Task 13 - Sponsor Requested FMEs (Municipality)

| Batch | Page | New Action Number | Old Action Number (To be removed) | Туре | Sponsor | Project | Notes | TC Rec (Y/N) | Tech Committee Rec Date | RFPG Rec (Y/N) | RFPG Rec Date |
|-------|------|-------------------|--------------------------------------|------|-----------------------------|--|---------------------------|-----------------|----------------------------|-------------------|------------------|
| | | 101000060 | 101000060 | NA | Hays (Municipality) | City of Hays Little Bear Creek | Sponsor requested removal | | | | |
| 2 | 2 | 101000203 | 101000203 | FME | Austin (Municipality) | Highland Hills Crossing Improvements Project | Revised Sponsor only | | | | |
| 2 | 3 | 101000215 | | FME | Bastrop (Municipality) | Hill, Pecan, & Pine Street Drainage Improvements (DMP GB-04) | New FME | | | | |
| 2 | 4 | 101000216 | | FME | Bastrop (Municipality) | Local Storm Drain Improvements Near Piney Creek (DMP PC- 04) | New FME | | | | |
| 2 | 5 | 101000217 | | FME | Bastrop (Municipality) | Pecan Street Bypass & Pond Diversion (DMP PC-05) | New FME | | | | |
| 2 | 6 | 101000218 | | FME | Bastrop (Municipality) | Pecan, Beech, & Haysel Improvements to Gills Branch (DMP GB 05) | New FME | | | | |
| 2 | 7 | 101000219 | | FME | Bastrop (Municipality) | Bastrop CCTV Storm Drain Evaluation (DMP COB-02) | New FME | | | | |
| 2 | 8 | 101000220 | | FME | Bastrop (Municipality) | Water, Spring, & Cedar Street Drainage Improvements (DMP GB-03) | New FME | | | | |
| 2 | 9 | 101000226 | | FME | Hays (Municipality) | City of Hays Drainage Study | New FME | | | | |
| 2 | 10 | 101000229 | | FME | Needville (Municipality) | Wastewater Treatment Plant Floodproofing | New FME | | | | |
| 2 | 11 | 101000230 | | FME | Needville (Municipality) | Fairchild Creek Drainage Mitigation Study | New FME | | | | |
| 2 | 12 | 101000231 | | FME | Pflugerville (Municipality) | Caldwell Elementary Improvements at Upper Gilleland Creek (DMP GC-01) | New FME | | | | |
| 2 | 13 | 101000232 | | FME | Pflugerville (Municipality) | Pflugerville Storm Drain CCTV Evaluation (DMP Pf-03) | New FME | | | | |
| 2 | 14 | 101000233 | | FME | Pflugerville (Municipality) | Hidden Lake Drive Improvements at Wilbarger Creek Tributary 200 (DMP WC-02) | New FME | | | | |
| 2 | 15 | 101000234 | | FME | Pflugerville (Municipality) | Kennemer Drive Improvements at Wilbarger Creek Tributary 200 (DMP WC-05) | New FME | | | | |
| 2 | 16 | 101000235 | | FME | Pflugerville (Municipality) | (DMP GC-02) | New FME | | | | |
| 2 | 17 | 101000237 | | FME | Pflugerville (Municipality) | Railroad Avenue Improvements at Upper Gilleland Creek (DMP GC-04) | | | | | |
| 2 | 18 | 101000238 | | FME | Pflugerville (Municipality) | Swenson Farms Improvements at Upper Gilleland Creek (DMP GC-03) | New FME | | | | |
| 2 | 19 | 101000239 | | FME | Pflugerville (Municipality) | Weiss Lane Improvements at Wilbarger Creek (DMP WC-01) | New FME | | | | |
| 2 | 20 | 101000246 | | FME | Bastrop (Municipality) | Riverwood Drive Improvements at Piney Creek (DMP PC-02) | New FME | | | | |

| | REGIONAL FLOOD |
|-----------------------|---------------------------------|
| ID# 101000203 | PLANNING GROUP |
| Commitment 🖌 Yes 📃 No | REGION 10 |
| Feasibility study | Preliminary project engineering |
| | |
| 2222 | |
| | |
| | T T |
| | Abercrombie |
| | Commitment 🖌 Yes 📃 No |

Flood Risk Description

The Highland Hills crossing is inundated by small, frequent, storm events (less than 2-year event) leading to unsafe conditions for motorists who need to use this roadway for neighborhood ingress/egress. Existing risk factors are based on available data and will be better defined as part of the study. Study results will include detailed assessments of the potential risk and potential flood risk reduction to be used in evaluating the project.

| Population at risk | 8 | Structures at risk | 3 (| Critical facilities at risk (r | number) C |) |
|--------------------|-------------------|--------------------|--------------------------|--------------------------------|-----------|---|
| • | | | | | | |
| Farm/Ranch land ir | npacted (acres) 1 | Ro | oadway(s) impacted (mile | es) 0.02 | | |
| - | | | , | • | | |

Scope of Study

Update existing study to evaluate upgrading the hydraulic capacity of the crossing to reduce the frequency and depth of inundation and improve public safety. Study will update existing hydrologic and hydraulic models (with Atlas 14 rainfall) as needed to refine preliminary design and provide additional information needed to meet TWDB requirements for a flood mitigation project including verifying no adverse impacts, updating the cost estimate and providing a benefit-cost-analysis, and updating/verifying there are no potential constraints (environmental, utility conflicts, right-of-way needs, and constructability) that will prevent implementation.

Related Goal(s)

6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways (e.g., low-water crossings, irrigation canals).

Estimated Study Cost

Cost \$150,000

| | | | | DI ANNING COOL |
|--|---------------------------------------|--------------------|-------------------|-----------------------------|
| Title Hill, Pecan, & Pine Street Drainage | Improvements (DMP GB-04) | ID# ¹⁰¹ | 1000215 | PLANNING GROU |
| Sponsor (note if City or County) | strop (Municipality) | Commitment | Yes No | REGION 10 |
| Study Type | | | | |
| Emergency preparedness | Floodplain modeling, mapping and risk | assessment | Feasibility study | Preliminary project enginee |
| Other | | | | |
| | | | | |
| Problem Area | | | | |
| City Bastrop | County Bastrop | | N ST N ST | PARM ST |
| Watershed name(s) Piney Creek-Cold | 18 | Colorado River | PECA | |
| | | THE PART OF THE | | CHESTINUT, ST |
| Tributary(ies) Gills Branch | | OLD AUSS | | WADNUT |
| HUC#(s) 1209030102 | Stream miles (est.) NA | | | |
| Drainage area: square miles, est 1 | or acreage, est | | | |
| Social Vulnerability Index (SVI) 0.59 | 79, 0.3302 | | n | |
| (SVI score 0.0 indicates least vulnerable; | | HASLER ST | | Gills Branch |
| Other | | 一面自己的 | Jeres / Dy | |

Flood Risk Description

Hill, Pecan, Emile, Pine, Jefferson, and other streets in the surrounding residential area experience significant flooding due to the low-lying nature of the downtown Bastrop terrain. To reduce ponding and flooding during rain events, an upgraded drainage system is proposed to convey runoff into Gills Branch. Approximately 160 properties will benefit from the upgraded stormwater system, reducing private property flooding concerns. These improvements should consider improvements in other portions of the Gills Branch watershed. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

| | Population at risk | 299 | Structures at risk | 83 | Critical facilities at risk (n | number) ⁰ | |
|---|--------------------|-------------------|--------------------|----------------------|--------------------------------|----------------------|--|
| Farm/Ranch land impacted (acres) 0 Roadway(s) impacted (miles) 1.54 | | | | | | | |
| | Farm/Ranch land in | npacted (acres) 0 | Ro | adway(s) impacted (m | iles) ^{1.54} | | |

Scope of Study

Conduct a study to evaluate proposed improvements. Study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall), limited field survey and geotechnical investigations, preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimates and a benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability).

Potential improvements include approximately 5,940 feet of storm drain to replace the existing undersized storm drain system. The parallel pipes along Jefferson and Pine Strees will be cut, plugged, and abandoned and existing flow will be directed through the new, larger storm drain system. The new system will connect to the existing Hill Street channel and then drain into Gills Branch. The 2023 City of Bastrop Drainage Master Plan estimated potential costs of improvements totaling approximately \$8.7 million.

Related Goal(s)

3.2 Increase the number of entities that have evaluated priority flood risk areas. 6.1 Reduce the number of structures and critical facilities that are at high risk through the implementation of structural flood mitigation projects. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways.

Estimated Study Cost

Cost \$600,000

Lower Colorado-Lavaca

REGIONAL FLOOD

BASTROP

| Title Local Storm Drain Improvements Near P | Piney Creek (DMP PC-04) | ID# | 101000216 | PLANNING GROUP |
|--|--------------------------------------|---------------|-----------------|--------------------------------------|
| Sponsor (note if City or County) Bastrop (| Municipality) | Commitment | Yes No | REGION 10 |
| Study Type | | | | |
| Emergency preparedness Floo | odplain modeling, mapping and risk a | ssessment | Feasibility stu | dy 🖌 Preliminary project engineering |
| Other | | | | |
| | | | | |
| Problem Area | | | | |
| City Bastrop | County Bastrop | | | EL DIS |
| Watershed name(s) Piney Creek-Colorado I | River | and the state | S A | |
| | 1 | | Simol | |
| Tributary(ies) Piney Creek | R | EIDS | | MESQUITE |
| HUC#(s) 1209030102 s | Stream miles (est.) 0.06 | END | 7 | |
| Drainage area: square miles, est 1 | or acreage, est | | MAGNOLIA RD | |
| Social Vulnerability Index (SVI) 0.5979 | | | Piney Creek | TRUNDEN ST |
| (SVI score 0.0 indicates least vulnerable; 1.0 inc | licates most vulnerable.) | BASTROP | 0 N S | |
| Other | | | Survey of the | |
| | G | | | H A WTH O RINE ST |

Flood Risk Description

Streets and residential area experience significant flooding due to the low-lying nature of the downtown Bastrop terrain. To reduce ponding and flooding during rain events, a new stormwater system is proposed to redirect runoff into the Piney Creek. Approximately 115 properties will benefit from the upgraded stormwater system, reducing private property flooding concerns. These improvements should consider improvements in other portions of the Piney Creek watershed. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

| Population at risk | 81 | Structures at risk | 92 | Critical facilities at risk (r | number) ⁰ |
|--------------------|------------------------------|--------------------|-------------------------|--------------------------------|----------------------|
| | | | | | |
| Farm/Ranch land in | npacted (acres) ¹ | R | oadway(s) impacted (mil | les) ^{1.46} | |
| | | | ····· | | |

Scope of Study

Conduct a study to evaluate proposed improvements. Study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall), limited field survey and geotechnical investigations, preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimates and a benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability).

Potential improvements include approximately 2,930 ft of storm drain to follow the Main Street right-of-way and convey water directly into the creek, bypassing the existing storm drain system to the east, a 36-in pipe extending approximately 1,580-ft, from Linden Street to Mesquite Street, and two storm drain inlets every 300-ft to capture runoff. Existing pipes following Mesquite and Linden Steets will be cut, plugged, and abandoned to reduce flow through the existing storm drain system. Drainage at Mesquite and Linden Street will be captured and conveyed through the Main Street system. These improvements are tied to the FME for Pecan Street Bypass & Pond Diversion. The 2023 City of Bastrop Drainage Master Plan estimated potential costs of improvements totaling approximately \$5.1 million.

Related Goal(s)

3.2 Increase the number of entities that have evaluated priority flood risk areas. 6.1 Reduce the number of structures and critical facilities that are at high risk through the implementation of structural flood mitigation projects. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways.

Estimated Study Cost

Cost \$360,000

Lower Colorado-Lavaca

REGIONAL FLOOD

| Title Pecan Street Bypass & Pond I | Diversion (DMP PC-05) | ID# ¹⁰¹⁰⁰⁰²¹⁷ | PLANNING GROUP |
|------------------------------------|----------------------------------|--|---|
| Sponsor (note if City or County) | Bastrop (Municipality) | Commitment Yes No | REGION 10 |
| Study Type | | | |
| Emergency preparedness | Floodplain modeling, mapping and | l risk assessment 🛛 📕 Feasibility stud | y 🖌 Preliminary project engineering |
| Other | | | |
| | | | |
| Problem Area | | | |
| City Bastrop | County Bastrop | | A A A A A A A A A A A A A A A A A A A |
| | -Colorado River | | |
| | | | The second of the second se |
| Tributary(ies) Piney Creek | | MESQUITE | a la |
| | | BENID | The second se |

 HUC#(s)
 1209030102
 Stream miles (est.)
 NA

 Drainage area: square miles, est
 1
 or acreage, est

Social Vulnerability Index (SVI) 0.5979

(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)

Other



Lower Colorado-Lavaca

Flood Risk Description

Streets and residential area experience significant flooding due to the low-lying nature of the downtown Bastrop terrain. To reduce ponding and flooding during rain events, a Pecan Street bypass is proposed to redirect runoff into the Piney Creek. Approximately 135 properties will benefit from the new stormwater system, reducing private property flooding concerns. These improvements should consider improvements in other portions of the Piney Creek watershed. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

| opulation at risk ³⁴ Structures at risk ⁷³ Critical facilities at risk (number) ⁰ | | | | | | | |
|--|---|-----------------|------------------------|--------|---------------------------|---------|---|
| | | | | | | | |
| | Population at risk ³⁴ | Structures at r | isk ⁷³ | Crit | ical facilities at risk (| number) | 0 |
| | · · · · · · · · · · · · · · · · · · · | | | | | , | |
| Farm/Ranch land impacted (acres) ⁴ Roadway(s) impacted (miles) ^{0.89} | Farm/Ranch land impacted (acres) ⁴ | 1 | Roadway(s) impacted (r | niles) | 0.89 | | |

Scope of Study

Conduct a study to evaluate proposed improvements. Study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall), limited field survey and geotechnical investigations, preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimates and a benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability).

Potential improvements include a 1,600 ft diversion from the Hill/Linden pond, approximately 8,900 ft of storm drain along the Pecan Street right-of-way, and a 250 ft pipe to collect runoff between Hawthorne and Linden Street. Existing pipes on Linden and Laurel Streets will be cut, plugged, and abandoned to reduce flow through the existing storm drain system. These improvements are tied to the FMEs for Pecan Street Bypass & Pond Diversion as well as Local Storm Drain Improvements near Piney Creek. The 2023 City of Bastrop Drainage Master Plan estimated potential costs of improvements totaling approximately \$23.7 million.

Related Goal(s)

3.2 Increase the number of entities that have evaluated priority flood risk areas. 6.1 Reduce the number of structures and critical facilities that are at high risk through the implementation of structural flood mitigation projects. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways.

Estimated Study Cost

Cost \$1,700,000

Lower Colorado-Lavaca Flood Management Evaluation (FME) STUDY **REGIONAL FLOOD** ANNING GROUP. Title Pecan, Beech, & Haysel Improvements to Gills Branch (DMP GB-05) ID# 101000218 Sponsor (note if City or County) Bastrop (Municipality) **REGION 10** Commitment Yes No Study Type Feasibility study Preliminary project engineering Emergency preparedness Floodplain modeling, mapping and risk assessment Other Problem Area County Bastrop City Bastrop Watershed name(s) Piney Creek-Colorado River Tributary(ies) Gills Branch HUC#(s) 1209030102 Stream miles (est.) NA or acreage, est Drainage area: square miles, est Social Vulnerability Index (SVI) 0.5979 (SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.) Other

Flood Risk Description

Haysel, Farm, Beech, Pecan, and other streets in the surrounding residential area experience significant flooding due to the low-lying nature of the downtown Bastrop terrain. To reduce ponding and flooding during rain events, an upgraded system is proposed to redirect runoff into Gills Branch. Approximately 180 properties will benefit from the upgraded stormwater system, reducing private property flooding concerns. These improvements should consider improvements in other portions of the Gills Branch watershed. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

| | | | | | - | |
|------------------------------|--------------------|--------------------|-----------------------|---------------------------------|--------------------|--|
| Population at risk 990 | | Structures at risk | 60 | Critical facilities at risk (nu | mber) ⁰ | |
| | | | | | , | |
| Farm/Ranch land impacted (ac | cres) ⁰ | Ro | oadway(s) impacted (m | iles) ^{1.10} | | |
| | | | | | | |

Scope of Study

Conduct a study to evaluate proposed improvements. Study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall), limited field survey and geotechnical investigations, preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimates and a benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability). Potential improvements include 5,520 feet of storm drain to replace the existing undersized system. The existing pipe conveying flow through the Mina Elementary campus will

be cut, plugged, and aban- doned, and flow will be redirected from Pecan Street through the Hill and Farm Street rights-of-way, eventually rejoining the Haysel Street trunkline. The 2023 City of Bastrop Drainage Master Plan estimated potential costs of improvements totaling approximately \$20.6 million.

Related Goal(s)

3.2 Increase the number of entities that have evaluated priority flood risk areas. 6.1 Reduce the number of structures and critical facilities that are at high risk through the implementation of structural flood mitigation projects. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways.

Estimated Study Cost

Cost \$1,400,000

| Title E | Bastrop CCTV Storm Drain Ev | aluation (DMP COB-02) | ID# 1 | 01000219 | PLANNING GROUP |
|---------|-----------------------------|--|------------|-------------------|---------------------------------|
| Sponso | or (note if City or County) | Bastrop (Municipality) | Commitment | Yes No | REGION 10 |
| Stud | ly Туре | | | | |
| En | nergency preparedness | 📕 Floodplain modeling, mapping and risk as | ssessment | Feasibility study | Preliminary project engineering |
| Oth | her | | | | |
| | | | | | |

Problem Area

| City Bastrop | County Bastrop | Piney Creek |
|--|-------------------------|-----------------------------------|
| Watershed name(s) Piney Creek-Color | | MES GUITE |
| | | Colorado River |
| Tributary(ies) Gills Branch, Piney Cree | k | |
| HUC#(s) 1209030102 | Stream miles (est.) 1.9 | |
| Drainage area: square miles, est 1.7 | | CCED AllessI Gills Branch |
| Social Vulnerability Index (SVI) | 79 | CHESTINUT ST |
| (SVI score 0.0 indicates least vulnerable; 1 | | BASTROP C |
| Other | | Pine Forest Crown 2 |
| | | Spring Branch Pine Forest CreekTB |

Flood Risk Description

The existing storm drain system was surveyed, to the extent possible, within the city limits and right of way, during Spring of 2022. Survey points included storm drain inlets, manhole elevations, pipe flowlines and dimensions, and outfall flow lines and dimensions. The survey team captured approximately 360 storm drain inlets, 80 manholes, and 35 outfalls. A storm drain database was developed for the City of Bastrop to map and detail existing storm drain infrastructure within city limits. There is a need to assess the condition and functionality of the storm drainage system to develop a maintenance and improvement plan.

| Population at risk 3,060 Structures at risk 775 Critical facilities at risk (number) 3 | |
|--|--|
| Farm/Ranch land impacted (acres) 116 Roadway(s) impacted (miles) 9.13 | |

Scope of Study

Conduct a study to assess the condition of the existing storm drain infrastructure within the urban core of the City of Bastrop. The study should utilize closed-circuit television (CCTV) inspection. Inspection will analyze approximately 17,000 feet of storm drain infrastructure. Evaluation will allow the design consultant to develop a storm drain maintenance and improvement plan.

Related Goal(s)

3.2 Increase the number of entities that have evaluated priority flood risk areas. 6.1 Reduce the number of structures and critical facilities that are at high risk through the implementation of structural flood mitigation projects. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways.

Estimated Study Cost

Cost \$350,000

Lower Colorado-Lavaca REGIONAL FLOOD

Flood Management Evaluation (FME) study Lower Colorado-Lavaca Title Water, Spring, & Cedar Street Drainage Improvements (DMP GB-03) D# 101000220 Sponsor (note if City or County) Bastrop (Municipality) Commitment Yes No Study Type Emergency preparedness Floodplain modeling, mapping and risk assessment Feasibility study Image: Preliminary project engineering

Problem Area

| City Bastrop | County Bastrop | BEND | | |
|--|---------------------------|---------|----------------|-----------------------------|
| Watershed name(s) Piney Creek-Colorado | River | RIVER | Piney Creek ST | |
| | | 1000 OF | HA | ST ST |
| Tributary(ies) Gills Branch | | | | CEDAR ST |
| HUC#(s) 1209030102 | Stream miles (est.) | | | |
| Drainage area: square miles, est 1 | or acreage, est | BASTROP | | Gills Branch |
| Social Vulnerability Index (SVI) 0.5979 | | | | C'HESTNUT ST Pine Forest |
| (SVI score 0.0 indicates least vulnerable; 1.0 ind | dicates most vulnerable.) | | C AN | Creek |
| Other | | 8 | Colorado River | Pino Foresi Greek 15 |

Flood Risk Description

Water, Spring, Cedar, and other streets in the surrounding residential area experience significant flooding due to the low-lying nature of the downtown Bastrop terrain. To reduce ponding and flooding during rain events, an upgraded system is proposed to redirect runoff into the Colorado River. Approximately 260 properties will benefit from the upgraded stormwater system, reducing private property flooding concerns. These improvements should consider improvements in other portions of the Gills Branch watershed. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

| Population at risk | 1,205 | Structures at risk ¹ | 140 Cri | itical facilities at risk (n | number) | 1 |
|--------------------|-----------------|---------------------------------|--------------------------|------------------------------|---------|---|
| • | 1 | | | 1 70 | | |
| Farm/Ranch land in | npacted (acres) | Roa | dway(s) impacted (miles) | 1.79 | | |
| - | | | | | | |

Scope of Study

Conduct a study to evaluate proposed improvements. Study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall), limited field survey and geotechnical investigations, preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimates and a benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability). Potential improvements include 17,100 feet of storm drain to replace the existing undersized system. Pipes at Beech and Jefferson will be cut, plugged, and abandoned and flow

will be directed through the new storm drain system. Existing laterals extending down Beech, Buttonwood, & Elm St will remain unchanged. The 2023 City of Bastrop Drainage Master Plan estimated potential costs of improvements totaling approximately \$25.7 million.

Related Goal(s)

3.2 Increase the number of entities that have evaluated priority flood risk areas. 6.1 Reduce the number of structures and critical facilities that are at high risk through the implementation of structural flood mitigation projects. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways.

Estimated Study Cost

Cost \$1,800,000

| Title City of Hays Drainage Master | Plan Update | ID# | 101000226 | PLANNING GROUP |
|------------------------------------|---|------------|---------------------|---------------------------------|
| Sponsor (note if City or County) | Hays (Municipality) | Commitment | Yes No | REGION 10 |
| Study Type | | | | |
| Emergency preparedness | 🖌 Floodplain modeling, mapping and risk a | ssessment | ✓ Feasibility study | Preliminary project engineering |
| Other | | | | |

Problem Area

| | | Little Bear | r Creek |
|--|--|--------------------------------------|---------------------------------------|
| City Hays | County Hays | Little Bear Creek | |
| /atershed name(s) Onion Creek | -Colorado River | Tributary 1 | |
| | | | CHAPARRAL |
| L'ul D O h. I | internet in the second se | Little Bear Creek | RD |
| Tributary(ies) | ittle Bear Creek Tributary 1A | States 20 | Bear |
| HUC#(s) 1209020504 | Stream miles (est.) 10.33 | AUSTIN | dian of |
| Drainage area: square miles, est | 4.94 or acreage, est | Liffle Bear Creek Tributary 2A | HAT? |
| | 0.013, 0.0019, 0.0284 | | |
| (SVI score 0.0 indicates least vulnera | able; 1.0 indicates most vulnerable.) | | S S S S S S S S S S S S S S S S S S S |
| Other Need identification of risk t | hrough floodplain study, flood risk reduction | | |
| analysis, and protection of | water quality for water supply. | O tel | BUDA |
| | | | |

Flood Risk Description

The City of Hays is located between two tributaries of Little Bear Creek. Historically, this area has been subject to major flooding events resulting in a threat to human and animal life and extensive property/infrastructure damage. Compounding area flooding problems relative to the City of Hays is the recent widening of FM 1626 from a two lane country road to a five lane transportation corridor; completion of SH 45 Southwest; increased upstream impervious cover due to major single family/multi-housing residential development and commercial/retail development. Additionally, several proposed/planned major residential and commercial development will significantly increase population density and impervious cover in the watersheds located upstream from the City of Hays. Potential increases in flood risk threaten the City of Hays and thousands of people sole source drinking water supply derived from the Barton Springs Segment of the Edwards Aquifer. Water quality is a concern as a large portion of the Little Bear Creek Watershed is either located over the Barton Springs-Edwards Aquifer recharge, transition or contributing zones. The City of Hays in 2017 conducted a watershed study to assess flood risk and to prepare a drainage master plan for areas within the City's jurisdiction. This master plan needs to be updated to reflect changed conditions as described above, as well as to incorporate updated Atlas 14 rainfall values.

| Population at risk ¹⁰³ | Structures at r | sk ¹¹⁷ | Critical facilities at risk (number) | 0 |
|-----------------------------------|-----------------|-------------------------|--------------------------------------|---|
| Farm/Ranch land impacted (acres) | 255 | Roadway(s) impacted (mi | iles) ^{1.31} | |

Scope of Study

Update information and data used to develop the 2017 drainage master plan. Leverage the Atlas 14 hydrologic/hydraulic models for Little Bear Creek and Little Bear Creek Tributary 1A to assess riverine flood risk and exposure for the 10-, 25-, 100-, and 500-year flood events. Assess local drainage patterns using Atlas 14 rainfall data to identify potential local flood exposure in the City and ETJ areas. Identify priority flood risk areas and for such areas identify, evaluate, and recommend structural and non-structural flood risk reduction measures. Alternatives analysis to include potential negative upstream and/or downstream impacts, environmental impacts, cost and benefit analysis for risk reduction measures, and potential adverse impacts and/or benefits associated with groundwater recharge and drinking water supply.

Related Goal(s)

3.1 Increase the number of entities that have updated watershed models and floodplain maps to reflect current conditions, including as applicable Atlas 14 (Volume 11) revised rainfall data. 5.1/6.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss.

Estimated Study Cost

Cost \$200,000

Lower Colorado-Lavaca

REGIONAL FLOOD

| Flood Manageme | ent Evaluatio | on (FME) | STUDY | Lower Colorado-Lavaca REGIONAL FLOOD |
|--|-------------------------------|-------------------|-------------------|---|
| Title Needville Wastewater Treatment | Plant Floodproofing | ID# | 101000229 | PLANNING GROUP |
| Sponsor (note if City or County) City of | Needville | Commitment | Yes No | REGION 10 |
| Study Type Emergency preparedness Flo Other | odplain modeling, mapping and | l risk assessment | Feasibility study | Preliminary project engineering |
| Problem Area | | | | |
| City Needville | County Fort Bend | Inse | rt locatio | n map here |
| Watershed name(s) Cedar Creek, San | Bernard Watershed | intee | i lo callo | |
| | | | | |
| Tributary(ies) Buffalo Creek | | | | |
| HUC#(s) 12090401 | Stream miles (est.) 1.836 | | | |
| Drainage area: square miles, est 1.17 | or acreage, est 750 | | | |
| Social Vulnerability Index (SVI) TBD (SVI score 0.0 indicates least vulnerable; 1.0 ind | dicates most vulnerable.) | | | |
| Other Watershed Study | | | | |
| Flood Risk Description | | | | |
| T | | | | |

The plant is located adjacent to Buffalo creek that runs through the City of Needville. This area hasn't been studied in detail, but as a critical facility further study is recommended to assess risk of flood from Buffalo Creek. There were no reported loss of service events in initial data gathering. The results of the study will provide additional insight into existing flood risk indicators to evaluate projects for future flood planning cycles.

| Population at risk | TBD | Structures at | risk ¹ | Criti | cal facilities at risk (| number) | 1 |
|--------------------|-----------------|---------------|--|--------|--------------------------|---------|---|
| • | | | | | • • • • • • • • • | | |
| Farm/Ranch land ir | npacted (acres) | TBD | Roadway(s) impacted (m | niles) | TBD | | |
| | | | ······································ | | | | |

Scope of Study

The flood risk study of the wastewater treatment plant area will include hydrologic and hydraulic modeling (with Atlas 14 rainfall) to identify priority flood risk areas, preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimates and a benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability). This information will allow for a better understanding of high risk areas and future potential projects.

Related Goal(s)

3.2 Increase the number of entities that have evaluated priority flood risk areas and flood risk reduction measures (e.g., alternatives analysis and preliminary engineering). 6.1 Reduce the number of structures and critical facilities that are at high risk of repetitive loss through the

Estimated Study Cost

Cost TBD

| Flood Management Evaluation | (FME) STUDY | Lower Colorado-Lavaca REGIONAL FLOOD |
|--|---------------------------------|---|
| Title Fairchild Creek Drainage Mitigation Study | ID# 101000230 | PLANNING GROUP |
| Sponsor (note if City or County) City of Needville | Commitment Yes No | REGION 10 |
| Study Type Emergency preparedness ✓ Floodplain modeling, mapping and risk Other | Kassessment 🖌 Feasibility study | Preliminary project engineering |
| Problem Area City Needville County Fort Bend | Insert location | n map here |
| Watershed name(s) San Bernard, Lower Brazos Watersheds Tributary(ies) Fairchild Creek, Cedar Creek, Buffalo Creek HUC#(s) 12090401; 12070104 Stream miles (est.) TBD Drainage area: square miles, est 15.625 or acreage, est 10,000 Social Vulnerability Index (SVI) TBD (SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.) Other Multi-Watershed Study Image: Study Image: Study Image: Study | | |
| Flood Risk Description | | |

The southwest portion of the City of Needville and its extraterritorial jurisdiction has been defined as a major flooding area for the City. Portions of the Buffalo Creek watershed have been interconnected with an extension of Fairchilds Creek. Based on preliminary drainage investigations, it appears that this interconnection may contribute to flooding in Needville. Further study is required to understand existing flood risk indicators is required to develop solutions for this problematic flood prone area of the City.

| Population at risk 3000 | Structures at | risk 1000 (| Critical facilities at risk (nu | mber) ³ |
|---------------------------------|---------------|---------------------------|---------------------------------|--------------------|
| Farm/Ranch land impacted (acres | TBD | Roadway(s) impacted (mile | es) TBD | |

Scope of Study

This study will include hydrologic and hydraulic analysis (with Atlas 14 rainfall) to assess the existing conditions flooding patterns created by the two creeks across the City problem areas. Additionally, preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimates and a benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability) will also be considered. This information will allow for a better understanding of high risk areas and future potential projects.

Related Goal(s)

6.1 Reduce the number of structures and critical facilities that are at high risk of repetitive loss through the implementation of structural flood mitigation projects. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways (e.g., low-water crossings, invitation accord

Estimated Study Cost

Cost TBD

Lower Colorado-Lavaca Flood Management Evaluation (FME) STUDY **REGIONAL FLOOD** ANNING GROUP. Title Caldwell Elementary Improvements at Upper Gilleland Creek (DMP GC-01) ID# 101000231 Sponsor (note if City or County) Pflugerville (Municipality) Commitment Yes No Study Type Feasibility study Preliminary project engineering Emergency preparedness Floodplain modeling, mapping and risk assessment Other Problem Area ROUND ROCK City Pflugerville County Travis Willbarger Creek-Colorado River PFLUGERVILLE Tributary(ies) Gilleland Creek HUC#(s) 1209030101 1.51 Stream miles (est.) Drainage area: square miles, est 4.14 or acreage, est Social Vulnerability Index (SVI) 0.722, 0.2405, 0.1756, 0.3933 (SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.) Other

Flood Risk Description

Caldwell Elementatry, multiple streets and residential areas experience significant flooding from Gilleland Creek. The proposed design removes Caldwell Elementary from the 100-year floodplain, prevents Fitzgerald Lane from overtopping during the 100-year storm event, and reduces flood risk for 205 homes. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

| | Population at risk ⁴⁰ | | Structures at risk ¹⁶ | Crit | ical facilities at risk (| number) | 0 |
|--|----------------------------------|------|----------------------------------|---------|---------------------------|---------|---|
| Farm/Ranch land impacted (acres) ²⁷ Roadway(s) impacted (miles) ^{0.39} | | | | | | | |
| | Farm/Ranch land impacted (acres |) 27 | Roadway(s) impacted (| (miles) | 0.39 | | |

Scope of Study

Conduct a study to evaluate proposed improvements. Study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall), limited field survey and geotechnical investigations, preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimates and a benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability). Potential improvements include raising the Fitzgerald Lane profile to an elevation of 777 feet, 1,270 linear feet of channel improvements, and a 2,280-foot berm on the eastern border of Gilleland Creek. The 2022 City of Pflugerville Drainage Master Plan estimated potential costs of improvements totaling approximately \$9.7 million.

Related Goal(s)

3.2 Increase the number of entities that have evaluated priority flood risk areas. 6.1 Reduce the number of structures and critical facilities that are at high risk through the implementation of structural flood mitigation projects. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways.

Estimated Study Cost

Cost \$680,000

| | | | | PLANNING GROUP |
|-------------------------------------|---|-------------------|-------------------|---------------------------------|
| Title Pflugerville Storm Drain CCTV | 'Evaluation (DMP Pf-03) | ID# ¹⁰ | 01000232 | PLANNING GROUP |
| Sponsor (note if City or County) | Pflugerville (Municipality) | Commitment | Yes No | REGION 10 |
| Study Type | | | | |
| Emergency preparedness | 📕 Floodplain modeling, mapping and risk a | ssessment | Feasibility study | Preliminary project engineering |
| Other | | | | |

Problem Area

| City Pflugerville | County Travis |
|--|---------------------------------------|
| Watershed name(s) Willbarger C | Creek-Colorado River |
| | |
| Tributary(ies) Gilleland Creek, Wi | ilbarger Creek |
| HUC#(s) 1209030101 | Stream miles (est.) 0.57 |
| Drainage area: square miles, est | |
| Social Vulnerability Index (SVI) | 0.4761, 0.2555, 0.0485 |
| (SVI score 0.0 indicates least vulnera | able; 1.0 indicates most vulnerable.) |
| Other | |
| | |

Flood Risk Description

The City of Pflugerville maintains a storm drain system database to map, size and identify existing storm drain infrastructure within city limits. The geospatial data includes detention ponds, drainge structures, stormwater inlets, lines, manholes, and outfalls. There is a need to assess the condition and functionality of the storm drainage system to develop a maintenance and improvement plan.

| Population at risk 8 | Structures at i | risk ¹⁸ | Critical facilities at risk (r | number) ⁰ |
|----------------------------------|-----------------|------------------------|--------------------------------|----------------------|
| Farm/Ranch land impacted (acres) | 8 | Roadway(s) impacted (n | niles) ^{0.04} | |

Scope of Study

Conduct a study to assess the condition of the existing storm drain infrastructure within the downtown business district of the City of Pflugerville. The study should utilize closed-circuit television (CCTV) inspection. Inspection will analyze approximately 11,000 feet of storm drain infrastructure. Evaluation will allow the design consultant to develop a storm drain maintenance and improvement plan.

Related Goal(s)

3.2 Increase the number of entities that have evaluated priority flood risk areas. 6.1 Reduce the number of structures and critical facilities that are at high risk through the implementation of structural flood mitigation projects. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways.

Estimated Study Cost

Cost \$250,000

Lower Colorado-Lavaca

| Flood Managem | | | STUDY 101000233 | Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP |
|--|-----------------------------------|-----------------------------|---------------------------|---|
| Sponsor (note if City or County) Pfluger | <i>v</i> ille (Municipality) | Commitment | Yes No | REGION 10 |
| Study Type Emergency preparedness File Other | oodplain modeling, mapping and ri | isk assessment | Feasibility study | Preliminary project engineering |
| Problem Area City Pflugerville | County Travis | | | |
| Watershed name(s) Willbarger Creek-Col | | | Pillugerville | WILBARGER CREEK |
| Tributary(ies) Wilbarger Creek Tributary 2 HUC#(s) 1209030101 | 00 Stream miles (est.) 0.15 | | | |
| Drainage area: square miles, est 3.79 | or acreage, est | | | |
| Social Vulnerability Index (SVI) 0.0245 (SVI score 0.0 indicates least vulnerable; 1.0 in | dicates most vulnerable.) | | HIDDER'S CALL | WILBARGER CREEK |
| Other | | WILBARGER GREET TRIB 196 | | 1 Dr. |

Flood Risk Description

Hidden Lake Drive over Wilbarger Creek Tributary 200 currently floods during the 10-year storm event. The proposed improvement allows Hidden Lake Drive to pass the 100-year event. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

| Population at risk | 0 | Structures at risk | 0 Crit | ical facilities at risk (| number) | 0 |
|--------------------|------------------|--------------------|---|---------------------------|---------|---|
| • | - | | | | | |
| Farm/Ranch land im | pacted (acres) / | Roa | adway(s) impacted (miles) | 0.11 | | |
| | | | · · · / · · · · · · · · · · · · · · · · | | | |

Scope of Study

Conduct a study to evaluate proposed improvements. Study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall), limited field survey and geotechnical investigations, preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimates and a benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability). Potential improvements include replacing the fourteen 10' x 5' existing culverts with a 200-foot bridge span. Proposed improvements also include raising Hidden Lake Drive to an elevation of 644 feet, 3 feet higher than the current elevation. The 2022 City of Pflugerville Drainage Master Plan estimated potential costs of improvements totaling approximately \$4 million.

Related Goal(s)

3.2 Increase the number of entities that have evaluated priority flood risk areas. 6.1 Reduce the number of structures and critical facilities that are at high risk through the implementation of structural flood mitigation projects. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways.

Estimated Study Cost

Cost \$280,000

| Flood Management Evaluation | (FME) STUDY | Lower Colorado-Lavaca REGIONAL FLOOD |
|--|---|---|
| Kennemer Drive Improvements at Wilbarger Creek Tributary 200 (DMP WC-05) | ID# 101000234 | PLANNING GROUP |
| Sponsor (note if City or County) Pflugerville (Municipality) | Commitment Yes No | REGION 10 |
| Study Type Emergency preparedness Floodplain modeling, mapping and risk Other | assessment Feasibility study | Preliminary project engineering |
| Problem Area City Pflugerville County Travis Watershed name(s) Willbarger Creek-Colorado River | PFLUGER VILLE | |
| Tributary(ies) Wilbarger Creek Tributary 200 HUC#(s) 1209030101 Stream miles (est.) 0.31 Drainage area: square miles, est 2.46 or acreage, est Social Vulnerability Index (SVI) 0.0955 (SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.) Other | WILBARGER CREEK TRUITARY 205 SECTOR 6 N | |

Flood Risk Description

Kennemer Drive over Wilbarger Creek Tributary 200 currently floods during the 5-year storm event. The proposed improvement allows Kennemer Drive to pass the 10-year event and significantly reduces the flooding depth and flood extents of the 100-year storm event. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

| 2 | Population at risk 4 | Structures at risk 7 | Critical facilities at risk (number) 0 |
|---|------------------------------------|------------------------|--|
| Farm/Ranch land impacted (acres) ³ Roadway(s) impacted (miles) ^{0.27} | Farm/Ranch land impacted (acres) 3 | Roadway(s) impacted (m | niles) 0.27 |

Scope of Study

Conduct a study to evaluate proposed improvements. Study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall), limited field survey and geotechnical investigations, preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimates and a benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability). Potential improvements include replacing the existing culverts with a 150 foot 3-span bridge and raising the roadway profile by 0.8 feet. Improvements also include widening and stabilizing the channel underneath the bridge. The 2022 City of Pflugerville Drainage Master Plan estimated potential costs of improvements totaling approximately \$3.1 million.

Related Goal(s)

3.2 Increase the number of entities that have evaluated priority flood risk areas. 6.1 Reduce the number of structures and critical facilities that are at high risk through the implementation of structural flood mitigation projects. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways.

Estimated Study Cost

Cost \$220,000

Lower Colorado-Lavaca Flood Management Evaluation (FME) STUDY **REGIONAL FLOOD** PLANNING GROUP Title North Heatherwilde Improvements at Upper Gilleland Creek (DMP GC-02) ID# 101000235 Sponsor (note if City or County) Pflugerville (Municipality) Commitment Yes No Study Type Feasibility study Preliminary project engineering Emergency preparedness Floodplain modeling, mapping and risk assessment Other Problem Area City Pflugerville County Travis Willbarger Creek-Colorado River Tributary(ies) Gilleland Creek HUC#(s) 1209030101 0.24 Stream miles (est.) Drainage area: square miles, est 5.66 or acreage, est Social Vulnerability Index (SVI) 0.722, 0.2405, 0.4761 (SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.) Other

Flood Risk Description

Multiple streets and residential areas experience flooding from Gilleland Creek. North Heatherwilde Boulevard over Gilleland Creek currently floods during the 50-year storm event. The proposed design design allows North Heatherwilde Boulevard to pass the 100-year storm event, reduces flood risk for 8 homes, and relieves flooding on Cactus Blossom Drive. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

| Farm/Ranch land impacted (acres) ⁶ Roadway(s) impacted (miles) ^{0.04} | Population at risk 4 | Structures at risk 2 | Critical facilities at risk (number) |
|---|------------------------------------|-------------------------|--------------------------------------|
| | Farm/Ranch land impacted (acres) 6 | Roadway(s) impacted (mi | iles) 0.04 |

Scope of Study

Conduct a study to evaluate proposed improvements. Study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall), limited field survey and geotechnical investigations, preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimates and a benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability). Potential improvements include include extending the North Heatherwilde bridge opening by 80 feet in the southern direction and 500 feet of channel improvements, including channel benching upstream and downstream of the North Heatherwilde Boulevard bridge. The 2022 City of Pflugerville Drainage Master Plan estimated potential costs of improvements totaling approximately \$8.5 million.

Related Goal(s)

3.2 Increase the number of entities that have evaluated priority flood risk areas. 6.1 Reduce the number of structures and critical facilities that are at high risk through the implementation of structural flood mitigation projects. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways.

Estimated Study Cost

Cost \$1,200,000

Lower Colorado-Lavaca Flood Management Evaluation (FME) STUDY **REGIONAL FLOOD** PLANNING GROUP Title Railroad Avenue Improvements at Upper Gilleland Creek (DMP GC-04) ID# 101000237 Sponsor (note if City or County) Pflugerville (Municipality) Commitment Yes No Study Type Feasibility study Preliminary project engineering Emergency preparedness Floodplain modeling, mapping and risk assessment Other Problem Area City Pflugerville County Travis Willbarger Creek-Colorado River Tributary(ies) Gilleland Creek HUC#(s) 1209030101 Stream miles (est.) 0.7 Drainage area: square miles, est 8.14 or acreage, est Social Vulnerability Index (SVI) 0.4761, 0.2555, 0.0485 (SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.) Other

Flood Risk Description

Multiple streets and residential areas experience flooding from Gilleland Creek. Railroad Avenue over Gilleland Creek currently floods during the 2-year storm event. The proposed design allows Railroad to pass the 10-year storm event and reduces flood risk for 16 homes. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

| Population at risk 73 Structures at risk 41 Critical facilities at risk (number) 0 arm/Ranch land impacted (acres) 15 Roadway(s) impacted (miles) 0.46 | | | | | | | | |
|---|----------------------------------|-----------------|--------------|-----------------------|---------------|--------------------------------------|--|---|
| | | 73 | a 1 1 | 41 | 0.11 | | | 0 |
| Farm/Ranch land impacted (acres) ¹⁵ Roadway(s) impacted (miles) ^{0.46} | Population at risk ⁷³ | | Structu | Structures at risk 41 | | Critical facilities at risk (number) | | 0 |
| | Farm/Ranch land in | npacted (acres) | 15 | Roadway(s) imp | acted (miles) | 0.46 | | |

Scope of Study

Conduct a study to evaluate proposed improvements. Study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall), limited field survey and geotechnical investigations, preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimates and a benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability). Potential improvements include raising Railroad Avenue 5 feet and widening the bridge opening by 220 feet. Proposed improvements also include 1,760 feet of channel improvements including channel benching downstream of Railroad Avenue. The 2022 City of Pflugerville Drainage Master Plan estimated potential costs of improvements totaling approximately \$16.8 million.

Related Goal(s)

3.2 Increase the number of entities that have evaluated priority flood risk areas. 6.1 Reduce the number of structures and critical facilities that are at high risk through the implementation of structural flood mitigation projects. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways.

Estimated Study Cost

Cost \$1,200,000

Lower Colorado-Lavaca Flood Management Evaluation (FME) STUDY **REGIONAL FLOOD** PLANNING GROUP Title Swenson Farms Improvements at Upper Gilleland Creek (DMP GC-03) ID# 101000238 Sponsor (note if City or County) Pflugerville (Municipality) Commitment Yes No Study Type Feasibility study Preliminary project engineering Emergency preparedness Floodplain modeling, mapping and risk assessment Other Problem Area City Pflugerville County Travis Willbarger Creek-Colorado River Tributary(ies) Gilleland Creek HUC#(s) 1209030101 0.67 Stream miles (est.) Drainage area: square miles, est 6.57 or acreage, est Social Vulnerability Index (SVI) 0.4761 (SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.) Other

Flood Risk Description

Multiple streets and residential areas experience flooding from Gilleland Creek. Swenson Farms Boulevard over Gilleland Creek currently floods during the 100-year storm event. The proposed design allows Swenson Farms Boulevard to pass the 100-year storm event, reduces flood risk for 10 homes, and relieves flooding on Pfenning Lane. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

| Population at risk ⁰ Structures at risk ⁵ Critical facilities at risk (number) ⁰ | |
|---|--|
| | |
| Farm/Ranch land impacted (acres) ²⁰ Roadway(s) impacted (miles) ^{0.37} | |

Scope of Study

Conduct a study to evaluate proposed improvements. Study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall), limited field survey and geotechnical investigations, preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimates and a benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability). Potential improvements include extending the bridge opening by 50 feet to the north, 200 linear feet of channel improvements, including channel benching upstream and

downstream of Swenson Farms Boulevard, and a 2,000 foot embankment adjacent to Pfennig Lane to contain the floodplain. The 2022 City of Pflugerville Drainage Master Plan estimated potential costs of improvements totaling approximately \$5.2 million.

Related Goal(s)

3.2 Increase the number of entities that have evaluated priority flood risk areas. 6.1 Reduce the number of structures and critical facilities that are at high risk through the implementation of structural flood mitigation projects. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways.

Estimated Study Cost

Cost \$370,000

Lower Colorado-Lavaca Flood Management Evaluation (FME) STUDY **REGIONAL FLOOD** ANNING GROUP Title Weiss Lane Improvements at Wilbarger Creek (DMP WC-01) ID# 101000239 Sponsor (note if City or County) Pflugerville (Municipality) Commitment Yes No Study Type Feasibility study Preliminary project engineering Emergency preparedness Floodplain modeling, mapping and risk assessment Other Problem Area City Pflugerville County Travis PPLUGERVILLE Watershed name(s) Wilbarger Creek-Colorado River Tributary(ies) Wilbarger Creek HUC#(s) 1209030101 Stream miles (est.) 0.3 Drainage area: square miles, est 7.39 or acreage, est Social Vulnerability Index (SVI) 0.0012, 0.1957

(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)

Other

Flood Risk Description

Weiss Lane over Wilbarger Creek currently floods during the 50-year storm event. The proposed improvement allows Weiss Lane to pass the 100-year storm event. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

| | 0 | 0 | 0 |
|---|------------------------------------|------------------------|--------------------------------------|
| Farm/Ranch land impacted (acres) 9 Roadway(s) impacted (miles) 0.27 | Population at risk ⁰ | Structures at risk | Critical facilities at risk (number) |
| | Farm/Ranch land impacted (acres) 9 | Roadway(s) impacted (r | miles) 0.27 |

Scope of Study

Conduct a study to evaluate proposed improvements. Study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall), limited field survey and geotechnical investigations, preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimates and a benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability). Potential improvements include raising the roadway profile 4 feet to the south of the Weiss Lane bridge, adding six 10'x5' drainage relief culverts under the newly raised profile, and adding a 100' wide bypass channel to allow flow through the culverts. The 2022 City of Pflugerville Drainage Master Plan estimated potential costs of improvements totaling approximately \$1.6 million.

Related Goal(s)

3.2 Increase the number of entities that have evaluated priority flood risk areas. 6.1 Reduce the number of structures and critical facilities that are at high risk through the implementation of structural flood mitigation projects. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways.

Estimated Study Cost

Cost \$110,000

| Title Riverwood Drive Improvement | ts at Piney Creek (DMP PC-02) | ID# | 101000246 | PLANNING GR | OUP |
|-----------------------------------|-------------------------------|------------|-----------|-------------|-----|
| Sponsor (note if City or County) | Bastrop (Municipality) | Commitment | Yes No | REGION 10 | |
| Study Type | | | | | |

Emergency preparedness Floodplain modeling, mapping and risk assessment Feasibility study Preliminary project engineering Other

Problem Area

| City Bastrop | County Bastrop | A Contraction |
|---|---------------------------|------------------|
| Watershed name(s) Piney Creek-Colorado | | |
| | | - |
| Tributary(ies) Piney Creek | | |
| 1000000100 | Stream miles (est.) 1.79 | |
| Drainage area: square miles, est 1 | or acreage, est | |
| Social Vulnerability Index (SVI) 0.5979 | | Non-second state |
| (SVI score 0.0 indicates least vulnerable; 1.0 in | dicates most vulnerable.) | |
| Other | | |



Lower Colorado-Lavaca REGIONAL FLOOD

Flood Risk Description

Riverwood Drive becomes flooded by Piney Creek during the 50% ACE storm event. The proposed design prevents Riverwood Drive from overtopping during the 10% ACE storm event and reduces, but does not eliminate, overtopping during the 4% ACE storm event. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

| Population at risk | 13 | Structures at | risk ¹⁵ | Criti | cal facilities at risk (| number) | 1 |
|--------------------|-----------------|---------------|------------------------|--------|--------------------------|---------|---|
| Farm/Ranch land im | npacted (acres) | 86 | Roadway(s) impacted (m | niles) | 0.58 | | |

Scope of Study

Conduct a study to evaluate proposed improvements. Study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall), limited field survey and geotechnical investigations, preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimates and a benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability). Potential improvements include raising Riverwood Drive by approximately 17.25 feet, 375 feet of roadway improvements, replacing the existing culverts with a 210-foot bridge,

8,125 linear feet of channel clearing, and approximately 280 linear feet of channel improvements. The 2023 City of Bastrop Drainage Master Plan estimated potential costs of improvements totaling approximately \$2.3 million.

Related Goal(s)

3.2 Increase the number of entities that have evaluated priority flood risk areas. 6.1 Reduce the number of structures and critical facilities that are at high risk through the implementation of structural flood mitigation projects. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways.

Estimated Study Cost

Cost \$160,000