of nature-based flood risk reduction projects Provide regional detention that could be used for water Develop a regionally coordinated warning and emergency reuse applications or as part of a floodplain management response program that can detect the flood threat and provide timely warning of impending flood danger program Increase acreage of publicly protected open space in critical Increase the amount of publicly owned land in the region flood risk areas that is reused for a beneficial public use that can be utilized for future regional stormwater infrastructure Increase outreach and education activities, specifically Increase the proficiency of floodplain managers by targeting municipal floodplain managers, hosted by Region increasing the # of them that are certified as Certified 15 RFPG and available on the website Floodplain Managers (CFM) with the Texas Floodplain Management Association Increase the use reverse 911, TV, radio, social media, and Increase participation in the Community Rating System by billboards to communicate flood warnings, evacuation encouraging Region 15 floodplain management programs routes, and shelter locations to incorporate dedicated drainage fees to implement Reduce the # of structures that have been subject to future FMEs and FMPs; incorporate noncompliance repeated flooding events through property buyouts penalties; and who regulate development in the future

conditions floodplain

#### RFPG Recommended





FMS ID: 152000039 La Villa #8-1.1

#### **FMS Description**

			zens And Merchants During Natural H all Distribute Information On New Sys	Hazard Incident. Solicit Bids For Systen stem And Conduct Training
Strategy Type  □ Education and Outr □ Protected Areas	reach Activities		Regulatory and Guidance Development Standards	✓ Flood Preparedness Programs □ Other:
Strategy Area City/ Cities County/ Counties HUC 8 HUC 12 Study Area (sq. mi.)	La Villa Hidalgo 12110208		Insert snip of Lo	ocation Map here
Emergency Ne	ed			
Yes ✓ No 🗆				
Known Flood R History of Flooding? Population at Risk Roadways flooded	Yes ✓	No □	Frequency of flooding: # of structures inundated Miles inundated?	
Critical Facilities Impa Notes:	cted Yes 🗆	No □	Agricultural Land impacted	Yes □ No □

#### Strategy Costs

Total Cost:	\$31,000	Study Sponsor:	La Villa			
Non-reoccurring Non-		These are one-time costs for program development, education campaign, and				
capital Cost (include in Total		non-engineering study costs.				
above):						
Estimated year to start:	2021	Entity with Oversight	La Villa			
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No □			
	2023	Action Plan or other plan?				
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	Jurisdiction Budget			

Have the flood risk and flood reduction impacts been evaluated?

Ves	NΩ	✓



#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per Yes □ No ✓ TWDB guidelines?

#### **Related Goals**

	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain	Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National	Increase the # of flood gauges (rainfall/stream) in the
	Flood Insurance Program  Decrease the average age of FEMA Flood Insurance Rate  Maps used to define SFHAs	region Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards	Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process	Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program	Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use	Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
✓	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations	Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts	future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**





McAllen #1-2.1 FMS ID: 152000042

Provide A Means of Disseminating Emergency Information To The Citizens of McAllen					
Strategy Type  □ Education and Outr □ Protected Areas	reach Activities		egulatory and Guidance evelopment Standards	✓ Flood Preparedness Programs □ Other:	
Strategy Area City/ Cities	McAllen		Insert snip of Lo	ocation Map here	
County/ Counties	Hidalgo				
HUC 8	12110208				
HUC 12					
Study Area (sq. mi.)					
Emergency Ne	ed				
Yes ✓ No 🗆					
Known Flood R	lisk				
History of Flooding? Population at Risk	Yes ✓	No □	Frequency of flooding: # of structures inundated		
Roadways flooded	Yes □	No 🗆	# of structures inundated?		
Critical Facilities Impa Notes:	cted Yes 🗆	No 🗆	Agricultural Land impacted	Yes □ No □	

## **Strategy Costs**

Total Cost:	\$500,000	Study Sponsor:	McAllen
Non-reoccurring Non- capital Cost (include in Total above):		These are one-time costs for program development, education campaign, on non-engineering study costs.	
above).			
Estimated year to start:	2021	Entity with Oversight	McAllen
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No 🗆
	2022	Action Plan or other plan?	
Funding Dedicated?	Yes □ No ✓	(Potential) Source of Funding	Grants, Matching City Funds

Have the flood risk and flood reduction impacts been evaluated?



#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per Yes □ No ✓ TWDB guidelines?

<b>k</b> e	lated Goals	
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain	Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program	Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs	Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards	Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process	Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program	Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use	Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
✓	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations	Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts	future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**





McAllen #1-2.1 FMS ID: 152000041

F	V	IS	D	es	cr	ip	ti	0	n

FMS Description	n			
Develop Emergency N Weather In McAllen	otification Awarene	ess System	For Traveling Public Via Transportat	tion System In The Event of Severe
Strategy Type  □ Education and Outr □ Protected Areas	reach Activities		egulatory and Guidance evelopment Standards	✓ Flood Preparedness Programs □ Other:
Strategy Area City/ Cities	McAllen		Insert snip of Lo	ocation Map here
County/ Counties	Hidalgo			
HUC 8	12110208			
HUC 12				
Study Area (sq. mi.)				
Emergency Nee	ed			
Yes ✓ No 🗆				
Known Flood R	lisk			
History of Flooding? Population at Risk	Yes ✓	No □	Frequency of flooding: # of structures inundated	
Roadways flooded	Yes □	No □	Miles inundated?	
Critical Facilities Impa Notes:	cted Yes 🗆	No □	Agricultural Land impacted	Yes □ No □

Total Cost:	\$500,000	Study Sponsor:	McAllen	
Non-reoccurring Non-		These are one-time costs for program development, education campaign,		
capital Cost (include in Total		non-engineering study costs.		
above):				
Estimated year to start:	2021	Entity with Oversight	McAllen	
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No 🗆	
	2024	Action Plan or other plan?		
Funding Dedicated?	Yes □ No ✓	(Potential) Source of Funding	Grants, Matching City Funds	

Vρς	Nο	✓



#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per Yes □ No ✓ TWDB guidelines?

#### **Related Goals**

	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain	Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National	Increase the # of flood gauges (rainfall/stream) in the
_	Flood Insurance Program	region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs	Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards	Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process	Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program	Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use	Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
✓	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations	Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts	future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**





McAllen #11-1.1 FMS ID: 152000040

#### FM/S Description

Implement Program To		Neather A	lerts And Departmental Phone Listir	ngs With Contact Personnel For Reside
Strategy Type  □ Education and Outro □ Protected Areas	each Activities		Regulatory and Guidance Development Standards	✓ Flood Preparedness Programs □ Other:
Strategy Area City/ Cities County/ Counties HUC 8 HUC 12 Study Area (sq. mi.)	McAllen Hidalgo 12110208		Insert snip of Lo	ocation Map here
Emergency Nee Yes ✓ No □	ed			
Known Flood R History of Flooding? Population at Risk Roadways flooded Critical Facilities Impac Notes:	Yes ✓	No □ No □ No □	Frequency of flooding: # of structures inundated Miles inundated? Agricultural Land impacted	Yes □ No □

#### Strategy Costs

Total Cost:	\$1,000	Study Sponsor: McAllen		
Non-reoccurring Non- capital Cost (include in Total		These are one-time costs for program development, education campaigr non-engineering study costs.		
above):				
Estimated year to start:		Entity with Oversight	McAllen	
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No □	
	Completed	Action Plan or other plan?		
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	Jurisdiction Budget	

Have the flood risk and flood reduction impacts been evaluated?



#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per Yes  $\square$  No  $\checkmark$  TWDB guidelines?

Rel	lated Goals	
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain	Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program	Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs	Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards	Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process	Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program	Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use	Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
✓	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations	Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts	future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**





Mercedes #9-1.1 FMS ID: 152000044

#### **FMS** Description

Implement Program To Provide Links To	Weather Alerts And Departmental	Phone Listings With Contact Personnel For Reside
Strategy Type  □ Education and Outreach Activities □ Protected Areas	<ul><li>□ Regulatory and Guidance</li><li>□ Development Standards</li></ul>	
Strategy Area City/ Cities Mercedes County/ Counties Hidalgo HUC 8 12110208 HUC 12 Study Area (sq. mi.)	Inser	rt snip of Location Map here
Emergency Need  Yes ✓ No □		
Known Flood Risk  History of Flooding?  Population at Risk  Roadways flooded  Critical Facilities Impacted  Notes:  Yes	# of structures  No  Miles i	s inundated inundated?

## **Strategy Costs**

Total Cost:	\$1,000	Study Sponsor:	Mercedes
Non-reoccurring Non- capital Cost (include in Total above):		These are one-time costs for progra non-engineering study costs.	am development, education campaign, and
Estimated year to start:	2022	Entity with Oversight	Mercedes
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No □
	2024	Action Plan or other plan?	
Funding Dedicated?	Yes □ No ✓	(Potential) Source of Funding	Jurisdiction Budget

Have the flood risk and flood reduction impacts been evaluated?

Yes	No	✓
. 00		



#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per Yes  $\square$  No  $\checkmark$  TWDB guidelines?

Rel	ated Goals	
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain	Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program	Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs	Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards	Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program	Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use	Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
✓	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations	Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts	future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**





Mercedes #11-1.1

FMS ID: 152000043

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h Activities			
			✓ Flood Preparedness Programs □ Other:
dalgo		Insert snip of Lo	ocation Map here
Yes ✓ Yes □	No 🗆 No 🗆 No 🗆	Frequency of flooding: # of structures inundated Miles inundated? Agricultural Land impacted	Yes □ No □
	Yes □	ercedes dalgo 110208  Yes ✓ No□ Yes □ No□	Development Standards  ercedes dalgo 110208  Yes ✓ No □ Frequency of flooding: # of structures inundated Yes □ No □ Miles inundated?

#### Strategy Costs

Total Cost:	\$25,000	Study Sponsor:	Mercedes
Non-reoccurring Non-		These are one-time costs for program development, education campaign	
capital Cost (include in Total		non-engineering study costs.	
above):			
Estimated year to start:	2021	Entity with Oversight	Mercedes
Time to complete?	2023	Included in a Hazard Mitigation	Yes ✓ No □
		Action Plan or other plan?	
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	Jurisdiction Budget

Have the flood risk and flood reduction impacts been evaluated?

V	NI -	/
Vρς	Nο	✓



#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per Yes □ No ✓ TWDB guidelines?

#### **Related Goals**

	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain	Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National	Increase the # of flood gauges (rainfall/stream) in the
	Flood Insurance Program  Decrease the average age of FEMA Flood Insurance Rate  Maps used to define SFHAs	region Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards	Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process	Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program	Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use	Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
✓	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations	Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts	future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**





**Mission #1-1.1** FMS ID: 152000045

#### **FMS** Description

			ns And Merchants During Natural H Distribute Information On New Sys	Hazard Incident. Solicit Bids For System stem And Conduct Training
Strategy Type  □ Education and Outre □ Protected Areas	each Activities		gulatory and Guidance evelopment Standards	✓ Flood Preparedness Programs □ Other:
Strategy Area City/ Cities County/ Counties HUC 8 HUC 12 Study Area (sq. mi.)	Mission Hidalgo 12110208		Insert snip of Lo	ocation Map here
Emergency Nee Yes ✓ No □	ed			
Known Flood R  History of Flooding? Population at Risk Roadways flooded Critical Facilities Impac Notes:	Yes ✓ Yes □	No □ No □ No □	Frequency of flooding: # of structures inundated Miles inundated? Agricultural Land impacted	Yes □ No □
Strategy Costs				

Total Cost:	\$31,000	Study Sponsor:	Mission				
Non-reoccurring Non-		These are one-time costs for program development, education campaign, a					
capital Cost (include in Total		non-engineering study costs.					
above):							
Estimated year to start:		Entity with Oversight	Mission				
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No □				
	Completed	Action Plan or other plan?					
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	City Of Mission				

Have the flood risk and flood reduction impacts been evaluated?

Vρς	Nο	✓



#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per Yes □ No ✓ TWDB guidelines?

#### **Related Goals**

	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical	Develop and maintain an operational stormwater asset
	facilities within the existing and future 100-YR floodplain Increase the # of communities participating in the National	management plan Increase the # of flood gauges (rainfall/stream) in the
_	Flood Insurance Program	region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs	Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards	Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process	Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program	Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use	Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
✓	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations	Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts	future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future

conditions floodplain

#### **RFPG Recommended**





**Mission #7-1.1** FMS ID: 152000046

FMS Descriptio Implement Program To		Weather Al	erts And Departmental Phone Listir	ngs With Contact Personnel For Resid
Strategy Type  □ Education and Outro □ Protected Areas	each Activities		egulatory and Guidance evelopment Standards	<ul><li>✓ Flood Preparedness Programs</li><li>□ Other:</li></ul>
Strategy Area City/ Cities	Mission		Insert snip of Lo	ocation Map here
County/ Counties	Hidalgo			
HUC 8	12110208			
HUC 12				
Study Area (sq. mi.)				
<b>Emergency Nee</b>	ed			
Yes ✓ No 🗆				
Known Flood R	isk			
History of Flooding? Population at Risk	Yes ✓		Frequency of flooding: # of structures inundated	
Roadways flooded Critical Facilities Impac Notes:	Yes 🗆 Yes 🗆	No □ No □	Miles inundated? Agricultural Land impacted	Yes □ No □
Strategy Costs				

Total Cost:	\$8,500	Study Sponsor:	Mission				
	\$0,500						
Non-reoccurring Non- capital Cost (include in Total		These are one-time costs for program development, education campaign, and non-engineering study costs.					
above):							
Estimated year to start:		Entity with Oversight	Mission				
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No □				
	Completed	Action Plan or other plan?					
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	City Of Mission				

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VΔc	Nο	



#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per Yes  $\square$  No  $\square$  TWDB guidelines?

Rel	ated Goals	
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain	Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program	Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs	Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards	Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program	Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use	Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
✓	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations	Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts	future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**





Palmview #5-1.1 FMS ID: 152000047

#### **FMS Description** Implement Program To Provide Links To Weather Alerts And Departmental Phone Listings With Contact Personnel For Residents. **Strategy Type** □ Education and Outreach Activities ☐ Regulatory and Guidance ✓ Flood Preparedness Programs Protected Areas □ Development Standards ☐ Other: Strategy Area City/ Cities Palmview Insert snip of Location Map here County/ Counties Hidalgo HUC 8 12110208 **HUC 12** Study Area (sq. mi.) **Emergency Need**

#### **Known Flood Risk**

Yes ✓ No 🗆

History of Flooding?	Yes ✓ No 🗆	Frequency of flooding:	
Population at Risk		# of structures inundated	
Roadways flooded	Yes □ No □	Miles inundated?	
Critical Facilities Impacted	Yes □ No □	Agricultural Land impacted	Yes □ No □
Notes:			

Total Cost:	\$1,000	Study Sponsor:	Palmview				
Non-reoccurring Non-		These are one-time costs for program development, education campaign, and					
capital Cost (include in Total above):		non-engineering study costs.					
Estimated year to start:		Entity with Oversight	Palmview				
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No □				
	Completed	Action Plan or other plan?					
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	N/A				

Have 1	the f	lood	risk	and	flood	rec	lucti	on i	imp	acts	been	eva	luat	:ed	?

Yes	No	<b>√</b>



#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per	Yes □	No <b>✓</b>
TWDB guidelines?		

#### **Related Goals**

	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain	Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program	Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs	Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards	Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program	Increase use of nature-based flood risk reduction projects. Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use	Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
✓	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations	Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts	future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

## **RFPG Recommended**





Palmview #7-1.1 FMS ID: 152000048

## **FMS Description**

Develop Procedures For Mass Notifications To Citizens And Merchants During Natural Hazard Incident. Solicit Bids For System. Purchase Emergency Notification System And Install Distribute Information On New System And Conduct Training.

· · · · · · · · · · · · · · · · · · ·	<b>.</b>			<b>3</b>
Strategy Type  □ Education and Outread □ Protected Areas	ch Activities		egulatory and Guidance evelopment Standards	<ul> <li>□ Flood Preparedness Programs</li> <li>✓ Flood Measurement and Warning</li> </ul>
Strategy Area City/ Cities			Insert snip of Lo	ocation Map here
-	idalgo			
	2110208			
HUC 12				
Study Area (sq. mi.)				
Emergency Need Yes ✓ No □	d			
Known Flood Ris	k			
History of Flooding? Population at Risk	Yes ✓	No 🗆	Frequency of flooding: # of structures inundated	
Roadways flooded	Yes □	No □	Miles inundated?	Van D. Na D
Critical Facilities Impacte Notes:	d Yes 🗆	No □	Agricultural Land impacted	Yes □ No □

Total Cost:	\$31,000	Study Sponsor:	Palmview
Non-reoccurring Non- capital Cost (include in Total above):		These are one-time costs for program development, education campaig non-engineering study costs.	
Estimated year to start:		Entity with Oversight	Palmview
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No □
	Completed	Action Plan or other plan?	
Funding Dedicated?	Yes □ No ✓	(Potential) Source of Funding	Jurisdiction Budget





## Have the flood risk and flood reduction impacts been evaluated?

Yes □ No ✓	
Was the strategy missing sufficient data to assess whether the proTWDB guidelines?	oposed strategy has a negative effect, per Yes □ No ✓
Related Goals	
<ul> <li>Increase community access routes to critical facilities, evacuation routes, during and after a flooding event</li> <li>Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain</li> <li>Increase the # of communities participating in the National</li> </ul>	<ul> <li>Increase the # of entities that adopt higher than NFIP-minimum standards</li> <li>Develop and maintain an operational stormwater asset management plan</li> <li>Increase the # of flood gauges (rainfall/stream) in the</li> </ul>
<ul> <li>Flood Insurance Program</li> <li>Decrease the average age of FEMA Flood Insurance Rate</li> <li>Maps used to define SFHAs</li> <li>Increase the coverage of available flood hazard data by</li> <li>completing studies with identified construction projects to</li> </ul>	<ul> <li>region</li> <li>Increase the # of entities that have multi-year drainage</li> <li>CIP list</li> <li>Increase the # of entities that integrate National Weather</li> <li>Service and USGS Texas Water Science Center (TXWSC)</li> </ul>
<ul> <li>address flooding hazards</li> <li>Increase participation in the regional flood planning process</li> <li>Provide regional detention that could be used for water reuse applications or as part of a floodplain management program</li> <li>Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use</li> </ul>	flood warning system information into their local capabilities to disseminate warnings  Increase use of nature-based flood risk reduction projects  Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger  Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater
Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website	infrastructure  ☐ Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
<ul> <li>Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations</li> <li>Reduce the # of structures that have been subject to repeated flooding events through property buyouts</li> </ul>	<ul> <li>Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain</li> </ul>
RFPG Recommended	

## Yes ✓ No □





Pharr #8-1.1 FMS ID: 152000050

## **FMS Description**

Implement Program To Provide Links To Weather Alerts And Departmental Phone Listings With Contact Personnel For Residents.

Strategy Type  ☐ Education and Outreach Activities ☐ Protected Areas	<ul><li>Regulatory and Guidance</li><li>Development Standards</li></ul>	<ul><li>☐ Flood Preparedness Programs</li><li>✓ Flood Measurement and Warning</li></ul>
Strategy Area City/ Cities	Insert snip	of Location Map here
County/ Counties Hidalgo		
HUC 8 12110208		
HUC 12		
Study Area (sq. mi.)		
Emergency Need Yes ✓ No □		

#### **Known Flood Risk**

History of Flooding?	Yes ✓ No	☐ Frequency of flooding:	
Population at Risk		# of structures inundated	
Roadways flooded	Yes □ No	☐ Miles inundated?	
Critical Facilities Impacted	Yes □ No	☐ Agricultural Land impacted	Yes □ No □
Notes:			

Total Cost:	\$1,000	Study Sponsor:	Pharr
Non-reoccurring Non- capital Cost (include in Total above):		These are one-time costs for program development, education campa non-engineering study costs.	
Estimated year to start:		Entity with Oversight	Pharr
,		, ,	
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No 🗆
	Completed	Action Plan or other plan?	
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	Jurisdiction Budget

Voc	Nο	./
Yes	INIO	~



# **FMS**

#### Flood Management Strategies Fact Sheet

penalties; and who regulate development in the future

conditions floodplain

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per Yes □ No ✓ TWDB guidelines?

Rel	ated Goals	
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain	Develop and maintain an operational stormwater asset
	Increase the # of communities participating in the National	management plan Increase the # of flood gauges (rainfall/stream) in the
	Flood Insurance Program Decrease the average age of FEMA Flood Insurance Rate	region Increase the # of entities that have multi-year drainage
	Maps used to define SFHAs  Increase the coverage of available flood hazard data by	CIP list Increase the # of entities that integrate National Weather
	completing studies with identified construction projects to address flooding hazards	Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process	Increase use of nature-based flood risk reduction project
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management	Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	program Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use	Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater
	nood risk areas that is reused for a beneficial public use	infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
✓	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations	Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to	future FMEs and FMPs; incorporate noncompliance

#### **RFPG Recommended**

Reduce the # of structures that have been subject to repeated flooding events through property buyouts

Yes ✓ No 🗆





Pharr #10-1.1 FMS ID: 152000049

## **FMS Description**

			zens And Merchants During Natural H all Distribute Information On New Sys	lazard Incident. Solicit Bids For System. tem And Conduct Training.
Strategy Type  □ Education and Outrea  □ Protected Areas	ach Activities		Regulatory and Guidance Development Standards	<ul><li>☐ Flood Preparedness Programs</li><li>✓ Flood Measurement and Warning</li></ul>
Strategy Area City/ Cities			Insert snip of Lo	ocation Map here
County/ Counties F	Hidalgo			
HUC 8 1	2110208			
HUC 12				
Study Area (sq. mi.)				
Emergency Need Yes ✓ No □	d			
Known Flood Ris	sk			
History of Flooding? Population at Risk	Yes ✓	No □	Frequency of flooding: # of structures inundated	
Roadways flooded	Yes □	No □	# of structures inundated?	
Critical Facilities Impacto Notes:	ed Yes 🗆	No □	Agricultural Land impacted	Yes □ No □

Total Cost:	\$5,000	Study Sponsor:	Pharr	
Non-reoccurring Non-		These are one-time costs for program development, education campaign, and		
capital Cost (include in Total		non-engineering study costs.		
above):				
Estimated year to start:		Entity with Oversight	Pharr	
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No 🗆	
	Completed	Action Plan or other plan?		
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	Jurisdiction Budget	





## Have the flood risk and flood reduction impacts been evaluated?

Yes	□ No ✓		
	s the strategy missing sufficient data to assess whether the pro DB guidelines?	pose	d strategy has a negative effect, per Yes □ No ✓
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
✓	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
<b>&gt;</b> E			

### RFPG Recommended

Yes ✓ No 🗆





Alamo #4-1.2 FMS ID: 152000051

### **FMS Description**

Provide Traffic Contro		ssistance Du	uring Emergency Situations	
Strategy Type  □ Education and Outr □ Protected Areas	reach Activities		egulatory and Guidance evelopment Standards	<ul><li>☐ Flood Preparedness Programs</li><li>☐ Other:</li></ul>
Strategy Area City/ Cities County/ Counties	Alamo Hidalgo		Insert snip of Loc	cation Map here
HUC 8	12110208			
HUC 12 Study Area (sq. mi.)				
Emergency Ne Yes ✓ No□	ed			
Known Flood R  History of Flooding?  Population at Risk  Roadways flooded  Critical Facilities Impa	Yes ✓ Yes □	No □	Frequency of flooding: # of structures inundated Miles inundated? Agricultural Land impacted	Yes □ No □

## **Strategy Costs**

Notes:

Total Cost:	\$10,000	Study Sponsor:	Alamo		
Non-reoccurring Non-		These are one-time costs for program development, education campaign, and			
capital Cost (include in Total		non-engineering study costs.			
above):					
Estimated year to start:	2024	Entity with Oversight	Alamo		
Time to complete?	2026	Included in a Hazard Mitigation	Yes ✓ No 🗆		
		Action Plan or other plan?			
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	Identify Grants; Police Department		
-		_	Budget		





## Have the flood risk and flood reduction impacts been evaluated?

Yes	□ No ✓		
	s the strategy missing sufficient data to assess whether the pro DB guidelines?	pose	d strategy has a negative effect, per Yes □ No ✓
Rel	ated Goals		
✓	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

### **RFPG Recommended**

Yes ✓ No □





Port Isabel Action #10 FMS ID: 152000010

## **FMS Description**

Prepare and advertise local evacuation plan

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trat	tegy	LVIDO
ALI ALI	$\mathbf{I} \mapsto (\mathbf{I} \vee \mathbf{I})$	$I \vee I \cup \vdash$
otiu	LUGI	1 100

✓ Education and Outreach Activities	<ul> <li>Regulatory and Guidance</li> </ul>	✓ Flood Preparedness Program:
□ Protected Areas	□ Development Standards	□ Other·

Insert snip of Location Map here

### Strategy Area

City/ Cities Port Isabel
County/ Counties Cameron
HUC 8 12110208

HUC 12

Study Area (sq. mi.)

## **Emergency Need**

Yes ✓ No □

#### **Known Flood Risk**

History of Flooding?	Yes ✓	No □	Frequency of flooding:		
Population at Risk			# of structures inundated		
Roadways flooded	Yes 🗆	No $\square$	Miles inundated?		
Critical Facilities Impacted	Yes 🗆	No □	Agricultural Land impacted	Yes 🗆	No □
Notes:					

### **Strategy Costs**

Total Cost:	\$500	Study Sponsor:	Port Isabel	
Non-reoccurring Non-		These are one-time costs for program development, education campaign,		
capital Cost (include in Total		non-engineering study costs.		
above):				
Estimated year to start:	2019	Entity with Oversight	Port Isabel	
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No □	
	2021	Action Plan or other plan?		
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	HMGP; General Funds; AFG	

Have the flood risk and flood reduction impacts been evaluated?

Yes	Nο	./
YPS	INIO	~



# **FMS**

#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per Yes □ No ✓ TWDB guidelines?

#### **Related Goals**

	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event	Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain	Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program	Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs	Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards	Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program	Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use	Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website	Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
✓	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations	Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts	future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain

#### **RFPG Recommended**

Yes ✓ No 🗆





FMS ID: 152000011

### Port Isabel Action #11

## **FMS** Description

Undate floodplain management ordinances to include higher standards required to join the CRS program; Join the CRS program

upon adoption of ordi	•	es to include fligher standards required to	o join the eks program, Join the eks pro
Strategy Type  □ Education and Outro □ Protected Areas	each Activities	<ul><li>✓ Regulatory and Guidance</li><li>□ Development Standards</li></ul>	<ul><li>☐ Flood Preparedness Programs</li><li>☐ Other:</li></ul>
Strategy Area City/ Cities	Port Isabel	Insert snip	of Location Map here
County/ Counties	Cameron		
HUC 8	12110208		
HUC 12			
Study Area (sq. mi.)			
Emergency Nee Yes ✓ No □	ed		

## **Known Flood Risk**

History of Flooding?	Yes ✓ No 🗆	Frequency of flooding:	
Population at Risk		# of structures inundated	
Roadways flooded	Yes □ No □	Miles inundated?	
Critical Facilities Impacted	Yes □ No □	Agricultural Land impacted	Yes □ No □
Notes:			

Total Cost:	\$500	Study Sponsor:	Port Isabel	
Non-reoccurring Non- capital Cost (include in Total above):		These are one-time costs for program development, education campaign, and non-engineering study costs.		
Estimated year to start:	2018	Entity with Oversight	Port Isabel	
Time to complete?	2020	Included in a Hazard Mitigation Action Plan or other plan?	Yes ✓ No 🗆	
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	HMGP; General Funds	





## Have the flood risk and flood reduction impacts been evaluated?

Yes	s □ No ✓	0.0	
	is the strategy missing sufficient data to assess whether the pro DB guidelines?	pose	ed strategy has a negative effect, per Yes □ No ✓
Rel	lated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain Increase the # of communities participating in the National		Increase the # of entities that adopt higher than NFIP-minimum standards Develop and maintain an operational stormwater asset management plan Increase the # of flood gauges (rainfall/stream) in the
	Flood Insurance Program Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		region Increase the # of entities that have multi-year drainage CIP list Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program Increase acreage of publicly protected open space in critical		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger Increase the amount of publicly owned land in the region
	flood risk areas that is reused for a beneficial public use		that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations Reduce the # of structures that have been subject to repeated flooding events through property buyouts	✓	Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
2FI	PG Recommended		





Port Isabel Action #12

	FMS ID: 1520	00012
olain standards		
<ul><li>✓ Regulatory and Guidance</li><li>□ Development Standards</li></ul>	□ Flood □ Othe	d Preparedness Programs r:
Insert snij	of Location M	ap here

## **FMS Description**

Adopt NFIP model ordinance with higher floodplain standards

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Ju	ate	uv	. I V	$\mathbf{v}$
		. TI I	- 1	_

□ Education and Outreach Activities

	☐ Development Standards	□ Other:	
Port Isabel	Insert snip	of Location Map here	
Cameron			
12110208			
	Cameron	Port Isabel Insert snip Cameron	Port Isabel Insert snip of Location Map here Cameron

## **Emergency Need**

Yes ✓ No 🗆

#### **Known Flood Risk**

History of Flooding?	Yes ✓ No 🗆	Frequency of flooding:	
Population at Risk		# of structures inundated	
Roadways flooded	Yes □ No □	Miles inundated?	
Critical Facilities Impacted	Yes □ No □	Agricultural Land impacted Yes $\square$ No $\square$	
Notes:			

## **Strategy Costs**

Total Cost:	\$500	Study Sponsor:	Port Isabel		
Non-reoccurring Non-		These are one-time costs for program development, education campaign,			
capital Cost (include in Total		non-engineering study costs.			
above):					
Estimated year to start:	2018	Entity with Oversight	Port Isabel		
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No □		
	2020	Action Plan or other plan?			
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	HMGP; General Funds		

Have the flood risk and flood reduction impacts been evaluated?

Yes	Nο	./
YPS	INIO	~



RFPG Recommended

Yes ✓ No □

## **FMS**

#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per	Yes □	No <b>✓</b>
TWDB quidelines?		

#### Related Goals Increase community access routes to critical facilities, Increase the # of entities that adopt higher than NFIPevacuation routes, during and after a flooding event minimum standards Reduce the # of newly constructed vulnerable critical Develop and maintain an operational stormwater asset facilities within the existing and future 100-YR floodplain management plan Increase the # of communities participating in the National Increase the # of flood gauges (rainfall/stream) in the Flood Insurance Program Decrease the average age of FEMA Flood Insurance Rate Increase the # of entities that have multi-year drainage Maps used to define SFHAs Increase the coverage of available flood hazard data by Increase the # of entities that integrate National Weather completing studies with identified construction projects to Service and USGS Texas Water Science Center (TXWSC) address flooding hazards flood warning system information into their local capabilities to disseminate warnings Increase participation in the regional flood planning process Increase use of nature-based flood risk reduction projects Provide regional detention that could be used for water Develop a regionally coordinated warning and emergency response program that can detect the flood threat and reuse applications or as part of a floodplain management program provide timely warning of impending flood danger Increase acreage of publicly protected open space in critical Increase the amount of publicly owned land in the region flood risk areas that is reused for a beneficial public use that can be utilized for future regional stormwater infrastructure Increase outreach and education activities, specifically Increase the proficiency of floodplain managers by targeting municipal floodplain managers, hosted by Region increasing the # of them that are certified as Certified 15 RFPG and available on the website Floodplain Managers (CFM) with the Texas Floodplain Management Association Increase the use reverse 911, TV, radio, social media, and Increase participation in the Community Rating System by billboards to communicate flood warnings, evacuation encouraging Region 15 floodplain management programs routes, and shelter locations to incorporate dedicated drainage fees to implement Reduce the # of structures that have been subject to future FMEs and FMPs; incorporate noncompliance repeated flooding events through property buyouts penalties; and who regulate development in the future conditions floodplain





Port Isabel Action #21

FMS ID: 152000013

## **FMS Description**

Use the internet and social media to warn citizens of disasters and extreme weather on a regular basis as well as how to prepare

for such events and mi	tigate damages			. a . ogala. saste as mon as non to pro
Strategy Type  □ Education and Outre □ Protected Areas	each Activities		egulatory and Guidance evelopment Standards	✓ Flood Preparedness Programs □ Other:
,	Port Isabel Cameron 12110208		Insert snip of Lo	ocation Map here
Emergency Nee Yes ✓ No □	ed			
Known Flood Ri History of Flooding? Population at Risk Roadways flooded Critical Facilities Impac Notes:	Yes ✓ Yes □	No 🗆 No 🗆	Frequency of flooding: # of structures inundated Miles inundated? Agricultural Land impacted	Yes □ No □

Total Cost:	\$500	Study Sponsor:	Port Isabel		
Non-reoccurring Non- capital Cost (include in Total above):		These are one-time costs for program development, education campaign, and non-engineering study costs.			
Estimated year to start:	2018	Entity with Oversight	Port Isabel		
Time to complete?	2020	Included in a Hazard Mitigation Action Plan or other plan?	Yes ✓ No 🗆		
Funding Dedicated?	Yes □ No ✓	(Potential) Source of Funding	HMGP; General Funds		



Yes ✓ No 🗆



#### Flood Management Strategies Fact Sheet

## Have the flood risk and flood reduction impacts been evaluated?

Yes	□ No ✓		
	s the strategy missing sufficient data to assess whether the pro DB guidelines?	pose	d strategy has a negative effect, per Yes □ No ✓
Rel	ated Goals		
	Increase community access routes to critical facilities, evacuation routes, during and after a flooding event		Increase the # of entities that adopt higher than NFIP-minimum standards
	Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain		Develop and maintain an operational stormwater asset management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards		Increase the # of entities that integrate National Weather Service and USGS Texas Water Science Center (TXWSC) flood warning system information into their local capabilities to disseminate warnings
	Increase participation in the regional flood planning process Provide regional detention that could be used for water reuse applications or as part of a floodplain management program		Increase use of nature-based flood risk reduction projects Develop a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use		Increase the amount of publicly owned land in the region that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website		Increase the proficiency of floodplain managers by increasing the # of them that are certified as Certified Floodplain Managers (CFM) with the Texas Floodplain Management Association
✓	Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations		Increase participation in the Community Rating System by encouraging Region 15 floodplain management programs to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to repeated flooding events through property buyouts		future FMEs and FMPs; incorporate noncompliance penalties; and who regulate development in the future conditions floodplain
RFF	PG Recommended		





Port Isabel Action #25

FMS ID: 152000014

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Implement early warn	ning system for resi	dents to notify of natural disasters; three	warning sirens would be installed	
Strategy Type  ☐ Education and Outreach Activities ☐ Protected Areas		<ul><li>Regulatory and Guidance</li><li>Development Standards</li></ul>	✓ Flood Preparedness Program □ Other:	
Strategy Area City/ Cities	Port Isabel	Insert snip	of Location Map here	
County/ Counties	Cameron			
HUC 8	12110208			
HUC 12				
Study Area (sq. mi.)				
Emergency Ne Yes ✓ No □	ed			

#### Known Flood Risk

History of Flooding?	Yes ✓	No 🗆	Frequency of flooding:		
Population at Risk			# of structures inundated		
Roadways flooded	Yes 🗆	No $\square$	Miles inundated?		
Critical Facilities Impacted	Yes 🗆	No $\square$	Agricultural Land impacted	Yes □	No $\square$
Notes:					

Total Cost:	\$100,000	Study Sponsor:	Port Isabel
Non-reoccurring Non-		These are one-time costs for program development, education campaign, ar	
capital Cost (include in Total		non-engineering study costs.	
above):			
Estimated year to start:	2019	Entity with Oversight	Port Isabel
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No □
	2021	Action Plan or other plan?	
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	HMGP; General Funds

Have the flood risk and flood reduction impacts been evaluated and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and f	ıate	<b>Э</b> С
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Yes	INIO	~



# **FMS**

#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per Yes □ No ✓ TWDB guidelines?

Rel	latec	G	oa	S
	Increa	ase c	omr	nı

- Increase community access routes to critical facilities, evacuation routes, during and after a flooding event
   Reduce the # of newly constructed vulnerable critical facilities within the existing and future 100-YR floodplain
   Increase the # of communities participating in the National Flood Insurance Program
   Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs
   Increase the coverage of available flood hazard data by completing studies with identified construction projects to address flooding hazards
- Increase participation in the regional flood planning process
   Provide regional detention that could be used for water reuse applications or as part of a floodplain management program
- Increase acreage of publicly protected open space in critical flood risk areas that is reused for a beneficial public use
- Increase outreach and education activities, specifically targeting municipal floodplain managers, hosted by Region 15 RFPG and available on the website
- Increase the use reverse 911, TV, radio, social media, and billboards to communicate flood warnings, evacuation routes, and shelter locations
- Reduce the # of structures that have been subject to repeated flooding events through property buyouts

#### RFPG Recommended

Yes ✓ No 🗆

	Increase the # of entities that adopt higher than NFIP-
	minimum standards
	Develop and maintain an operational stormwater asset
	management plan
	Increase the # of flood gauges (rainfall/stream) in the
	region
	Increase the # of entities that have multi-year drainage
	CIP list
	Increase the # of entities that integrate National Weather
	Service and USGS Texas Water Science Center (TXWSC)
	flood warning system information into their local
	capabilities to disseminate warnings
	Increase use of nature-based flood risk reduction projects
$\checkmark$	Develop a regionally coordinated warning and emergency
	response program that can detect the flood threat and
	provide timely warning of impending flood danger
	Increase the amount of publicly owned land in the region
	that can be utilized for future regional stormwater
	infrastructure
	Increase the proficiency of floodplain managers by
	increasing the # of them that are certified as Certified
	Floodplain Managers (CFM) with the Texas Floodplain
	Management Association
	Increase participation in the Community Rating System by
	encouraging Region 15 floodplain management programs
	to incorporate dedicated drainage fees to implement
	future FMEs and FMPs; incorporate noncompliance

penalties; and who regulate development in the future

conditions floodplain





Primera Action #1 FMS ID: 152000015

## **FMS Description**

Amend subdivision or	dinances to require	e retention or detention ponds in any new	subdivision	
Strategy Type  □ Education and Outreach Activities □ Protected Areas		<ul><li>✓ Regulatory and Guidance</li><li>□ Development Standards</li></ul>	<ul><li>☐ Flood Preparedness Programs</li><li>☐ Other:</li></ul>	
Strategy Area City/ Cities	Primera	Insert snip	of Location Map here	
County/ Counties	Cameron			
HUC 8	12110208			
HUC 12				
Study Area (sq. mi.)				
Emergency Ne Yes ✓ No □	ed			

#### **Known Flood Risk**

History of Flooding?	Yes ✓	No $\square$	Frequency of flooding:	
Population at Risk			# of structures inundated	
Roadways flooded	Yes □	No $\square$	Miles inundated?	
Critical Facilities Impacted	Yes □	No $\square$	Agricultural Land impacted	Yes □ No □
Notes:				

Total Cost:	\$5,000	Study Sponsor:	Primera	
Non-reoccurring Non-		These are one-time costs for program development, education campaign, and		
capital Cost (include in Total		non-engineering study costs.		
above):				
Estimated year to start:	2018	Entity with Oversight	Primera	
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No □	
	2020	Action Plan or other plan?		
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	Local Funds	

Have the flood risk and flood reduction impacts been evaluated and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and f	ıate	<b>Э</b> С
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Yes	Nο	./
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## **FMS**

#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per	Yes □ No 🗸
TWDB guidelines?	

#### Related Goals Increase community access routes to critical facilities, Increase the # of entities that adopt higher than NFIPevacuation routes, during and after a flooding event minimum standards Reduce the # of newly constructed vulnerable critical Develop and maintain an operational stormwater asset facilities within the existing and future 100-YR floodplain management plan Increase the # of communities participating in the National Increase the # of flood gauges (rainfall/stream) in the Flood Insurance Program Decrease the average age of FEMA Flood Insurance Rate Increase the # of entities that have multi-year drainage Maps used to define SFHAs Increase the coverage of available flood hazard data by Increase the # of entities that integrate National Weather completing studies with identified construction projects to Service and USGS Texas Water Science Center (TXWSC) address flooding hazards flood warning system information into their local capabilities to disseminate warnings Increase participation in the regional flood planning process Increase use of nature-based flood risk reduction projects Provide regional detention that could be used for water Develop a regionally coordinated warning and emergency response program that can detect the flood threat and reuse applications or as part of a floodplain management program provide timely warning of impending flood danger Increase acreage of publicly protected open space in critical Increase the amount of publicly owned land in the region flood risk areas that is reused for a beneficial public use that can be utilized for future regional stormwater infrastructure Increase outreach and education activities, specifically Increase the proficiency of floodplain managers by targeting municipal floodplain managers, hosted by Region increasing the # of them that are certified as Certified 15 RFPG and available on the website Floodplain Managers (CFM) with the Texas Floodplain Management Association Increase the use reverse 911, TV, radio, social media, and Increase participation in the Community Rating System by billboards to communicate flood warnings, evacuation encouraging Region 15 floodplain management programs routes, and shelter locations to incorporate dedicated drainage fees to implement Reduce the # of structures that have been subject to future FMEs and FMPs; incorporate noncompliance repeated flooding events through property buyouts penalties; and who regulate development in the future conditions floodplain

#### RFPG Recommended

Yes ✓ No □





Primera Action #8 FMS ID: 152000017

#### **FMS** Description

Implement early warn		areas of the jurisdiction to alert residents	of impending severe weather
Strategy Type  □ Education and Outr □ Protected Areas	reach Activities	<ul><li>☐ Regulatory and Guidance</li><li>☐ Development Standards</li></ul>	✓ Flood Preparedness Programs □ Other:
County/ Counties	Primera Cameron	Insert snip (	of Location Map here
HUC 8 HUC 12	12110208		
Study Area (sq. mi.)			
Emergency Ne Yes ✓ No □	ed		

#### Known Flood Risk

History of Flooding?	Yes ✓	No 🗆	Frequency of flooding:		
Population at Risk			# of structures inundated		
Roadways flooded	Yes □	No □	Miles inundated?		
Critical Facilities Impacted	Yes □	No $\square$	Agricultural Land impacted	Yes □	No $\square$
Notes:					

Total Cost:	\$75,000	Study Sponsor:	Primera
Non-reoccurring Non-		These are one-time costs for program development, education campaign, and	
capital Cost (include in Total		non-engineering study costs.	
above):			
Estimated year to start:	2018	Entity with Oversight	Primera
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No □
	2020	Action Plan or other plan?	
Funding Dedicated?	Yes □ No 🗸	(Potential) Source of Funding	Local Funds; HMGP

Have the flood risk and flood reduction impacts been evaluated and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and f	ıate	<b>Э</b> С
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Yes	Nο	./
Y 44 C	1/1()	v



**RFPG Recommended** 

Yes ✓ No 🗆

# **FMS**

## Flood Management Strategies Fact Sheet

	s the strategy missing sufficient data to assess whether the pro DB guidelines?	opose	ed strategy has a negative effect, per Yes ✔ No 🗆
Rel	ated Goals		
	Increase community access routes to critical facilities,		Increase the # of entities that adopt higher than NFIP-
	evacuation routes, during and after a flooding event		minimum standards
	Reduce the # of newly constructed vulnerable critical		Develop and maintain an operational stormwater asset
	facilities within the existing and future 100-YR floodplain		management plan
	Increase the # of communities participating in the National Flood Insurance Program		Increase the # of flood gauges (rainfall/stream) in the region
	Decrease the average age of FEMA Flood Insurance Rate Maps used to define SFHAs		Increase the # of entities that have multi-year drainage CIP list
	Increase the coverage of available flood hazard data by		Increase the # of entities that integrate National Weather
	completing studies with identified construction projects to		Service and USGS Texas Water Science Center (TXWSC)
	address flooding hazards		flood warning system information into their local
	· ·		capabilities to disseminate warnings
	Increase participation in the regional flood planning process		Increase use of nature-based flood risk reduction projects
	Provide regional detention that could be used for water	$\checkmark$	Develop a regionally coordinated warning and emergency
	reuse applications or as part of a floodplain management		response program that can detect the flood threat and
	program		provide timely warning of impending flood danger
	Increase acreage of publicly protected open space in critical		Increase the amount of publicly owned land in the region
	flood risk areas that is reused for a beneficial public use		that can be utilized for future regional stormwater infrastructure
	Increase outreach and education activities, specifically		Increase the proficiency of floodplain managers by
	targeting municipal floodplain managers, hosted by Region		increasing the # of them that are certified as Certified
	15 RFPG and available on the website		Floodplain Managers (CFM) with the Texas Floodplain
	To the Gard available of the Woodsto		Management Association
	Increase the use reverse 911, TV, radio, social media, and		Increase participation in the Community Rating System by
	billboards to communicate flood warnings, evacuation		encouraging Region 15 floodplain management programs
	routes, and shelter locations		to incorporate dedicated drainage fees to implement
	Reduce the # of structures that have been subject to		future FMEs and FMPs; incorporate noncompliance
	repeated flooding events through property buyouts		penalties; and who regulate development in the future
			conditions floodplain

#### Page 2 of 2





Primera Action #10 FMS ID: 152000016

## **FMS Description**

Adopt higher floodpla	iin standards such as	freeboard and cumulative substantial d	amage
Strategy Type  □ Education and Outr □ Protected Areas	reach Activities	<ul><li>✓ Regulatory and Guidance</li><li>□ Development Standards</li></ul>	<ul><li>☐ Flood Preparedness Programs</li><li>☐ Other:</li></ul>
Strategy Area City/ Cities	Primera	Insert snip	of Location Map here
County/ Counties	Cameron		
HUC 8	12110208		
HUC 12			
Study Area (sq. mi.)			
Emergency Ne Yes ✓ No □	ed		

#### **Known Flood Risk**

History of Flooding?	Yes ✓	No □	Frequency of flooding:	
Population at Risk			# of structures inundated	
Roadways flooded	Yes □	No $\square$	Miles inundated?	
Critical Facilities Impacted	Yes 🗆	No □	Agricultural Land impacted	Yes □ No □
Notes:				

Total Cost:	\$5,000	Study Sponsor:	Primera
Non-reoccurring Non-		These are one-time costs for program development, education campaign, and	
capital Cost (include in Total		non-engineering study costs.	
above):			
Estimated year to start:	2019	Entity with Oversight	Primera
Time to complete?		Included in a Hazard Mitigation	Yes ✓ No □
	2021	Action Plan or other plan?	
Funding Dedicated?	Yes □ No ✓	(Potential) Source of Funding	Local Funds; HMGP

Have the flood risk and flood reduction impacts been evaluated and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and flood reduction impacts been evaluated as the flood risk and f	ıate	<b>Э</b> С
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Yes	INIO	~



RFPG Recommended

Yes ✓ No □

## **FMS**

#### Flood Management Strategies Fact Sheet

Was the strategy missing sufficient data to assess whether the proposed strategy has a negative effect, per	Yes □	No <b>✓</b>
TWDB quidelines?		

#### Related Goals Increase community access routes to critical facilities, Increase the # of entities that adopt higher than NFIPevacuation routes, during and after a flooding event minimum standards Reduce the # of newly constructed vulnerable critical Develop and maintain an operational stormwater asset facilities within the existing and future 100-YR floodplain management plan Increase the # of communities participating in the National Increase the # of flood gauges (rainfall/stream) in the Flood Insurance Program Decrease the average age of FEMA Flood Insurance Rate Increase the # of entities that have multi-year drainage Maps used to define SFHAs Increase the coverage of available flood hazard data by Increase the # of entities that integrate National Weather completing studies with identified construction projects to Service and USGS Texas Water Science Center (TXWSC) address flooding hazards flood warning system information into their local capabilities to disseminate warnings Increase participation in the regional flood planning process Increase use of nature-based flood risk reduction projects Provide regional detention that could be used for water Develop a regionally coordinated warning and emergency response program that can detect the flood threat and reuse applications or as part of a floodplain management program provide timely warning of impending flood danger Increase acreage of publicly protected open space in critical Increase the amount of publicly owned land in the region flood risk areas that is reused for a beneficial public use that can be utilized for future regional stormwater infrastructure Increase outreach and education activities, specifically Increase the proficiency of floodplain managers by targeting municipal floodplain managers, hosted by Region increasing the # of them that are certified as Certified 15 RFPG and available on the website Floodplain Managers (CFM) with the Texas Floodplain Management Association Increase the use reverse 911, TV, radio, social media, and Increase participation in the Community Rating System by billboards to communicate flood warnings, evacuation encouraging Region 15 floodplain management programs routes, and shelter locations to incorporate dedicated drainage fees to implement Reduce the # of structures that have been subject to future FMEs and FMPs; incorporate noncompliance repeated flooding events through property buyouts penalties; and who regulate development in the future conditions floodplain



HALFF ASSOCIATES, INC. 5000 WEST MILITARY HIGHWAY SUITE 100 MCALLEN, TEXAS 78503

(956) 664-0286

WWW.HALFF.COM