

Chapter 9: Flood Infrastructure Financing Analysis



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9. Flood Infrastructure Financing Analysis

The Region 14 RFPG has recommended a total of 58 flood mitigation actions to address flood risk across the planning region. Combined, these flood mitigation actions are anticipated to cost \$522.7 million to implement. The summary of recommended flood mitigation by action type are summarized in **Table 9.1**.

Table 9.1 Total Cost of Recommended Flood Mitigation Actions

Flood Mitigation Action Type	Number of Recommended Actions	Anticipated Total Cost of Implementation
FME	52	\$11,269,725
FMP	21	\$507,789,826
FMS	22	\$3,586,100
Total	66	\$522,667,191

TWDB requires that each RFPG assess and report on how local sponsors propose to finance recommended FMEs, FMSs, and FMPs. To determine the capabilities of the local sponsors to finance the projects, the RFPG conducted a survey for local sponsors to determine the funding needs of local sponsors and propose what role the state should have in financing the recommended FMEs, FMSs, and FMPs. **Section 9.1** presents an overview of common sources of funding for flood mitigation planning, projects, and other management efforts. The methodology and results of the financing survey are presented in **Section 9.2**.

9.1 Sources of Funding for Flood Management Activities

Stormwater infrastructure and floodplain management activities are historically underfunded programs compared to other infrastructure types, and this is a continued challenge that local entities documented in written and verbal communications throughout the planning process. Lack of local funding was indicated as a leading cause of inadequate or deficient drainage infrastructure faced by municipalities. Given the challenges of funding flood management activities, local sponsors will likely be required to use a combination of funding sources to implement flood mitigation actions, including local, state, and federal sources. This section discusses some of the most common avenues of generating local funding and overviews various state and federal financial assistance programs available to entities for flood management. **Table 9.2** summarizes the local, state, and federal funding opportunities that may be available for flood management activities and characterizes each by the following three key parameters: (1) which state and federal agencies are involved, if applicable; (2) whether each funding opportunity offers grants, loans, or both; and (3) whether each funding opportunity is regularly occurring or is only available after a disaster.

Table 9.2 Sources of Funding for Flood Management Activities in Texas

Source	Federal Agency	State Agency	Program Name	Grant (G)	Loan (L)	Post-Disaster (D)
Federal	EPA	TCEQ/TSSWCB	Nonpoint Source Grant Program 319(h) (NPS)	G	-	-
		TWDB	Clean Water State Revolving Fund (CWSRF)	G ¹	L	-
	FEMA		Cooperating Technical Partners (CTP)	G	-	-
		TBD	Safeguarding Tomorrow through Ongoing Risk Mitigation Program (STORM)	-	L	-
		TCEQ	Rehabilitation of High Hazard Potential Dam Program (HHPD)	G	-	-
		TDEM	Building Resilient Infrastructure and Communities (BRIC) ²	G	-	-
		TDEM	Hazard Mitigation Grant Program (HMGP)	G	-	D
		TDEM	Public Assistance (PA)	G	-	D
		TWDB	Flood Mitigation Assistance Program (FMA)	G	-	-
	HUD	GLO	Community Development Block Grant-Disaster Recovery (CDBG-DR)	G	-	D
		GLO/TDEM	Community Development Block Grant-Local Hazard Mitigation Plan Program (LHMPP)	G	-	-
		GLO	Community Development Block Grant-Mitigation (CDBG-MIT)	G	-	D
		TDA	Texas Community Development Block Grant (TxCDBG) Program for Rural Texas	G	-	-
	NRCS		Emergency Watershed Protection Program (EWP)	G	-	D
			Watershed and Flood Prevention Operations Program (WFPO)	G	L	-
			Watershed Rehabilitation Program (REHAB)	G	-	-
	USACE		Continuing Authorities Program (CAP) ³	-	-	-
			Partnerships with USACE, funded through WRDA or other legislative vehicles ³	-	-	-
State	N/A	TWDB	Flood Infrastructure Fund (FIF)	G	L	-
		TWDB	Texas Water Development Fund (DFund)	G	L	-
		TWDB	Rural Water Assistance Fund (RWAF)	-	L	-
		TSSWCB	Structural Dam Repair Grant Program	G	-	-
		TSSWCB	Flood Control Operation and Maintenance (O&M) Grant Program	G	-	-
		TSSWCB	Flood Control Dam Infrastructure Projects - Supplemental Funding	G	-	-
Local	Not Applicable		General Fund	Not Applicable		
			Stormwater or Drainage Utility Fee			
			Tax Applications			
			Bonds			
			Special-Purpose Districts			

¹ The CWSRF program offers principal forgiveness, which is similar to grant funding.

² At the time of this report, Texas projects may see limited success with BRIC applications, given that the state has not adopted the latest building codes. This status may change in the future.

³ Opportunities to partner with USACE are not considered grant or loan opportunities, but shared participation projects where USACE performs planning work and shares in the cost of construction.

9.1.1 Local Funding

The communities in Region 14 are primarily rural and less impacted by urban development, as described in **Chapter 1** of this RFP. The total population in the region is just over 1 million. Of the counties in this region, El Paso County has a population greater than 900,000 people, three others (Pecos, Reeves, and Ward counties) have populations greater than 10,000, and the remaining 19 counties have populations of less than 10,000. The vast majority (89%) of the population in Region 14 reside in El Paso County. In addition, the western part of the region is highly vulnerable overall with typical Social Vulnerability Index (SVI) values of 0.8 or greater.

Some of the communities in Region 14 have dedicated or regular funding sources for stormwater infrastructure or flood management activities; however, as the majority of the communities in this region tend to be rural and socioeconomically disadvantaged, many communities do not. These communities face an uphill battle to fund community initiatives and improvement projects.

Entities that do have sources of local funding generally rely on the following: general funds, dedicated revenues in the form of stormwater or drainage utility fees, tax applications, and bonds. These funding sources are typically not sufficient to fully fund a community's total need. Entities indicated that the local match percentage they would expect to supply for future funding opportunities for flood management activities would range from 5% to 50% of the total funding need, including both cash and in-kind services. Each potential local funding source presents its own unique challenges and considerations, described in the following sections.

9.1.1.1 General Fund

A community's general fund revenue stems from sales, property, and other taxes and is typically the primary fund used by a governmental entity to support most of its departments and services such as police, fire, parks, trash collection, and local government administration. Due to the high demands on this fund for many local needs, there is often not a significant amount available for funding flood projects out of the general fund. Similarly, general funds are not dedicated for flood management activities but are instead allocated on a case-by-case basis. General funds are commonly used to fund flood management activities in Region 14.

9.1.1.2 Stormwater or Drainage Utility Fee

Dedicated fees such as stormwater or drainage fees are an increasingly popular tool for local flood-related funding. Municipalities can establish a stormwater utility (sometimes called a drainage utility), which is a legal mechanism used to generate revenue to finance a city's cost to provide stormwater services. To provide these services, municipalities assess fees to users of the stormwater utility system. Multiple entities in Region 14 indicated using utility fees to fund flood management activities.

It is important to note that while Texas municipalities have the authority to implement utility fees for stormwater and drainage, the State Legislature has not granted that same authority to counties.

Impact fees, which are necessitated by and collected from new development to cover a portion of expenses to expand stormwater systems, can also be used as a source of local funding for flood-related efforts. None of the entities in Region 14 indicated via the survey that they use impact fees to fund drainage projects.

9.1.1.3 Tax Applications

Tax applications include sales and property taxes, sales tax reallocations, and special tax districts, including Tax Increment Financing (TIF). Taxes are not a dedicated source of funding for stormwater and increasing taxes or diverting revenue away from other programs is generally not politically popular. Special tax districts can be a useful financing method to allow local governments to invest in public infrastructure improvements in areas that are expected to develop by diverting future tax revenue from these areas to pay for the cost of improvements. This mechanism localizes the cost to fund projects to the area receiving the benefit; however, it relies on the development in the district to occur as expected in order to finance the project and also diverts future tax revenue away from other programs or needs that may arise. Multiple entities in Region 14 indicated using tax notes to fund flood management activities.

9.1.1.4 Bonds

Municipalities and counties also have the option to issue debt through bonds which are typically paid back using any of the previously mentioned local revenue raising mechanisms. There are several types of applicable bonds, including general obligation bonds, revenue bonds, or certificates of obligation. Multiple entities in Region 14 indicated that they would use bonds to fund flood management activities.

Revenue bonds typically are not used to finance drainage infrastructure, since they are used to finance municipal projects that generate revenue (which is not typical of drainage infrastructure) that is then used to make payments to bond holders.

In addition to revenue bonds, general obligation bonds and certificates of obligation can provide alternate sources of funding. Between these two alternatives, general obligation bonds are more common. While these bonds typically have a high bond rating and low interest rates, there are a handful of constraints. First, different city programs are typically competing with each other for funding through a given bond program. Second, debt obligations contribute to a lack of flexibility in future financing applications. Lastly, general obligation bonds require voter approval.

Certificates of obligation, conversely, do not require voter approval and can therefore provide flexibility when projects need to be funded quickly. However, they can be controversial and unpopular when not used in emergency applications. Like general obligation bonds, they contribute to a community's debt obligations and may impact future funding decisions.

9.1.1.5 Special-Purpose Districts and Other Local and Regional Entities

Another source for local funding to support flood management efforts includes special-purpose districts. A special-purpose district is a political subdivision established to provide a single public service (such as water supply, drainage, or sanitation) within a specific geographic area. Examples of these special districts include Water Control and Improvement Districts (WCID),

Municipal Utility Districts (MUD), Drainage Districts (DD), and Flood Control Districts (FCD). Each of the different types of districts are governed by different state laws that specify the authorities and process for creation of one such district. Districts can be created by various entities, from the Texas Legislature or the TCEQ to county commissioners' courts or city councils. Depending on the type of district, the districts may have the ability to raise revenue through taxes, fees, or issuing bonds to fund flood and drainage-related improvements within a district's jurisdiction.

There may be opportunities to create special-purpose districts in the region as future growth occurs for the purposes of generating revenue from district taxes and fees. Funding avenues for other types of local and regional entities, such as river authorities, are not discussed in this Chapter. These special-purpose districts and other local and regional entities may represent potential future funding sources for Region 14, as no survey respondents indicated using special-purpose districts to fund flood management activities.

9.1.2 State Funding

The availability of local funding for flood management activities is generally much lower than the need, leading communities to seek out and apply for state and federal financial assistance programs. Today, communities have a broader range of state funding sources and programs available due to new grant and loan programs that did not exist five years ago.

There are two primary state agencies currently involved in providing state funding for flood projects: the TWDB and the TSSWCB. State and federal financial assistance programs discussed herein are not directly available to homeowners nor the general public. Local governments apply on behalf of their communities to receive and implement funding for flood projects in their jurisdiction.

9.1.2.1 Texas Water Development Board (TWDB)

The TWDB has three state-funded programs for flood management activities.

The TWDB's [Flood Infrastructure Fund \(FIF\)](#) was passed by the Texas Legislature and approved by Texas voters through a constitutional amendment in 2019. The program provides financial assistance in the form of low or no interest loans and grants (cost match varies) to eligible political subdivisions for flood control, flood mitigation, and drainage projects. FIF rules allow for a wide range of flood projects, including structural and nonstructural projects, planning studies, and preparedness efforts such as flood early warning systems. Only projects included in the most recently adopted State Flood Plan will be eligible for funding from the FIF. FMEs, FMSs, and FMPs recommended in this RFP will be included in the overall State Flood Plan and will therefore be eligible for funding.

The TWDB also manages the [Texas Water Development Fund \(DFund\)](#) program, which is a state-funded, streamlined loan program that provides financing for several types of infrastructure projects to eligible political subdivisions. This program enables the TWDB to fund projects with multiple eligible components (water supply, wastewater, or flood control) in one loan at low market rates. Financial assistance for flood management activities may include structural and nonstructural projects, planning efforts, and flood warning systems.

The [Rural Water Assistance Fund \(RWAF\)](#) assists small rural utilities to obtain low-cost financing for water and wastewater projects in the form of tax-exempt equivalent interest rate loans with long-term finance options. Rural political subdivisions are eligible, which include water supply corporations, districts, and municipalities serving populations for 10,000 or less, and counties in which no urban area has a population exceeding 50,000. Several Region 14 municipalities and counties may be eligible for this funding source. Financial assistance for flood management activities may include planning, design, and construction for pumping facilities, storage reservoirs, acquiring groundwater and surface water rights, and collection systems, among others.

9.1.2.2 Texas State Soil & Water Conservation Board (TSSWCB)

The TSSWCB has three state-funded programs specifically for flood control dams.

The [O&M Grant Program](#) is a grant program for local Soil and Water Conservation Districts (SWCD) and certain co-sponsors of flood control dams. This program reimburses SWCDs 90% of the cost of an eligible operation and maintenance activity as defined by the program rules; the remaining 10% must be paid with non-state funding.

The [Flood Control Dam Infrastructure Projects - Supplemental Funding Program](#) was created and funded in 2019 by the Texas Legislature. Grants are provided to local sponsors of flood control dams, including SWCDs, to fund the repair and rehabilitation of the flood control structures, to ensure dams meet safety criteria to adequately protect lives downstream.

The [Flood Control Structural Repair Grant Program](#) provides state grant funds to provide 95% of the cost of allowable repair activities and up to 98.25% of the cost of dam upgrade projects on dams constructed by the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS). The program includes match funding for federal projects through the Dam Rehabilitation Program and the Emergency Watershed Protection Program of the Texas NRCS.

9.1.3 Federal Funding

Federal funding currently accounts for a large share of total available funding for flood projects throughout the state, as federal funding programs offer greater access and availability to large funding amounts from the federal government as appropriated by Congress. There are 18 federal funding programs discussed in this section, administered by several federal agencies and organizations. The funding for these programs originates from the federal government; however, for 13 of the 18 funding programs, a state agency partner plays a key role in management of the program, including assembling and submitting state application packages and administering federally awarded grant funding. Each federal funding opportunity is unique in its eligible applicants, eligible project types, requirements, and application and award timelines. The federal funding opportunities are discussed below by federal agency.

9.1.3.1 Environmental Protection Agency (EPA)

The EPA has two federal funding programs for flood management activities.

The [Nonpoint Source \(NPS\) Grant Program Section 319\(h\)](#) provides funds to prevent or reduce urban and non-agricultural nonpoint source pollution. The program funds are primarily for im

plementing watershed protection plans, but may also be used for education and outreach, projects to protect unimpaired waters, and management measures to address NPS pollution. Projects that implement Municipal Separate Storm Sewer System (MS4) permit requirements are not eligible for funding. The NPS Grant Program is administered in Texas by the Texas Commission on Environmental Quality (TCEQ) and the TSSWCB.

The [Clean Water State Revolving Fund \(CWSRF\)](#) provides financial assistance in the form of loans with subsidized interest rates and opportunities for partial principal forgiveness for planning, acquisition, design, and construction of wastewater, reuse, and stormwater mitigation infrastructure projects. Projects can be structural or non-structural. Low Impact Development (LID) projects are also eligible. The CWSRF is administered in Texas by the TWDB.

9.1.3.2 Federal Emergency Management Agency (FEMA)

FEMA has seven federal funding programs for flood management activities.

The [Cooperating Technical Partners \(CTP\) Program](#) is an effort launched by FEMA in 1999 to increase local involvement in developing and maintain up-to-date Flood Insurance Rate Maps (FIRMs), Flood Insurance Study (FIS) reports, and associated geospatial data in support of FEMA's National Flood Insurance Program (NFIP). To participate in the program, interested NFIP-participating communities, state or regional agencies, universities, territories, tribes, or nonprofits must complete training and execute a partnership agreement. Working with the FEMA regions, a program participant can develop business plans and apply for grants to perform eligible activities.

[Safeguarding Tomorrow through Ongoing Risk Mitigation \(STORM\)](#) is a new revolving loan program enacted through federal legislation in 2021 to provide sustainable funding for hazard mitigation projects, including water, infrastructure, and disaster recovery projects. The program is designed to provide capitalization grants to states to establish revolving loan funds for hazard mitigation projects. In November 2021, the Infrastructure Investment and Jobs Act (IIJA) appropriated \$500 million in funds to the STORM program, or \$100 million per year for five years. At the time of the publication of this RFP, the STORM program is not yet operational and has not yet been implemented in Texas.

The [Rehabilitation of High Hazard Potential Dam \(HHPD\) Grant Program](#), administered in Texas by the TCEQ, provides technical, planning, design, and construction assistance in the form of grants for rehabilitation of eligible high hazard potential dams. The cost share requirement is typically no less than 35% state or local share.

The [Building Resilient Infrastructure and Communities \(BRIC\)](#) is a new pre-disaster funding program implemented in 2020 that replaces FEMA's previously longstanding Pre-Disaster Mitigation Grant Program. The program supports states, local communities, tribes, and territories as they undertake hazard mitigation projects to reduce the risks they face from disasters and natural hazards. Funding is typically a 75% federal grant with a 25% local match. However, eligible small, impoverished communities and U.S. island territories may be funded through a 90% or 100% federal grant, respectively. BRIC is administered in Texas by the Texas Division of Emergency Management (TDEM).

Under the [Hazard Mitigation Grant Program \(HMGP\)](#), FEMA provides funding to state, local, tribal, and territorial governments so they can rebuild from a recent disaster in a way that reduces, or mitigates, future disaster losses in their communities. Funding is typically a 75% federal grant with a 25% local match. While the program is associated with Presidential Disaster Declarations, the HMGP is not a disaster relief program for individual disaster victims or a recovery program that funds repairs to public property damaged during a disaster. The key purpose of the HMGP is to ensure that the community's opportunity to take critical mitigation measures to reduce the risk of loss of life and property from future disasters is not lost during the reconstruction process following a federally declared disaster. The HMGP program is administered in Texas by TDEM.

The [Public Assistance \(PA\) Program](#) provides supplemental grants to state, tribal, territorial, and local governments, and certain types of private non-profits following a declared disaster so communities can quickly respond to and recover through actions such as debris removal, life-saving emergency protective measures, and restoring public infrastructure. Funding cost share levels are determined for each disaster and the local match requirement is typically between 10% and 25%. In Texas, the FEMA PA program is administered by TDEM.

The [Flood Mitigation Assistance \(FMA\) Grant](#) is a nationally competitive program that provides funding to states, local communities, federally recognized tribes, and territories. Funds can be used for projects that reduce or eliminate the risk of repetitive flood damage to buildings insured by the NFIP. Funding is typically a 75% federal grant with a 25% local match. Projects mitigating Repetitive Loss and Severe Repetitive Loss properties may be funded through a 90% or 100% federal grant, respectively. FMA is administered in Texas by the TWDB.

9.1.3.3 U.S. Department of Housing and Urban Development (HUD)

The U.S. Department of Housing and Urban Development has four federal funding programs for flood management activities.

Following a major disaster, Congress may appropriate funds to HUD under the [Community Development Block Grant-Disaster Recovery \(CDBG-DR\) Program](#) when there are significant unmet needs for long-term recovery. Appropriations for CDBG-DR are frequently very large, and the program provides 100% grants in most cases. The special federal appropriation provides funds to the most impacted and distressed areas for disaster relief, long-term recovery, restoration of infrastructure, housing, and economic revitalization. The CDBG-DR program is administered in Texas by the Texas General Land Office (GLO).

The [Community Development Block Grant-Local Hazard Mitigation Plans \(LHMPP\) Program](#) assists entities by providing grants to develop or update local hazard mitigation plans. It can also be used to provide cost share for hazard mitigation planning activities funded through other federal sources. LHMPP funds are administered by HUD through the CDBG-MIT program, described below, and are implemented by the GLO and/or TDEM, depending on the activity being funded.

The [Community Development Block Grant-Mitigation \(CDBG-MIT\) Program](#) allows eligible grantees to use assistance in areas impacted by recent disasters to carry out strategic and high-impact activities to mitigate disaster risks. The primary feature differentiating CDBG-MIT from CDBG-DR is that, unlike CDBG-DR, which funds recovery from a recent disaster to restore damaged services, systems, and infrastructure, CDBG-MIT funds are intended to support mitigation efforts to rebuild in ways that will lessen the impact of future disasters. CDBG-MIT defines such mitigation activities as those that increase resilience to disasters or reduce or eliminate the long-term risk of loss of life, injury, damage to and loss of property, and suffering or hardship resulting from the disaster. The CDBG-MIT program is administered in Texas by the GLO.

The [Community Development Block Grant \(TxCDBG\) Program for Rural Texas](#) provides annual grants on a formula basis to small, rural cities and counties to develop viable communities by providing decent housing and suitable living environments and expanding economic opportunities principally for persons of low- to moderate-income. Funds can be used for public facilities such as water and wastewater infrastructure, street and drainage improvements, and housing. The TxCDBG program is administered by the Texas Department of Agriculture (TDA).

9.1.3.4 U.S. Department of Agriculture Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's Natural Resources Conservation Service has three federal funding programs for flood management activities.

The [Emergency Watershed Protection \(EWP\) Program](#) is a federal emergency recovery grant program that helps local communities recover after a natural disaster by offering technical and financial assistance to relieve imminent threats to life and property caused by floods and other natural disasters that impair a watershed. The EWP Program does not require an official disaster declaration for program assistance to begin and can include projects like removing debris from stream channels, road culverts, and bridges; reshaping and protecting eroded stream banks; and repairing damaged or destroyed facilities.

The [Watershed Protection and Flood Prevention Operations \(WFPO\) Program](#) offers grants and loans to help federal, state, local and tribal governments protect and restore watersheds up to 250,000 acres. Funding can be used to prevent erosion, floodwater, and sediment damage; to further the conservation development, use and disposal of water; and to further the conservation and proper use of land in authorized watersheds. The program requires public sponsorship and that at least 20% of project benefits be directly related to agriculture, including rural communities.

Lastly, the [Watershed Rehabilitation \(REHAB\) Program](#) offers grants to help local sponsors rehabilitate aging dams that are reaching the end of their design lives and/or no longer meet federal or state standards. The program targets rehabilitation projects that address critical public health and safety concerns. Costs associated with additional or new water supply storage purposes may be added to the rehabilitation project and cost-shared with REHAB funds. Local cost share is typically 35% of the total construction cost.

9.1.3.5 U.S. Army Corps of Engineers (USACE)

The USACE works with non-federal partners (states, tribes, counties, or local governments) throughout the country to investigate water resources and related land problems and opportunities and, if warranted, develop civil works projects that would otherwise be beyond the sole capability of the non-federal partners. Partnerships are typically initiated or requested by the local community to their local USACE District office. Before any project or study can begin, USACE determines whether there is an existing authority under which the project could be considered, such as the [Continuing Authorities Program \(CAP\)](#), or whether Congress must establish study or project authority and appropriate specific funding for the activity.

New study or project authorizations are typically provided through periodic **Water Resource Development Acts (WRDA)** or via another legislative vehicle. Congress will not provide project authorization until a completed feasibility study results in a recommendation to Congress of a water resources project, conveyed via a Report of the Chief of Engineers (Chief's Report) or Report of the Director of Civil Works (Director's Report). Opportunities to partner with USACE are not considered grant or loan opportunities, but rather are shared participation projects where USACE performs planning work and shares in the cost of construction with the non-federal sponsor. Additionally, USACE has other technical assistance opportunities, including [Floodplain Management Services](#) and the **Planning Assistance to States Program**, that are available to local entities.

9.1.3.6 Special Appropriations

On occasion and when the need is large enough, Congress may appropriate funds for special circumstances such as natural disasters or pandemics. A few examples of special appropriations from the federal government that can be used to fund flood-related activities are discussed below.

In 2021, the [American Rescue Plan Act \(ARPA\)](#) provided for a substantial infusion of resources to eligible state, local, territorial, and tribal governments to support their response to and recovery from the COVID-19 pandemic. The [Coronavirus State and Local Fiscal Recovery Funds \(SLFRF\) Program](#), a part of ARPA, delivers \$350 billion directly to state, local, and tribal governments across the country. Some of the authorized uses include improving stormwater facilities and infrastructure. Although not a direct appropriation to local governments like ARPA, the 2021 [Infrastructure Investment and Jobs Act \(IIJA\)](#), also called the [Bipartisan Infrastructure Law \(BIL\)](#), authorizes over \$1 trillion for infrastructure spending across the U.S. and provides for a significant infusion of resources over the next several years into existing federal financial assistance programs as well as creating new programs. In April 2022, the Biden Administration issued a [Bipartisan Infrastructure Law Rural Playbook](#) as a "roadmap for delivering opportunity and investments in rural America."

9.1.4 Barriers to Funding

Local entities encounter barriers to accessing or seeking funding sources for flood management activities, including lack of knowledge of funding sources, lack of expertise to apply for funding, and lack of local funds available for match requirements. As opposed to some other types of infrastructure, flood projects do not typically generate revenue and many entities do not have

steady revenue streams to fund flood projects, as discussed in **Section 9.1.1**. Consequently, entities struggle to generate funds for local match requirements or loan repayment. Multiple of the entities responding to the survey indicated that their financial capacity to provide local match funds for a given project would be 10% or less, including cash and in-kind services. Complex or burdensome application or program requirements, as well as prolonged implementation timelines also act as barriers to entities being equipped to access state and federal financial assistance. Of those entities able to overcome those barriers, apply for funding, and generate local resources for match requirements, the competitiveness of state and federal grant/loan funding opportunities still leave many local entities without the resources they need to address flood risks.

9.2 Flood Infrastructure Financing Survey

To assist local entities with acquiring funding for the flood mitigation actions identified in this plan, the Upper Rio Grande Flood Planning Group developed a Flood Infrastructure Financing (FIF) survey for potential local sponsors to gain an understanding of the funding needs in the region and to characterize what role the RFPG proposes for the state in financing the recommended FME, FMS, and FMP action types.

9.2.1 Survey Methodology

The FIF survey was a short, 9-question online survey with a table listing each flood mitigation action for which an entity was identified as a sponsor or co-sponsor in the RFP and instructing the respondent to indicate which funding sources, if any, had been identified to complete the mitigation action. The survey included a link to a SharePoint folder that contained project summary spreadsheets for each flood mitigation action listed in the plan as a resource for sponsors. A copy of the questions from the Funding Survey sent to sponsors of FMEs, FMPs, and FMSs is included in **Appendix 9A**.

The survey was sent via email to community representatives from 29 entities on a rolling basis between the dates of June 15, 2022 and July 4, 2022 requesting responses between June 27, 2022 and July 15, 2022. The contact list was compiled from various sources, including contact information collected through the initial flood planning survey for community officials and available online data. At least one point of contact was able to be identified from each community. A summary of the entities contacted for the FIF survey is provided in **Table 9.3**.

Where no response was received by the deadline, it was assumed that the action would need 100% funding from the state. Similarly, some respondents did not indicate whether or not they would be able to provide a match or what funding source would be used; in those cases, it was assumed the action would need 100% funding from the state.

Table 9.3 Region 14 Entities Contacted for FIF Survey

County or Municipality	Date Survey Sent	Date Response Requested	Response Received?
Brewster County	July 4, 2022	July 15, 2022	No
City of Alpine	July 1, 2022	July 8, 2022	Yes
City of Kermit	June 15, 2022	June 27, 2022	No
City of Marfa	June 15, 2022 July 1, 2022	June 27, 2022 July 8, 2022	Yes
City of Monahans	June 15, 2022 July 1, 2022 July 4, 2022	June 27, 2022 July 8, 2022 July 15, 2022	Yes
City of Ozona	June 15, 2022	June 27, 2022	No
City of Pecos	June 15, 2022	June 27, 2022	No
City of Presidio	July 1, 2022	July 8, 2022	Yes
City of San Elizario	June 15, 2022	June 27, 2022	Yes
City of Socorro	June 15, 2022	June 27, 2022	Yes
City of Sonora	June 15, 2022	June 27, 2022	No
Crocket County WCID	July 1, 2022	July 8, 2022	No
Dona Ana County	July 4, 2022	July 15, 2022	No
El Paso County	June 15, 2022 July 1, 2022	June 27, 2022 July 8, 2022	Yes
El Paso Water	June 15, 2022	June 27, 2022	Yes
EPCWID #1	June 15, 2022 July 1, 2022	June 27, 2022 July 8, 2022	Yes
Fort Hancock WCID	July 4, 2022	July 15, 2022	No
Fort Stockton	June 15, 2022	June 27, 2022	No
Hudspeth County	June 15, 2022	June 27, 2022	Yes
Hudspeth County CRD1	July 1, 2022	July 8, 2022	Yes
National Park Service	July 4, 2022	July 15, 2022	No
Pecos County	July 1, 2022 July 4, 2022	July 8, 2022 July 15, 2022	No
Presidio County	July 1, 2022	July 8, 2022	No
Reeves County	July 4, 2022	July 15, 2022	No
Rio Grande Joint Ventures	July 4, 2022	July 15, 2022	No
Texas Department of Transportation	July 1, 2022	July 8, 2022	No
Texas General Land Office	July 1, 2022	July 8, 2022	No
U.S. Army Corps of Engineers	July 1, 2022	July 8, 2022	No
U.S. IBWC	July 1, 2022	July 8, 2022	No

9.2.2 Survey Results

Table 9B in Appendix 9B presents the results of the Sponsor Financing survey for each FME, FMS, and FMP. Of the 29 entities contacted, 11 responded to the survey, an overall response rate of 37.9%.

While the overall response rate appears low, there is significant interest and continued participation demonstrated by major regional stakeholders. The entities that responded to the survey are listed as sponsors for a combined 46 of the 58 flood mitigation actions (79%) accounting for \$156.5 million (97.6%) of the total implementation cost needed. As a result, even with a low overall response rate, the information received provides a representative picture of total funding needs across the basin.

Of the 11 entities that responded to the survey, the likely sources of funding indicated to implement flood management activities included general or dedicated revenues, bonds, tax notes, or utility fees. Just under half (5 of 11) of the respondents had not applied for grant funding in the past 5 years (one respondent left this blank). Of the remaining six respondents that had applied for grant funding, three had been successful in receiving a grant and loan, one had been unsuccessful, one had received an invitation for a full application but decided not to pursue the project, and one application was still under further review.

The communities in Region 14 have demonstrated a strong commitment to funding regional flood management activities. El Paso County, for instance, issued two certificates of obligation in the amounts of \$1.61 million and \$20.7 million to finance construction of detention ponds, channel improvements, and flood mitigation projects throughout the county. El Paso County is also seeking a \$2.37 million loan from the TWDB for similar improvements. Similarly, EPWater authorized the issuance of \$25 million to pay off a line of credit used for Capital Improvement Program drainage projects for fiscal year (FY) 2022-23 and issued revenue bonds in 2022 for \$9.49 million to pay for flood mitigation actions. In total, the drainage capital improvement projects undertaken by EPWater for FY 2022-23 will be \$70 million.

9.3 Proposed Role of State in Financing

Overall, there is an estimated \$522.7 million needed to implement the recommended FMEs, FMSs, and FMPs in this RFP beyond what is anticipated to be funded by local sponsors. This figure represents 97% of the total cost of the flood mitigation actions identified in this plan. There may be other sources of funding available through other local, state, and federal programs outlined previously in this section, or future revenue sources, but these have not been acquired to date for the actions listed in the RFP.

This estimate does not represent the amount of funding needed to mitigate all risks in the region nor to solve known regional flooding problems in their totality. Rather, this estimate only represents the funding needs for the specific, identified studies, strategies, and projects in this cycle of regional flood planning. Future cycles of regional flood planning will continue to identify more projects and studies needed to further flood mitigation efforts in the Upper Rio Grande Flood Planning Group (Region 14).

For planning purposes, the RFPG recommends using this figure to estimate the need for funding from the state. While certain entities may choose to adjust their expenditure priorities or find ways to generate additional revenue for drainage projects, the RFPG anticipates that a significant gap will remain between the cost to implement the RFP and the funding that can be generated by local jurisdictions. The RFPG also recognizes that it is unlikely, if not impossible, for

enough money to be appropriated to the FIF to be able to fill the funding gap across the region and the state as a whole.

The RFPG recommends that the TWDB utilize the information generated by these RFPs to assist entities with identifying and leveraging existing funding sources that are available for FMPs, such as by providing assistance to small and underserved communities with grant funding applications and simplifying and streamlining TWBD program and application requirements, when possible. This RFP also provides recommendations to help identify other potential revenue-raising opportunities for flood mitigation in the state, as can be found in **Chapter 8**.

Appendix 9A

Sponsor Funding Survey Questions

Appendix 9B

Funding Survey Summary Table for FMEs, FMPs, and FMSs