



20-YEAR CAPITAL IMPROVEMENT PLAN

FOR EAST BATON ROUGE STORMWATER MASTER PLAN

FINAL REPORT



HNTB

Submitted January 2023

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**CAPITAL IMPROVEMENT PLAN
FOR
STORMWATER MASTER PLAN**

City of Baton Rouge – East Baton Rouge Parish

PROVIDED TO:

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Mayor-President

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1. Introduction

The City of Baton Rouge and Parish of East Baton Rouge (City-Parish) experienced widespread, devastating flooding in August 2016. These floods brought to light the current challenges regarding existing stormwater conveyance systems, development regulations, and their impacts on overall stormwater management in the Parish. The City-Parish Stormwater Capital Improvement Plan (CIP) is the culmination of the Stormwater Master Plan (SMP) work that was initiated in November 2017 to provide the City-Parish with effective flood risk mitigation solutions that will reduce the potential for extensive stormwater damages and risk to life, public health, safety, property, and the environment. The CIP provides a prioritized list of capital investments incorporating 63 projects identified and consistent with the SMP goals for future implementation as funding becomes available. These goals are:

Goal 1: Plan for a stormwater system that accounts for a warming, wetter climate

Goal 2: Identify hazards, develop a comprehensive technical plan that reduces flood risk in the watershed and has no upstream or downstream impacts

Goal 3: Develop and build a stormwater plan that has minimal local and regional impact

Goal 4: Develop/maintain stormwater infrastructure

The Stormwater CIP is a multi-year planning instrument used to identify needs and grant opportunities for public infrastructure improvements specifically involving implementation of stormwater improvement projects that will reduce the risk of flooding over the long term. The planning horizon for the Stormwater CIP is 20 years, with the first five years providing for early investments that are achievable within existing and anticipated resources. Long-term investments will be needed to provide the vision to support the Parish efforts to pursue and establish dedicated funding options including Federal and state grant opportunities. The Stormwater CIP will be a living (adaptive)-document revisited every five years (at minimum) as the next phases of the work further refines projects and as additional work is performed that may identify additional effective risk reduction alternatives, and/or as other constraints may arise. The project refining process includes moving projects from planning level details and designs into necessary detailed designs that consider environmental requirements, permitting, and refinement of schedule and cost estimates.

The development of the Stormwater CIP was an iterative process by way of building, refining, and improving a project, product, or initiative until team consensus determined that the effort had reached an acceptable level of detail considering the available data, analysis, and associated uncertainties.. This process included technical considerations developed as part of the SMP for the rational and orderly implementation of stormwater projects in a way that maximizes benefits and effectively reduces flooding risk, as well as funding considerations, with the intent of providing the maximum investment based on the SMP prioritized capital projects.

The CIP is divided in three main sections:

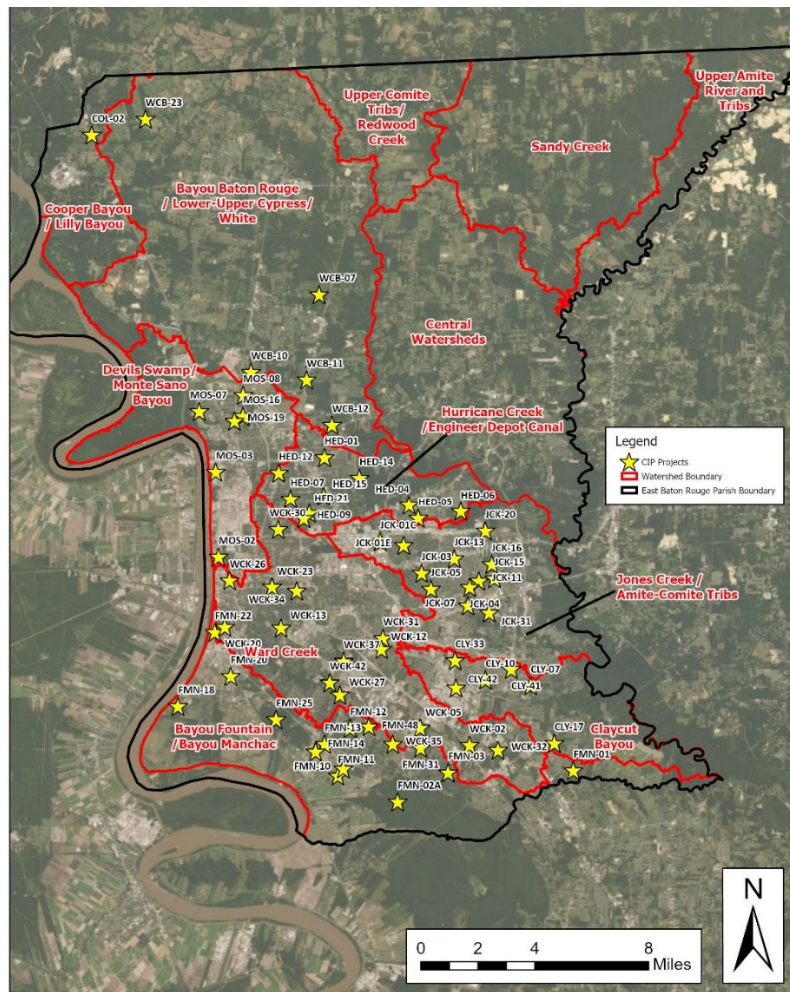
1. The **CIP Project Prioritization Process and 20-year Program**, which details the Stormwater CIP project prioritization framework and provides the prioritized list of Stormwater CIP project to be delivered over the next 20 years.

2. The **Stormwater CIP Funding**, which describes potential funding sources that will support implementation of the Stormwater CIP.
3. **Appendices:**
 - a. Appendix A: CIP Prioritization Scores
 - b. Appendix B: Federal and State Grant Opportunities Summary

2. CIP Prioritization Process and 20-year Program

The SMP utilized a project development approach that included the development of concept design, cost estimates, benefit cost analysis, project scoring, and a project summary sheet. An initial list of 115 projects were identified and evaluated. The project scoring process focused on the technical merits of each project that included, among other criteria, benefit cost ratio (BCR), resiliency, impact to critical infrastructure, maintenance considerations, and water quality benefits. Projects could receive a score of up to 100 points based on the evaluation criteria. See the SMP¹ for additional details on the scoring methodology and for the full list of projects evaluated.

In coordination with the City-Parish, the list of SMP projects was narrowed to a total of 63 projects recommended for inclusion in the Stormwater CIP, at an estimated cost of \$1.05 billion (2022 dollars) for planning, permitting, engineering and construction, but excluding future annual operation and maintenance costs (O&M) and rehabilitation, renewal and replacement (RR&R) costs. See Figure 2-1 for the map of the projects.



¹ East Baton Rouge Stormwater Master Plan website, <https://stormwater.brla.gov/>.

Figure 2-1: EBR CIP Projects

The SMP also included other programmatic investments estimated to cost \$650 million such as floodplain preservation, completion of asset inventory work and other items. These investments are not included in the CIP, but they will factor into the overall long-term funding needs of the SMP and the funding strategy for the City-Parish to implement the full SMP. These are described in Section 7.3 Programmatic Strategies, of the SMP.

2.1. CIP Prioritization Framework

The prioritization framework for the Stormwater CIP included three main categories described below in the following sections:

1. **Project readiness** (40% of CIP prioritization score)
2. **Equity** (30% of prioritization score)
3. **SMP technical score** (30% of prioritization score)

These categories include different factors or criteria that were evaluated individually for each category. A score was allocated to each criterion in the category such that the overall score for the category could total 100 points. A weighting factor (as shown above) was applied to each category to get a final CIP score. The Project Readiness was given the highest weight as it is anticipated that these could be implemented sooner. The other two categories were given equal weight as both are equally important. Once these criteria were applied and a score finalized, the CIP projects were then ranked from 100 to 0, with 100 being the maximum score and the highest priority.

2.1.1. Project Readiness

Readiness is determined by how a project is on track to get to construction. This category is comprised of five criteria: land acquisition, interjurisdictional coordination, permitting requirements, utility conflicts, and technical complexity. These criteria were ranked between Low (0 points), Medium (10 points), High (20 points) and, in combination, the project “readiness” score ranged between 0 and 100. A score of “0” means that the none of the readiness criteria were met and the project would not be ready for implementation in the short-term. A score of “100” means that all criteria for project readiness were met and the project could be advanced and delivered in the short-term.

The project readiness criteria are described as follows:

1. **Land acquisition** – measures how many parcels would be required for project implementation:
 - a. Low (0 points) – project requires acquisition of more than five parcels
 - b. Medium (10 points) – project requires one to five parcels
 - c. High (20 points) – no land acquisition or easements are required for project implementation
2. **Interjurisdictional coordination** – measures the extent of coordination with other entities, public or private, outside the Parish required for project implementation.
 - a. Low (0 points) – coordination shall be required with more than two entities
 - b. Medium (10 points) – coordination shall be required with one to two entities
 - c. High (20 points) – no interjurisdictional coordination required

3. **Permitting requirements** – measures the complexity of permitting requirements.
 - a. Low (0 points) – project with large impacts, requiring multiple and non-standard permits
 - b. Medium (10 points) – project with small impacts requiring standard permits
 - c. High (20 points) – project has no impacts or only require standard permits
4. **Utility conflicts** – measures the extent of potential utility conflicts
 - a. Low (0 points) – project with many or complicated utility impacts
 - b. Medium (10 points) – project with some utility impacts
 - c. High (20 points) – project has minimal or no utility impacts
5. **Technical complexity** – measures the complexity of design and construction
 - a. Low (0 points) – complex technical project requiring additional analysis and extensive design.
 - b. Medium (10 points) – medium complexity requiring some additional analysis and non-standard or multiple standard design features.
 - c. High (20 points) – standard straight forward project requiring limited or no additional detailed analysis.

Project readiness helps determine the CIP project schedule. The higher the project readiness score, the sooner these projects can be implemented should funding become available. Projects can be divided into three delivery “buckets”:

- **Shovel ready** – Low complexity, high readiness projects for which construction can start **within 24-48 months**.
- **Mid-term** – Medium complexity projects for which design, permitting, and land acquisition can be achieved in the short-term and construction can start **within four to ten years**.
- **Long-term** – Highly complex and low readiness projects that are not expected to be ready for construction and implementation for **more than ten years**.

2.1.2. Equity

“Equity” as defined under Executive Order (EO) 13985² means the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment, such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality.” The CIP project prioritization included identifying which projects are within the geographic areas of:

- persistent poverty – as defined by USDOT for its funding, refers to any county that has consistently had greater than or equal to 20% of the population living in poverty during the last 30-year period, as measured by the 1990 and 2000 decennial census and the most recent annual

² Executive Order (EO) 13985: Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (January 20, 2021). Available at <https://www.federalregister.gov/documents/2021/01/25/2021-01753/advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government>. Last accessed on 11/21/2022.

Small Area Income and Poverty Estimates as estimated by the Bureau of the Census; any census tract with a poverty rate of at least 20% as measured by the 2014–2018 5-year data series available from the American Community Survey of the Bureau of the Census; and any U.S. Territory.

- low and moderate income (LMI) – areas where 50% or more residences in the area has low to moderate income (i.e., 80% or less of the area median income).
- opportunity zones - economically distressed communities, defined by individual census tract, nominated by America’s governors, and certified by the U.S. Secretary of the Treasury via his delegation of that authority to the Internal Revenue Service.
- historically disadvantaged communities – as defined by USDOT for its funding programs, these include certain qualifying census tracts, any tribal land, or any territory or possession of the United States.

Incorporating equity as a prioritization criterion will allow for investments to be implemented in vulnerable and higher risk areas where project benefits may provide greater impact and better align the requirements of available Federal grants and programs. The equity score ranges from 0 to 100, where each of the types of equity zones receives 25 points. A project with an equity score of zero falls outside any of these geographical areas. A project receiving 100 points would be in an area that meets all four equity geographical definitions.

2.1.3. SMP Technical Score

The SMP technical score was used in the prioritization process to measure the project’s technical merits. These scores focused on a data-driven approach to analyze and prioritize each project. This evaluation considered both economic and non-economic data and was roughly based on the Louisiana Watershed Initiative (LWI) Round 1 project applications criteria and scoring process.³ The following are the scoring factors evaluated to get to the final list of prioritized recommended projects for the SMP:

- Base Benefit-Cost Ratio
- Loss of Function/Income
- Street Flooding
- Resiliency to Climate Change
- Upstream/Downstream Impact
- Impact to Critical Infrastructure
- Redundancy
- Stress/Anxiety and Lost Productivity
- Social Vulnerability
- Preservation of Natural Area
- Water Quality
- Effectiveness
- Maintenance
- Operations

³ Louisiana Watershed Initiative (LWI) website, <https://watershed.la.gov/>..

Most of these categories were given a score based on qualitative “yes/no” criteria, while other categories were assigned a range for score assignments. Overall scoring was determined based on the weight of importance of each of the categories listed above, with a maximum score of 100 points. The methodology, scoring factor and range criteria are further described in the SMP. The SMP score was used as a factor in the CIP scoring. Since these projects were previously evaluated on technical merit, their scores ranged from 20 to 85.

2.2. Stormwater CIP Prioritization List and 20-year Program

Weighting factors were applied to each category to obtain the combined score on Project Readiness, Equity, and SMP Technical Score which resulted in prioritization scores, with the potential maximum score of 100 points. This scoring framework provides the initial step in organizing projects. Table 2-1 provides the list of prioritized Stormwater CIP projects, and Figure 2-2 shows the geographical distribution of the project within the City-Parish. **Appendix A** includes tables that detail the project CIP prioritization scoring. Project summary sheets with more detail are provided in the watershed appendices of the SMP.

Table 2-1: List of Prioritized Project by CIP Score

Project Number	Short Project Description	Project Cost	CIP Score
FMN-11	Old Hermitage Pkwy. Overland Flow Route Improvements	\$217,300	83
HED-04	Westerly Ave. Subsurface System Improvements	\$1,773,500	79
MOS-16	Rosenwald Rd. Channel and Culvert Improvements	\$705,900	79
WCB-07	Bentley Dr. Culvert and Channel Improvements	\$487,400	78
MOS-07	University Place Overland Flow Route Improvements	\$1,942,100	77
MOS-19	Railroad and Scotland Ave. Channel and Culvert Improvements	\$771,200	77
HED-09	Elm Dr. Subsurface System Improvements	\$3,231,100	75
HED-14	Dickens Dr. and Lanier Dr. Culvert Improvements	\$155,200	74
FMN-31	Kathleen Dr. Subsurface System Improvements	\$2,241,200	72
MOS-08	Scotland Ave. and Railroad Culvert Improvements	\$3,512,300	70
HED-12	Plank Rd. Closure Structure	\$951,900	67
WCB-12	Hooper Rd. Culvert Improvements	\$580,400	66
MOS-03	Monte Sano Grade Control Structure Repair	\$331,600	63
FMN-48	Patrick Dr. Subsurface System Improvements, Bluebonnet Rd. Detention	\$1,397,700	62
JCK-20	Lively Bayou Detention S Choctaw Dr. to Sunnyhill Ave.	\$24,804,300	60
CLY-41	Allegheny Ct. Overland Flow Route Improvements	\$201,900	57
HED-07	Prescott Rd. Detention and Channel Improvements	\$20,303,000	57
WCB-10	Thomas Rd. Channel and Culvert Improvements	\$2,037,200	55

Table 2-1: List of Prioritized Project by CIP Score

Project Number	Short Project Description	Project Cost	CIP Score
FMN-22	North Bayou Fountain Detention, Channel Improvements, and Pump Station	\$7,770,600	52
JCK-16	Lively Bayou north of S. Flannery Rd. Channel Improvements and detention (Combine w/ JCK-04 and JCK-11)	\$40,728,600	51
MOS-02	Capital Lake Pump Station Improvements	\$4,283,400	50
FMN-14	Innovation Park Dr. Detention, Channel Improvements, Burbank Dr Culvert Improvement	\$22,785,300	49
COL-02	Samuels Rd. (Hwy. 61) Culvert Improvements	\$495,000	48
WCB-23	Plains Port Hudson Rd. Culvert Improvements	\$403,600	48
WCK-34	Ward Creek Government St. to Claycut Rd. Channel Improvements	\$9,821,600	48
WCK-35	Perkins-Highland Channel and Culvert Improvements	\$2,973,400	48
FMN-18	Riverbend Detention and Channel Improvements, and Pump Station	\$30,903,800	47
FMN-20	LSU Golf Course Regional Detention, RR Culvert Improvements	\$47,786,500	47
HED-01	Glen Oaks East Subsurface System Improvements	\$25,999,900	47
HED-06	Park Forest Overland Flow Route Improvements	\$2,999,000	47
CLY-07	Confederate Ave. Subsurface System Improvements	\$3,163,400	46
FMN-10	Parkway Dr. Channel Improvements and Detention, Burbank Dr. Culvert Improvements	\$38,964,500	45
CLY-10	Westridge Dr. Subsurface System Improvements	\$816,700	44
FMN-03	Fulwar Skipwith Rd. near Highland Rd and Pecue Ln. Culvert Improvements	\$588,700	44
HED-05	Mammoth Ave. Overland Flow Route and Subsurface System Improvements	\$8,575,500	44
HED-21	Howell Park Detention and Channel Improvements	\$53,419,400	44
WCK-27	Dawson Creek Kenilworth to Staring Ln. Channel Improvements	\$11,002,800	44
FMN-12	Worthington Lake Spillway and Subsurface System Improvements	\$254,500	43
WCB-11	Channel Improvements along Inflowing Tributaries to Lower Cypress	\$2,895,300	43
WCK-02	Old Ward Creek Bridge Improvements (Combine w/ WCK-32, WCK-31 and WCK-37)	\$28,374,000	43
WCK-12	Drusilla Dr. Subsurface System Improvements	\$3,658,700	42
WCK-23	Government St. and Cherokee St Subsurface System Improvements	\$31,245,900	41
WCK-26	North Blvd. Subsurface System Improvements	\$14,680,100	41

Table 2-1: List of Prioritized Project by CIP Score

Project Number	Short Project Description	Project Cost	CIP Score
HED-15	Airline Hwy. near Prescott Rd. Culvert Improvements and Detention	\$7,962,900	40
JCK-11	S. Flannery Rd. Bridge and Channel Improvements (combine w/ JCK-04 and JCK-16)	\$6,721,400	40
WCK-37	Ward Creek at Burden Channel Improvements and Detention (combine w/ WCK-32, WCK-02, WCK-31)	\$21,623,000	40
JCK-31	Forest Park Subsurface System Improvements	\$1,339,900	39
JCK-01E	Jones Creek North of Florida Blvd. Channel Improvements (combine w/ JCK-05 and JCK-03)	\$21,337,700	38
CLY-17	Elliot Acres Overland Flow Route Improvements	\$803,400	36
CLY-42	Airline Hwy. Channel Improvements near Claycut	\$1,952,100	35
JCK-01C	Cortana Regional Detention	\$80,070,700	34
WCK-30	Ward Creek 38th St. Subsurface System Improvements	\$25,617,600	34
WCK-31	Jefferson Hwy. at I-12 Bridge Improvements (combine w/ WCK-32, WCK-02, and WCK-37)	\$44,837,200	31
JCK-03	Jones Creek Florida Blvd. to Goodwood Blvd. Channel Improvements (Combine w/ JCK-05 and JCK-031E)	\$15,060,700	27
CLY-33	Jacks Bayou Channel Improvements	\$1,536,700	26
JCK-07	I-12 and S. Harrells Ferry Rd. Bridge Improvements	\$95,809,200	26
WCK-32	Ward Creek Diversion Canal Improvements (Combine w/ WCK-02, WCK-31 and WCK-37)	\$30,087,100	25
WCK-20	Corporation Canal Diversion and Pump Station	\$51,665,600	24
WCK-13	Dawson Creek I-10 to Perkins Channel Improvements	\$25,518,700	23
JCK-04	Lively Bayou Old Hammond Hwy. to S. Flannery Rd Channel Improvements (combine w/ JCK-11 and JCK-16)	\$9,116,100	22
JCK-13	Lively Bayou Diversion to Jones Creek Tributary	\$15,725,300	22
JCK-15	Lively Bayou Diversion to Honey Cut Bayou	\$34,563,300	20
JCK-05	Jones Creek Goodwood Blvd. to Sherwood Forest Blvd. Channel Improvements (combined w/ JCK-03 and JCK-01E)	\$5,792,800	15

As the City-Parish identifies funding for these projects, the Stormwater CIP prioritized project list can be divided into three tiers. These tiers are defined based on the prioritization score and project costs, assuming the Parish will invest about \$60-\$70 million annually to deliver all projects in the Stormwater CIP over the next 20 years.

1. CIP Tier 1 = Years 1 through 5
2. CIP Tier 2 = Years 6 through 10
3. CIP Tier 3 = Years 11 through 20

The City-Parish should review and adjust the project prioritization based on other factors that were not measured within the scoring framework. For example, project dependency may require some optimization of the projects assigned to the CIP Tiers. Project dependency is when a project is dependent on other project(s) to be completed first. For example, a channel improvement project may cause downstream impacts, but a nearby detention project may mitigate these impacts. Although the detention project could be constructed based on prioritization scoring, the channel improvement project cannot be constructed until after the detention project is constructed, regardless of the prioritization scoring. These projects are considered bundled. “Bundled/phased” projects should be accommodated within the same CIP Tier and listed in order of implementation.

Table 2-2 provides the projects listed by Tier. Figure 2-2 is a map of the projects based on their proposed Tier.

Table 2-2: List of Prioritized Projects by Tier

Project Number	Short Project Description	Project Cost	Readiness	CIP Score	CIP Tier
FMN-11	Old Hermitage Pkwy Overland Flow Route Improvements	\$217,300	100	83	Tier 1
MOS-16	Rosenwald Rd Channel and Culvert Improvements	\$705,900	90	79	Tier 1
HED-04	Westerly Ave Subsurface System Improvements	\$1,773,500	70	79	Tier 1
WCB-07	Bentley Drive Culvert and Channel Improvements	\$487,400	100	78	Tier 1
MOS-07	University Place Overland Flow Route Improvements	\$1,942,100	70	77	Tier 1
MOS-19	Railroad and Scotland Ave Channel and Culvert Improvements	\$771,200	70	77	Tier 1
HED-09	Elm Dr Subsurface System Improvements	\$3,231,100	70	75	Tier 1
HED-14	Dickens Dr and Lanier Dr Culvert Improvements	\$155,200	100	74	Tier 1
FMN-31	Kathleen Dr Subsurface System Improvements	\$2,241,200	80	72	Tier 1
MOS-08	Scotland Ave and Railroad Culvert Improvements	\$3,512,300	50	70	Tier 1
HED-12	Plank Rd Closure Structure	\$951,900	50	67	Tier 1
WCB-12	Hooper Rd Culvert Improvements	\$580,400	100	66	Tier 1
MOS-03	Monte Sano Grade Control Structure Repair	\$331,600	60	63	Tier 1
FMN-48	Patrick Dr Subsurface System Improvements, Bluebonnet Rd Detention	\$1,397,700	70	62	Tier 1
JCK-20	Lively Bayou Detention S Choctaw Dr. to Sunnyhill Ave	\$24,804,300	70	60	Tier 1
CLY-41	Allegheny Ct Overland Flow Route Improvements	\$201,900	100	57	Tier 1
HED-07	Prescott Rd Detention and Channel Improvements	\$20,303,000	60	57	Tier 1
WCB-10	Thomas Rd Channel and Culvert Improvements	\$2,037,200	50	55	Tier 1

Table 2-2: List of Prioritized Projects by Tier

Project Number	Short Project Description	Project Cost	Readiness	CIP Score	CIP Tier
FMN-22	North Bayou Fountain Detention, Channel Improvements, and Pump Station	\$7,770,600	10	52	Tier 1
MOS-02	Capital Lake Pump Station Improvements	\$4,283,400	60	50	Tier 1
FMN-14	Innovation Park Dr Detention, Channel Improvements, Burbank Dr Culvert Improvement	\$22,785,300	50	49	Tier 1
WCB-23	Plains Port Hudson Rd Culvert Improvements	\$403,600	100	48	Tier 1
COL-02	Samuels Rd (Hwy 61) Culvert Improvements	\$495,000	90	48	Tier 1
WCK-35	Perkins-Highland Channel and Culvert Improvements	\$2,973,400	80	48	Tier 1
HED-06	Park Forest Overland Flow Route Improvements	\$2,999,000	80	47	Tier 1
CLY-07	Confederate Ave Subsurface System Improvements	\$3,163,400	80	46	Tier 1
FMN-10	Parkway Dr Channel Improvements and Detention, Burbank Dr Culvert Improvements	\$38,964,500	50	45	Tier 1
FMN-03	Fulwar Skipwith Rd near Highland Rd and Pecue Ln Culvert Improvements	\$588,700	90	44	Tier 1
CLY-10	Westridge Drive Subsurface System Improvements	\$816,700	80	44	Tier 1
HED-05	Mammoth Ave Overland Flow Route and Subsurface System Improvements	\$8,575,500	60	44	Tier 1
FMN-12	Worthington Lake Spillway and Subsurface System Improvements	\$254,500	80	43	Tier 1
WCB-11	Channel Improvements along Inflowing Tributaries to Lower Cypress	\$2,895,300	50	43	Tier 1
WCK-12	Drusilla Dr Subsurface System Improvements	\$3,658,700	70	42	Tier 1
HED-15	Airline Hwy near Prescott Rd Culvert Improvements and Detention	\$7,962,900	50	40	Tier 1
JCK-31	Forest Park Subsurface System Improvements	\$1,339,900	80	39	Tier 1
CLY-17	Elliot Acres Overland Flow Route Improvements	\$803,400	60	36	Tier 1
CLY-42	Airline Hwy Channel Improvements near Claycut	\$1,952,100	70	35	Tier 1
CLY-33	Jacks Bayou Channel Improvements	\$1,536,700	50	26	Tier 1
WCK-34	Ward Creek Government Street to Claycut Rd Channel Improvements	\$9,821,600	40	48	Tier 2
HED-01	Glen Oaks East Subsurface System Improvements	\$25,999,900	40	47	Tier 2
WCK-27	Dawson Creek Kenilworth to Staring Ln Channel Improvements	\$11,002,800	20	44	Tier 2
WCK-32 ^a	Ward Creek Diversion Canal Improvements	\$30,087,100	0	25	Tier 2
WCK-02 ^a	Old Ward Creek Bridge Improvements	\$28,374,000	60	43	Tier 2
WCK-31 ^a	Jefferson Hwy at I-12 Bridge Improvements	\$44,837,200	0	31	Tier 2

Table 2-2: List of Prioritized Projects by Tier

Project Number	Short Project Description	Project Cost	Readiness	CIP Score	CIP Tier
WCK-37 ^a	Ward Creek at Burden Channel Improvements and Detention	\$21,623,000	20	40	Tier 2
JCK-04 ^b	Lively Bayou Old Hammond Hwy to S Flannery Rd Channel Improvements	\$9,116,100	0	22	Tier 2
JCK-11 ^b	S Flannery Rd Bridge and Channel Improvements	\$6,721,400	40	40	Tier 2
JCK-16 ^b	Lively Bayou north of S Flannery Rd Channel Improvements and detention	\$40,728,600	0	51	Tier 2
FMN-20	LSU Golf Course Regional Detention, RR Culvert Improvements	\$47,786,500	20	47	Tier 3
FMN-18	Riverbend Detention and Channel Improvements, and Pump Station	\$30,903,800	10	47	Tier 3
HED-21	Howell Park Detention and Channel Improvements	\$53,419,400	30	44	Tier 3
WCK-23	Government St and Cherokee St Subsurface System Improvements	\$31,245,900	30	41	Tier 3
WCK-26	North Blvd Subsurface System Improvements	\$14,680,100	30	41	Tier 3
WCK-30	Ward Creek 38th St Subsurface System Improvements	\$25,617,600	30	34	Tier 3
JCK-01C	Cortana Regional Detention	\$80,070,700	20	34	Tier 3
JCK-07	I-12 and S Harrells Ferry Rd Bridge Improvements	\$95,809,200	10	26	Tier 3
WCK-20	Corporation Canal Diversion and Pump Station	\$51,665,600	0	24	Tier 3
WCK-13	Dawson Creek I-10 to Perkins Channel Improvements	\$25,518,700	0	23	Tier 3
JCK-13	Lively Bayou Diversion to Jones Creek Tributary	\$15,725,300	10	22	Tier 3
JCK-15	Lively Bayou Diversion to Honey Cut Bayou	\$34,563,300	0	20	Tier 3
JCK-05 ^c	Jones Creek Goodwood Blvd to Sherwood Forest Blvd Channel Improvements	\$5,792,800	0	15	Tier 3
JCK-03 ^c	Jones Creek Florida Blvd to Goodwood Blvd Channel Improvements	\$15,060,700	0	27	Tier 3
JCK-01E ^c	Jones Creek North of Florida Blvd Channel Improvements	\$21,337,700	0	38	Tier 3

^aBundle A: WCK-02, WCK-31, WCK-32, WCK-37

^bBundle B: JCK-04, JCK-11, JCK-16

^cBundle C: JCK-01E, JCK-03, JCK-05

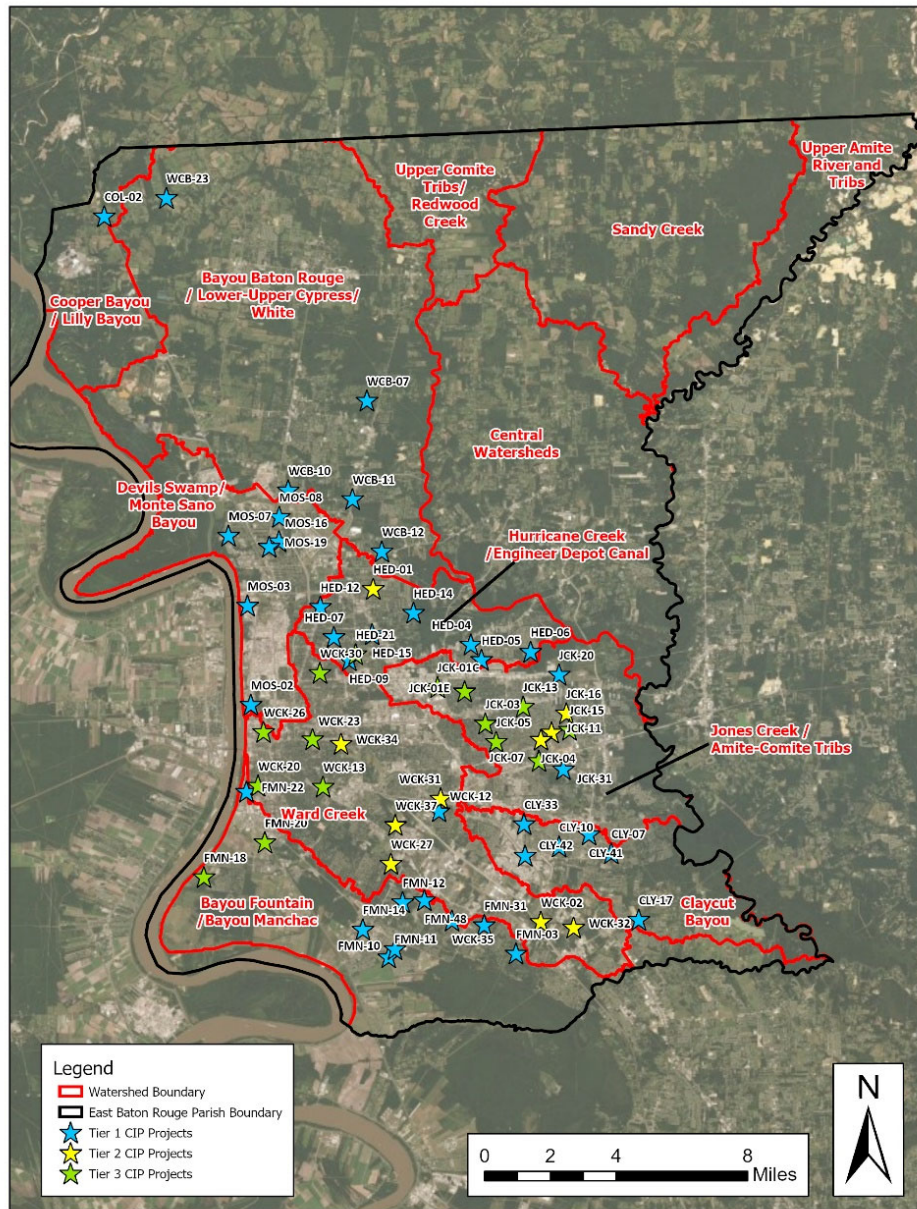


Figure 2-2: CIP Project Locations by Tier

State and federal grant opportunities are available for which many of these projects could be eligible. Those projects that meet various grant funding opportunities have been identified, thus potentially moving them up in the Tier ranking. Grant funding is discussed in more detail in **Section 3**.

In addition, projects scoring low in project readiness can be moved to the next CIP Tier to capture the actual timing for construction/implementation. For major capital investment, the City-Parish may consider conducting project development activities in the short- or mid-term, even if implementation is scheduled in later years of the CIP.

3. Stormwater CIP Funding

Funding options for the Stormwater CIP described in this section include:

- Federal/state grants,
- Local funding (through either additional general fund allocations or a dedicated revenue source), and
- Loans and bonds

3.1. Current Stormwater Funding

Currently, the City-Parish operates a \$982 million budget using several funds.⁴ In 2021, the General Fund made up 32% of the total City-Parish budget and accounts for all revenues except those placed in Special funds. Primary revenue sources for the General Fund include local sales and use taxes, property taxes, gross receipts, business taxes, gaming taxes, and other taxes and fees. Revenues for Special funds come from restricted or committed revenues (such as dedicated taxes, user fees or grants) for specific purposes. For instance, capital projects involving the City-Parish sewer system are paid for out of Comprehensive Sewerage System Funds (a Special Fund) which draw their revenue from pay-as-you go funding in the form of sewer user fees, sewer sales taxes, and sewer impact fees.

According to City-Parish Annual Operating Budgets and Annual Comprehensive Financial Reports (ACFR), there is not a dedicated funding source for stormwater capital improvements. Instead, stormwater projects in East Baton Rouge are currently funded from City-Parish budgets allocated to the Department of Transportation and Drainage and the Department of Maintenance through annual appropriations from the General Fund. Departmental functions are listed below:

- **Department of Transportation and Drainage** – Oversees transportation-related functions (e.g., traffic engineering, traffic operations, traffic signal and sign installation and maintenance, parking meter maintenance) including support engineering services for capital improvements programs involving highways, drainage, and flood control. Detailed information about historical expenditures specifically for drainage and flood control was not separately identified because costs for those activities are not broken down separately in the Annual Operation Budget and ACFR.
- **Drainage Maintenance Division** (a division within the Department of Maintenance)– Responsible for roadside ditch digging and off-road canal excavation, canal debris removal, inspections of roadside ditches and canals, vector truck operations, storm drain and catch basin repair concrete work, erosion remediation, and surveying land for property lines. The average annual budget for drainage maintenance is \$8.3 million. The current funding level does not adequately account for the drainage maintenance backlog. The Asset Management Plan developed as part of the SMP provides recommendations to address the current subsurface system maintenance issues and suggestion for long-term maintenance. The Parish has also dedicated over \$40 million in American Rescue Plan Act (ARPA) funds in 2021 and 2022 to help address the backlog of drainage maintenance.

⁴ 2021 Annual Operating Budget

- 2017 Actual budget: \$8.1M
 - 2018 Actual budget: \$8.3M
 - 2019 Actual budget: \$7.9 M
 - 2020 Actual budget: \$8.8M
 - 2021 Proposed budget: \$8.4M
- **Department of Environmental Services** – This department has the responsibility for meeting the EPA National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit requirements. The intent of this permit is to ensure compliance with best management practices to manage the water quality of the stormwater system. Although the SMP focus and overarching goal is Flood Risk reduction, there are components that satisfy requirements of the MS4 Permit, such as a map of the stormwater/drainage system and an asset management plan for maintenance and operations of the system.
 - **Department of Development** – This department is responsible for construction permit issuance and code enforcement, including development codes and ordinances related to drainage and stormwater. They have an average annual operating budget of \$8 million that includes review of developments and code enforcement, of which stormwater constitutes a small share.

3.2. Federal and State Grants

Grant programs are available at Federal and state levels, most of which require the City-Parish or state agency to apply for those funds and compete with other applicants. While passage of the Infrastructure Investment and Jobs Act (IIJA, also known as the Bipartisan Infrastructure Law/BIL) in November 2021 increased the availability of infrastructure funds, competition remains high, and grantees need to continue developing strategies and plans that will place resources into pursuing grant opportunities for competitive, fundable projects. For the Stormwater CIP, several types of Federal and state grants were identified (at a high level) that have potential for providing funding to some CIP projects based on eligible project types and evaluation criteria. Details on grant options and a summary of each opportunity that could potentially apply to CIP projects is included in **Appendix B**.

As grant opportunities become available, a detailed screening process for grant potential is required to identify which CIP projects will compete well. For example, if pursuing Federal grants, the screening should include criteria currently used under IIJA/BIL, some of which has already been developed as part of the SMP and the CIP. For illustrative purposes, some of these grant screening criteria may include:

1. Project size (to justify level of effort and cost of developing grant application)
2. Benefit cost ratio (BCR) (greater than 1.0, where monetized project benefits are greater than estimated project costs)
3. Resiliency and climate change - project determined to be resilient under projected changing climate conditions.
4. Social vulnerability – project is located within areas identified under the equity criterion noted above and support current policies for Federal grant evaluation.
5. Project readiness – How ready project is for construction

A preliminary evaluation correlating projects to grant opportunities was completed based on the published criteria for each grant opportunity. **Appendix B** includes a table that correlates projects against potential grant opportunities. It is noted that many grant opportunities are for larger infrastructure projects in which stormwater could be a component. The City-Parish will need to collaborate internally to identify those projects in which a stormwater component could be incorporated with the grant.

3.3. Local Funding

Local funding will be required to support implementation of the Stormwater CIP, including the need for providing matching funds for Federal and state grants. The source (or sources) of revenue and funding to implement these projects will be determined by the City-Parish.

3.4. Loans and Bonds

Loans and bonds comprise the largest categories of infrastructure finance. Debt instruments can be project-specific or support a stormwater investments program. While advantageous in terms of providing upfront money for capital investments, there is an added cost of debt issuance and interest. In addition, loans and bonds require a dedicated and stable revenue source for repayment.

There are a few low interest Federal loan programs that could be used (given the availability of a revenue source for repayment) to support the Stormwater CIP and leverage available funding sources in the future.

The level of dedicated local funds and how much is allocated to pay-as-you-go versus debt service will ultimately determine the Parish's financial capacity to implement the CIP.

A large red flag with the words "Baton Rouge" in white cursive script. On the left side of the flag is a blue shield featuring a white fleur-de-lis and a white castle. The flag is waving against a bright, hazy sky with a yellow vertical bar on the left edge.

*Baton
Rouge*

APPENDIX A

CIP Prioritization Scores

APPENDIX A. CIP Prioritization Scores and Tiers

1. Table A-1: CIP Scoring by Criteria
2. Table A-2: Readiness Scoring
3. Table A-3: Equity Scoring

Table A-1: CIP Scoring by Criteria

Number	Short Project Description	Project Type	Project Cost	SMP Technical Score (30%)	Equity Score (30%)	Readiness Score (40%)	CIP Score
FMN-11	Old Hermitage Pkwy Overland Flow Route Improvements	Channel and Subsurface System	\$217,300	69	75	100	83
HED-04	Westerly Ave Subsurface System Improvements	Subsurface System and Overflow Route	\$1,773,500	69	100	70	79
MOS-16	Rosenwald Rd Channel and Culvert Improvements	Culvert	\$705,900	43	100	90	79
WCB-07	Bentley Drive Culvert and Channel Improvements	Culvert	\$487,400	51	75	100	78
MOS-07	University Place Overland Flow Route Improvements	Roadside Ditches	\$1,942,100	63	100	70	77
MOS-19	Railroad and Scotland Ave Channel and Culvert Improvements	Culvert and Subsurface System Capacity	\$771,200	62	100	70	77
HED-09	Elm Dr Subsurface System Improvements	Channel and Subsurface System	\$3,231,100	58	100	70	75
HED-14	Dickens Dr and Lanier Dr Culvert Improvements	Channel	\$155,200	37	75	100	74
FMN-31	Kathleen Dr Subsurface System Improvements	Subsurface System and Overflow Route	\$2,241,200	34	100	80	72
MOS-08	Scotland Ave and Railroad Culvert Improvements	Subsurface System, Overflow Route, and Detention	\$3,512,300	66	100	50	70
HED-12	Plank Rd Closure Structure	Closure Structure	\$951,900	57	100	50	67
WCB-12	Hooper Rd Culvert Improvements	Culvert	\$580,400	38	50	100	66
MOS-03	Monte Sano Grade Control Structure Repair	Grade Control	\$331,600	31	100	60	63
FMN-48	Patrick Dr Subsurface System Improvements, Bluebonnet Rd Detention	Culvert and Subsurface System	\$1,397,700	37	75	70	62
JCK-20	Lively Bayou Detention S Choctaw Dr. to Sunnyhill Ave	Channel and Detention	\$24,804,300	57	50	70	60
CLY-41	Allegheny Ct Overland Flow Route Improvements	Subsurface System and Overflow Route	\$201,900	55	0	100	57

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Number	Short Project Description	Project Type	Project Cost	SMP Technical Score (30%)	Equity Score (30%)	Readiness Score (40%)	CIP Score
HED-07	Prescott Rd Detention and Channel Improvements	Channel and Detention	\$20,303,000	61	50	60	57
WCB-10	Thomas Rd Channel and Culvert Improvements	Clearing and Snagging	\$2,037,200	65	50	50	55
FMN-22	North Bayou Fountain Detention, Channel Improvements, and Pump Station	Detention and Channel	\$7,770,600	59	100	10	52
JCK-16	Lively Bayou north of S Flannery Rd Channel Improvements and detention	Channel and Detention	\$40,728,600	69	100	0	51
MOS-02	Capital Lake Pump Station Improvements	Pump Station	\$4,283,400	62	25	60	50
FMN-14	Innovation Park Dr Detention, Channel Improvements, Burbank Dr Culvert Improvement	Detention and Subsurface System	\$22,785,300	46	50	50	49
COL-02	Samuels Rd (Hwy 61) Culvert Improvements	Culvert	\$495,000	39	0	90	48
WCB-23	Plains Port Hudson Rd Culvert Improvements	Culvert	\$403,600	26	0	100	48
WCK-34	Ward Creek Government Street to Claycut Rd Channel Improvements	Channel	\$9,821,600	56	50	40	48
WCK-35	Perkins-Highland Channel and Culvert Improvements	Channel	\$2,973,400	52	0	80	48
FMN-18	Riverbend Detention and Channel Improvements, and Pump Station	Detention and Pump Station	\$30,903,800	42	100	10	47
FMN-20	LSU Golf Course Regional Detention, RR Culvert Improvements	Detention and Channel	\$47,786,500	56	75	20	47
HED-01	Glen Oaks East Subsurface System Improvements	Subsurface System, Overflow Route, and Detention	\$25,999,900	53	50	40	47
HED-06	Park Forest Overland Flow Route Improvements	Channel and Detention	\$2,999,000	25	25	80	47
CLY-07	Confederate Ave Subsurface System Improvements	Subsurface System and Overflow Route	\$3,163,400	48	0	80	46

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Number	Short Project Description	Project Type	Project Cost	SMP Technical Score (30%)	Equity Score (30%)	Readiness Score (40%)	CIP Score
FMN-10	Parkway Dr Channel Improvements and Detention, Burbank Dr Culvert Improvements	Channel and Detention	\$38,964,500	57	25	50	45
CLY-10	Westridge Drive Subsurface System Improvements	Subsurface System and Overflow Route	\$816,700	40	0	80	44
FMN-03	Fulwar Skipwith Rd near Highland Rd and Pecue Ln Culvert Improvements	Culvert and Guardrail	\$588,700	26	0	90	44
HED-05	Mammoth Ave Overland Flow Route and Subsurface System Improvements	Overflow Route	\$8,575,500	40	25	60	44
HED-21	Howell Park Detention and Channel Improvements	Channelization	\$53,419,400	58	50	30	44
WCK-27	Dawson Creek Kenilworth to Staring Ln Channel Improvements	Channel	\$11,002,800	44	75	20	44
FMN-12	Worthington Lake Spillway and Subsurface System Improvements	Detention and Subsurface System	\$254,500	36	0	80	43
WCB-11	Channel Improvements along Inflowing Tributaries to Lower Cypress	Channel	\$2,895,300	53	25	50	43
WCK-02	Old Ward Creek Bridge Improvements	Culvert	\$28,374,000	38	25	60	43
WCK-12	Drusilla Dr Subsurface System Improvements	Buyouts, culvert capacity	\$3,658,700	20	25	70	42
WCK-23	Government St and Cherokee St Subsurface System Improvements	Subsurface System, Overflow Route, and Detention	\$31,245,900	72	25	30	41
WCK-26	North Blvd Subsurface System Improvements	Subsurface System	\$14,680,100	47	50	30	41
HED-15	Airline Hwy near Prescott Rd Culvert Improvements and Detention	Detention	\$7,962,900	41	25	50	40
JCK-11	S Flannery Rd Bridge and Channel Improvements	Channelization	\$6,721,400	56	25	40	40
WCK-37	Ward Creek at Burden Channel Improvements and Detention	Channel	\$21,623,000	56	50	20	40
JCK-31	Forest Park Subsurface System Improvements	Subsurface System and Overflow Route	\$1,339,900	22	0	80	39

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Number	Short Project Description	Project Type	Project Cost	SMP Technical Score (30%)	Equity Score (30%)	Readiness Score (40%)	CIP Score
JCK-01E	Jones Creek North of Florida Blvd Channel Improvements	Detention	\$21,337,700	52	75	0	38
CLY-17	Elliot Acres Overland Flow Route Improvements	Overflow Route	\$803,400	41	0	60	36
CLY-42	Airline Hwy Channel Improvements near Claycut	Subsurface System and Overflow Route	\$1,952,100	24	0	70	35
JCK-01C	Cortana Regional Detention	Channel	\$80,070,700	60	25	20	34
WCK-30	Ward Creek 38th St Subsurface System Improvements	Subsurface Capacity and Overflow Route	\$25,617,600	48	25	30	34
WCK-31	Jefferson Hwy at I-12 Bridge Improvements	Channel	\$44,837,200	52	50	0	31
JCK-03	Jones Creek Florida Blvd to Goodwood Blvd Channel Improvements	Detention and Levee	\$15,060,700	41	50	0	27
CLY-33	Jacks Bayou Channel Improvements	Channel and Overflow Route	\$1,536,700	21	0	50	26
JCK-07	I-12 and S Harrells Ferry Rd Bridge Improvements	Bridge and Approach Embankment	\$95,809,200	47	25	10	26
WCK-32	Ward Creek Diversion Canal Improvements	Channel	\$30,087,100	33	50	0	25
WCK-20	Corporation Canal Diversion and Pump Station	Diversion, Detention, and Pump Station	\$51,665,600	56	25	0	24
WCK-13	Dawson Creek I-10 to Perkins Channel Improvements	Channel Improvements	\$25,518,700	53	25	0	23
JCK-04	Lively Bayou Old Hammond Hwy to S Flannery Rd Channel Improvements	Channel	\$9,116,100	48	25	0	22
JCK-13	Lively Bayou Diversion to Jones Creek Tributary	Buyout, Channel, Flow Diversion	\$15,725,300	35	25	10	22
JCK-15	Lively Bayou Diversion to Honey Cut Bayou	Diversion	\$34,563,300	41	25	0	20
JCK-05	Jones Creek Goodwood Blvd to Sherwood Forest Blvd Channel Improvements	Channel	\$5,792,800	24	25	0	15

Table A-2: Readiness Scoring

Number	Short Project Description	Project Type	Land Acquisition	Interjurisdictional Coordination	Permitting Requirements	Utility Conflicts	Technical Complexity (Design and Construction)	Readiness Score
FMN-11	Old Hermitage Pkwy Overland Flow Route Improvements	Channel and Subsurface System	High	High	High	High	High	100
HED-04	Westerly Ave Subsurface System Improvements	Subsurface System and Overflow Route	Med	High	High	Med	Med	70
MOS-16	Rosenwald Rd Channel and Culvert Improvements	Culvert	High	High	High	Med	High	90
WCB-07	Bentley Drive Culvert and Channel Improvements	Culvert	High	High	High	High	High	100
MOS-07	University Place Overland Flow Route Improvements	Roadside Ditches	Med	High	High	Med	Med	70
MOS-19	Railroad and Scotland Ave Channel and Culvert Improvements	Culvert and Subsurface System Capacity	High	Med	Med	Med	High	70
HED-09	Elm Dr Subsurface System Improvements	Channel and Subsurface System	High	High	High	Low	Med	70
HED-14	Dickens Dr and Lanier Dr Culvert Improvements	Channel	High	High	High	High	High	100
FMN-31	Kathleen Dr Subsurface System Improvements	Subsurface System and Overflow Route	High	High	High	Med	Med	80
MOS-08	Scotland Ave and Railroad Culvert Improvements	Subsurface System, Overflow Route, and Detention	Med	Med	Med	Med	Med	50
HED-12	Plank Rd Closure Structure	Closure Structure	High	Low	Med	Med	Med	50
WCB-12	Hooper Rd Culvert Improvements	Culvert	High	High	High	High	High	100

Table A-2: Readiness Scoring

Number	Short Project Description	Project Type	Land Acquisition	Interjurisdictional Coordination	Permitting Requirements	Utility Conflicts	Technical Complexity (Design and Construction)	Readiness Score
MOS-03	Monte Sano Grade Control Structure Repair	Grade Control	High	Med	Med	Med	Med	60
FMN-48	Patrick Dr Subsurface System Improvements, Bluebonnet Rd Detention	Culvert and Subsurface System	Med	High	High	Med	Med	70
JCK-20	Lively Bayou Detention S Choctaw Dr. to Sunnyhill Ave	Channel and Detention	Med	High	Med	High	Med	70
CLY-41	Allegheny Ct Overland Flow Route Improvements	Subsurface System and Overflow Route	High	High	High	High	High	100
HED-07	Prescott Rd Detention and Channel Improvements	Channel and Detention	Med	High	Med	Med	Med	60
WCB-10	Thomas Rd Channel and Culvert Improvements	Clearing and Snagging	Med	Med	Med	Med	Med	50
FMN-22	North Bayou Fountain Detention, Channel Improvements, and Pump Station	Detention and Channel	Med	Low	Low	Low	Low	10
JCK-16	Lively Bayou north of S Flannery Rd Channel Improvements and detention	Channel and Detention	Low	Low	Low	Low	Low	0
MOS-02	Capital Lake Pump Station Improvements	Pump Station	High	Med	Med	Med	Med	60
FMN-14	Innovation Park Dr Detention, Channel Improvements, Burbank Dr Culvert Improvement	Detention and Subsurface System	Med	Med	Med	Med	Med	50
COL-02	Samuels Rd (Hwy 61) Culvert Improvements	Culvert	High	Med	High	High	High	90
WCB-23	Plains Port Hudson Rd Culvert Improvements	Culvert	High	High	High	High	High	100

Table A-2: Readiness Scoring

Number	Short Project Description	Project Type	Land Acquisition	Interjurisdictional Coordination	Permitting Requirements	Utility Conflicts	Technical Complexity (Design and Construction)	Readiness Score
WCK-34	Ward Creek Government Street to Claycut Rd Channel Improvements	Channel	Med	Med	Med	Low	Med	40
WCK-35	Perkins-Highland Channel and Culvert Improvements	Channel	High	High	High	Med	Med	80
FMN-18	Riverbend Detention and Channel Improvements, and Pump Station	Detention and Pump Station	Low	Low	Low	Med	Low	10
FMN-20	LSU Golf Course Regional Detention, RR Culvert Improvements	Detention and Channel	Med	Low	Low	Med	Low	20
HED-01	Glen Oaks East Subsurface System Improvements	Subsurface System, Overflow Route, and Detention	Med	High	Med	Low	Low	40
HED-06	Park Forest Overland Flow Route Improvements	Channel and Detention	Med	High	Med	High	High	80
CLY-07	Confederate Ave Subsurface System Improvements	Subsurface System and Overflow Route	High	Med	Med	High	High	80
FMN-10	Parkway Dr Channel Improvements and Detention, Burbank Dr Culvert Improvements	Channel and Detention	Med	Med	Med	Med	Med	50
CLY-10	Westridge Drive Subsurface System Improvements	Subsurface System and Overflow Route	High	High	High	Med	Med	80
FMN-03	Fulwar Skipwith Rd near Highland Rd and Pecue Ln Culvert Improvements	Culvert and Guardrail	High	Med	High	High	High	90

Table A-2: Readiness Scoring

Number	Short Project Description	Project Type	Land Acquisition	Interjurisdictional Coordination	Permitting Requirements	Utility Conflicts	Technical Complexity (Design and Construction)	Readiness Score
HED-05	Mammoth Ave Overland Flow Route and Subsurface System Improvements	Overflow Route	Med	High	Med	Med	Med	60
HED-21	Howell Park Detention and Channel Improvements	Channelization	Low	Med	Med	Med	Low	30
WCK-27	Dawson Creek Kenilworth to Staring Ln Channel Improvements	Channel	Low	Low	Low	Med	Med	20
FMN-12	Worthington Lake Spillway and Subsurface System Improvements	Detention and Subsurface System	High	High	High	Med	Med	80
WCB-11	Channel Improvements along Inflowing Tributaries to Lower Cypress	Channel	Med	Med	Med	Med	Med	50
WCK-02	Old Ward Creek Bridge Improvements	Culvert	High	Med	Med	Med	Med	60
WCK-12	Drusilla Dr Subsurface System Improvements	Buyouts, culvert capacity	High	High	High	Low	Med	70
WCK-23	Government St and Cherokee St Subsurface System Improvements	Subsurface System, Overflow Route, and Detention	Low	Med	High	Low	Low	30
WCK-26	North Blvd Subsurface System Improvements	Subsurface System	Low	Med	High	Low	Low	30
HED-15	Airline Hwy near Prescott Rd Culvert Improvements and Detention	Detention	Med	Med	Med	Med	Med	50
JCK-11	S Flannery Rd Bridge and Channel Improvements	Channelization	Med	Med	Med	Med	Low	40

Table A-2: Readiness Scoring

Number	Short Project Description	Project Type	Land Acquisition	Interjurisdictional Coordination	Permitting Requirements	Utility Conflicts	Technical Complexity (Design and Construction)	Readiness Score
WCK-37	Ward Creek at Burden Channel Improvements and Detention	Channel	Med	Low	Low	Med	Low	20
JCK-31	Forest Park Subsurface System Improvements	Subsurface System and Overflow Route	High	Med	High	Med	High	80
JCK-01E	Jones Creek North of Florida Blvd Channel Improvements	Detention	Low	Low	Low	Low	Low	0
CLY-17	Elliot Acres Overland Flow Route Improvements	Overflow Route	Med	High	Med	Med	Med	60
CLY-42	Airline Hwy Channel Improvements near Claycut	Subsurface System and Overflow Route	High	Med	Med	Med	High	70
JCK-01C	Cortana Regional Detention	Channel	Low	Med	Low	Med	Low	20
WCK-30	Ward Creek 38th St Subsurface System Improvements	Subsurface Capacity and Overflow Route	Low	Med	High	Low	Low	30
WCK-31	Jefferson Hwy at I-12 Bridge Improvements	Channel	Low	Low	Low	Low	Low	0
JCK-03	Jones Creek Florida Blvd to Goodwood Blvd Channel Improvements	Detention and Levee	Low	Low	Low	Low	Low	0
CLY-33	Jacks Bayou Channel Improvements	Channel and Overflow Route	Med	Med	Med	Med	Med	50
JCK-07	I-12 and S Harrells Ferry Rd Bridge Improvements	Bridge and Approach Embankment	Med	Low	Low	Low	Low	10
WCK-32	Ward Creek Diversion Canal Improvements	Channel	Low	Low	Low	Low	Low	0

Table A-2: Readiness Scoring

Number	Short Project Description	Project Type	Land Acquisition	Interjurisdictional Coordination	Permitting Requirements	Utility Conflicts	Technical Complexity (Design and Construction)	Readiness Score
WCK-20	Corporation Canal Diversion and Pump Station	Diversion, Detention, and Pump Station	Low	Low	Low	Low	Low	0
WCK-13	Dawson Creek I-10 to Perkins Channel Improvements	Channel Improvements	Low	Low	Low	Low	Low	0
JCK-04	Lively Bayou Old Hammond Hwy to S Flannery Rd Channel Improvements	Channel	Low	Low	Low	Low	Low	0
JCK-13	Lively Bayou Diversion to Jones Creek Tributary	Buyout, Channel, Flow Diversion	Low	Med	Low	Low	Low	10
JCK-15	Lively Bayou Diversion to Honey Cut Bayou	Diversion	Low	Low	Low	Low	Low	0
JCK-05	Jones Creek Goodwood Blvd to Sherwood Forest Blvd Channel Improvements	Channel	Low	Low	Low	Low	Low	0

Table A-3: Equity Scoring

Number	Short Project Description	Project Type	Historically Disadvantaged	Areas of Persistent Poverty	Opportunity Zones	Low to Moderate Income	Equity Score
FMN-11	Old Hermitage Pkwy Overland Flow Route Improvements	Channel and Subsurface System	Yes	Yes	No	Yes	75
HED-04	Westerly Ave Subsurface System Improvements	Subsurface System and Overflow Route	Yes	Yes	Yes	Yes	100
MOS-16	Rosenwald Rd Channel and Culvert Improvements	Culvert	Yes	Yes	Yes	Yes	100
WCB-07	Bentley Drive Culvert and Channel Improvements	Culvert	Yes	Yes	No	Yes	75
MOS-07	University Place Overland Flow Route Improvements	Roadside Ditches	Yes	Yes	Yes	Yes	100
MOS-19	Railroad and Scotland Ave Channel and Culvert Improvements	Culvert and Subsurface System Capacity	Yes	Yes	Yes	Yes	100
HED-09	Elm Dr Subsurface System Improvements	Channel and Subsurface System	Yes	Yes	Yes	Yes	100
HED-14	Dickens Dr and Lanier Dr Culvert Improvements	Channel	Yes	Yes	No	Yes	75
FMN-31	Kathleen Dr Subsurface System Improvements	Subsurface System and Overflow Route	Yes	Yes	Yes	Yes	100
MOS-08	Scotland Ave and Railroad Culvert Improvements	Subsurface System, Overflow Route, and Detention	Yes	Yes	Yes	Yes	100
HED-12	Plank Rd Closure Structure	Closure Structure	Yes	Yes	Yes	Yes	100
WCB-12	Hooper Rd Culvert Improvements	Culvert	No	Yes	No	Yes	50
MOS-03	Monte Sano Grade Control Structure Repair	Grade Control	Yes	Yes	Yes	Yes	100
FMN-48	Patrick Dr Subsurface System Improvements, Bluebonnet Rd Detention	Culvert and Subsurface System	Yes	Yes	No	Yes	75
JCK-20	Lively Bayou Detention S Choctaw Dr. to Sunnyhill Ave	Channel and Detention	Yes	No	No	Yes	50

Table A-3: Equity Scoring

Number	Short Project Description	Project Type	Historically Disadvantaged	Areas of Persistent Poverty	Opportunity Zones	Low to Moderate Income	Equity Score
CLY-41	Allegheny Ct Overland Flow Route Improvements	Subsurface System and Overflow Route	No	No	No	No	0
HED-07	Prescott Rd Detention and Channel Improvements	Channel and Detention	No	Yes	No	Yes	50
WCB-10	Thomas Rd Channel and Culvert Improvements	Clearing and Snagging	No	Yes	No	Yes	50
FMN-22	North Bayou Fountain Detention, Channel Improvements, and Pump Station	Detention and Channel	Yes	Yes	Yes	Yes	100
JCK-16	Lively Bayou north of S Flannery Rd Channel Improvements and detention	Channel and Detention	Yes	Yes	Yes	Yes	100
MOS-02	Capital Lake Pump Station Improvements	Pump Station	No	No	No	Yes	25
FMN-14	Innovation Park Dr Detention, Channel Improvements, Burbank Dr Culvert Improvement	Detention and Subsurface System	No	Yes	No	Yes	50
COL-02	Samuels Rd (Hwy 61) Culvert Improvements	Culvert	No	No	No	No	0
WCB-23	Plains Port Hudson Rd Culvert Improvements	Culvert	No	No	No	No	0
WCK-34	Ward Creek Government Street to Claycut Rd Channel Improvements	Channel	No	Yes	No	Yes	50
WCK-35	Perkins-Highland Channel and Culvert Improvements	Channel	No	No	No	No	0
FMN-18	Riverbend Detention and Channel Improvements, and Pump Station	Detention and Pump Station	Yes	Yes	Yes	Yes	100
FMN-20	LSU Golf Course Regional Detention, RR Culvert Improvements	Detention and Channel	Yes	Yes	No	Yes	75
HED-01	Glen Oaks East Subsurface System Improvements	Subsurface System, Overflow Route, and Detention	No	Yes	No	Yes	50
HED-06	Park Forest Overland Flow Route Improvements	Channel and Detention	No	No	No	Yes	25

Table A-3: Equity Scoring

Number	Short Project Description	Project Type	Historically Disadvantaged	Areas of Persistent Poverty	Opportunity Zones	Low to Moderate Income	Equity Score
CLY-07	Confederate Ave Subsurface System Improvements	Subsurface System and Overflow Route	No	No	No	No	0
FMN-10	Parkway Dr Channel Improvements and Detention, Burbank Dr Culvert Improvements	Channel and Detention	No	No	No	Yes	25
CLY-10	Westridge Drive Subsurface System Improvements	Subsurface System and Overflow Route	No	No	No	No	0
FMN-03	Fulwar Skipwith Rd near Highland Rd and Pecue Ln Culvert Improvements	Culvert and Guardrail	No	No	No	No	0
HED-05	Mammoth Ave Overland Flow Route and Subsurface System Improvements	Overflow Route	No	No	No	Yes	25
HED-21	Howell Park Detention and Channel Improvements	Channelization	No	Yes	No	Yes	50
WCK-27	Dawson Creek Kenilworth to Staring Ln Channel Improvements	Channel	Yes	Yes	No	Yes	75
FMN-12	Worthington Lake Spillway and Subsurface System Improvements	Detention and Subsurface System	No	No	No	No	0
WCB-11	Channel Improvements along Inflowing Tributaries to Lower Cypress	Channel	No	No	No	Yes	25
WCK-02	Old Ward Creek Bridge Improvements	Culvert	No	No	No	Yes	25
WCK-12	Drusilla Dr Subsurface System Improvements	Buyouts, culvert capacity	No	No	No	Yes	25
WCK-23	Government St and Cherokee St Subsurface System Improvements	Subsurface System, Overflow Route, and Detention	No	No	No	Yes	25
WCK-26	North Blvd Subsurface System Improvements	Subsurface System	No	Yes	No	Yes	50
HED-15	Airline Hwy near Prescott Rd Culvert Improvements and Detention	Detention	No	No	No	Yes	25
JCK-11	S Flannery Rd Bridge and Channel Improvements	Channelization	No	Yes	No	No	25

Table A-3: Equity Scoring

Number	Short Project Description	Project Type	Historically Disadvantaged	Areas of Persistent Poverty	Opportunity Zones	Low to Moderate Income	Equity Score
WCK-37	Ward Creek at Burden Channel Improvements and Detention	Channel	No	Yes	No	Yes	50
JCK-31	Forest Park Subsurface System Improvements	Subsurface System and Overflow Route	No	No	No	No	0
JCK-01E	Jones Creek North of Florida Blvd Channel Improvements	Detention	Yes	Yes	No	Yes	75
CLY-17	Elliot Acres Overland Flow Route Improvements	Overflow Route	No	No	No	No	0
CLY-42	Airline Hwy Channel Improvements near Claycut	Subsurface System and Overflow Route	No	No	No	No	0
JCK-01C	Cortana Regional Detention	Channel	No	Yes	No	No	25
WCK-30	Ward Creek 38th St Subsurface System Improvements	Subsurface Capacity and Overflow Route			Yes		25
WCK-31	Jefferson Hwy at I-12 Bridge Improvements	Channel	Yes	No	No	Yes	50
JCK-03	Jones Creek Florida Blvd to Goodwood Blvd Channel Improvements	Detention and Levee	No	Yes	No	Yes	50
CLY-33	Jacks Bayou Channel Improvements	Channel and Overflow Route	No	No	No	No	0
JCK-07	I-12 and S Harrells Ferry Rd Bridge Improvements	Bridge and Approach Embankment	No	No	No	Yes	25
WCK-32	Ward Creek Diversion Canal Improvements	Channel	No	Yes	No	Yes	50
WCK-20	Corporation Canal Diversion and Pump Station	Diversion, Detention, and Pump Station	No	No	No	Yes	25
WCK-13	Dawson Creek I-10 to Perkins Channel Improvements	Channel Improvements	No	No	No	Yes	25
JCK-04	Lively Bayou Old Hammond Hwy to S Flannery Rd Channel Improvements	Channel	No	No	No	Yes	25
JCK-13	Lively Bayou Diversion to Jones Creek Tributary	Buyout, Channel, Flow Diversion	No	No	No	Yes	25

Table A-3: Equity Scoring

Number	Short Project Description	Project Type	Historically Disadvantaged	Areas of Persistent Poverty	Opportunity Zones	Low to Moderate Income	Equity Score
JCK-15	Lively Bayou Diversion to Honey Cut Bayou	Diversion	No	No	No	Yes	25
JCK-05	Jones Creek Goodwood Blvd to Sherwood Forest Blvd Channel Improvements	Channel	No	No	No	Yes	25

A large red flag with the words "Baton Rouge" in white cursive script. On the left side of the flag is a blue shield featuring a white fleur-de-lis and a white castle. The flag is waving against a bright, hazy sky with a yellow vertical bar on the left edge.

*Baton
Rouge*

APPENDIX B

Grants Review

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1. Introduction

The purpose of this appendix is to provide a summary of the current grant funded projects as well as to highlight the potential for additional grant funding opportunities available to the City-Parish.

2. Current Grant Funded Projects

To date, the City-Parish has been able to capitalize on the American Rescue Plan Act (ARPA), the 2016 flood disaster allocated Hazard Mitigation Grant (HMGP) funds, and the Louisiana Watershed Initiative (LWI) grant funds.

2.1. American Rescue Plan Act of 2021

The American Rescue Plan Act of 2021, also called the COVID-19 Stimulus Package or American Rescue Plan, Pub. L. 117–2, is a US \$1.9 trillion economic stimulus bill passed by the 117th Congress of the United States. The City-Parish received a total allocation of \$165 million (distributed in two equal allotments in 2021 and 2022), of which over \$56 million was allocated to stormwater maintenance and drainage projects. This includes stormwater inlet structure and subsurface pipe cleaning, roadside ditch cave-in repairs, roadside ditch cleaning, concrete lined canal repairs, channel clearing and snagging, operations, and small drainage projects.

2.2. FEMA Flood Hazard Mitigation Program

Funds from FEMA’s Hazard Mitigation Grant Program (HMGP) is made available after a presidentially declared disaster and provides funding to state, local, tribal, and territorial governments so they can rebuild in a way that reduces, or mitigates, future disaster losses in their communities. This grant funding is more reactive rather than proactive. In response to the disastrous flooding that occurred in 2016, the City-Parish has been allocated almost \$58 million in HMGP funds across seven projects to address stormwater infrastructure improvements.

- **Port Hudson Pride Road Stream Bank Stabilization** – Port Hudson-Pride Road serves as an important corridor for the City of Zachary in northern East Baton Rouge Parish. The total cost of this project is \$3.19 million, with 75% of this funding from the FEMA Hazard Mitigation Grant Program. This funding is supplemented with East Baton Rouge’s local match of 25%, which will be paid for by the Louisiana Watershed Initiative. The Port Hudson Pride Road stream bank stabilization project will protect the area near its Comite River bridge crossing from further erosion and undercutting.
- **Hurricane Creek Slope Paving Near Plank Road** - The total cost of this project is \$1.27 million with 75% of this funding from the FEMA Hazard Mitigation Grant Program. This funding is supplemented with East Baton Rouge’s local match of 25%, which will be paid for by the Louisiana Watershed Initiative. The Hurricane Creek will mitigate the current flood risk experienced by the adjacent cemetery and nearby JH Cooney Street. The replacement of damaged concrete slabs will ensure this area remains intact and protect the Hurricane Creek stream bank from continue erosion.
- **New Bridges at Hundred Oaks & Broussard on Dawson Creek** – The total cost of this project is \$4.37 million, with 75% of this funding from the FEMA Hazard Mitigation Grant Program. This funding is supplemented with East Baton Rouge’s local match of 25%, which will be paid for by the Louisiana Watershed Initiative. The bridge replacements on Hundred Oaks Avenue and Broussard Street will protect residential areas upstream of these crossings along Dawson Creek

from damaging flood waters. The newly constructed bridges will reduce channel constrictions, reducing chances of backwater flooding occurring in areas upstream of these locations.

- **Removal of Channel Restriction in Ward Creek at Siegen Lane** – The total cost of this project is \$1.8 million, with 100% of this funding from the FEMA Hazard Mitigation Grant Program. The channel widening of Ward Creek at Siegen Lane will protect areas upstream of this crossing from damaging flood waters. The increased channel width will reduce channel constrictions, reducing chances of backwater flooding occurring in areas upstream of these locations.
- **Box Culvert Replacement on Harrelson Lateral at Old Hammond Highway** – The total cost of this project is \$1.05 million, with 75% of this funding from the FEMA Hazard Mitigation Grant Program. This funding is supplemented with East Baton Rouge’s local match of 25%, which will be paid for by the Louisiana Watershed Initiative. The enlarged box culvert on Harrelson Lateral will protect residential areas south of Old Hammond Highway from damaging flood waters.
- **Ward Creek Distributed Detention Program** – The total cost of this project is \$30.72 million, with 75% of this funding from the FEMA Hazard Mitigation Grant Program. This project consists of detention areas distributed throughout various sites in the upper areas of the Ward Creek watershed. These detention sites are green spaces that will provide extra storage for stormwater during peak runoff times and assist with flood risk reduction. A total of 200 acres will be utilized and will take approximately 3 years to complete at a cost of \$30.7 million.
- **Groom Road Surface System Improvements** – The total cost of this project is \$11.65 million, with 75% of this funding from the FEMA Hazard Grant Mitigation Program. This project is proposed to enhance pedestrian and potentially bicycle mobility for users traveling to the schools and other public facilities along the corridor. Drainage will be improved along the corridor to alleviate known occurrences of flooding in localized areas. The proposed project is expected to cost \$10.6 million.

2.3. Louisiana Watershed Initiative (LWI)

In 2018, the state launched the Louisiana Watershed Initiative, which introduced a new watershed-based approach to reducing flood risk in Louisiana. LWI is governed by the Council of Watershed Management. Congress allocated \$1.2 billion in Community Development Block Grant Mitigation (CDBG-MIT) funds to the State of Louisiana for the specific purpose of mitigation activities. The state is divided in eight provisional watershed regions to coordinate efforts among parishes and distribute project funds. East Baton Rouge Parish is in Region 7.

Fund expenditures are limited to the Most Impacted and Distressed (MID) areas associated with what has been termed the “Great Floods of 2016.” The US Department of Housing and Urban Development (HUD) identified 10 MID areas, and East Baton Rouge Parish is within one of them. At least 50% (\$601 million) of the CDBG-MIT funds will be expended in or benefit HUD-identified MIDs. The remaining 50% of CDBG-MIT funds will be expended in or benefit HUD or Louisiana-identified MIDs.



Figure 2-1: MIDs Impacted by 2016 Floods

LWI program areas under this CDBG-MIT grant include:

- State Projects and Programs (\$328 million).
- Local and Regional Watershed Projects and Programs (\$571 million)
- Watershed Monitoring, Mapping and Modeling (\$146 million)
- Watershed Policy, Planning and Local Capacity Assistance (\$24 million).

LWI grant funding opportunities for local and regional watersheds are being completed in three rounds of funding, of which the first round has already been completed. The City-Parish applied for five grants and was awarded three. An additional project was conditionally awarded pending further refinement to the application.

Awarded Projects:

- **Bayou Duplantier Floodplain Preservation** - Preserve existing floodplain in the Bayou Duplantier watershed just downstream of the LSU Lakes to preserve floodplain storage and prevent development in the future. The proposed project cost is an estimated \$8.6 million.
- **Ward Creek Floodplain Preservation** - Preserve existing floodplain in the Ward Creek watershed just upstream of BREC Airline Highway Park. The intent is to preserve floodplain storage and prevent development in the future. The proposed project cost is an estimated \$5.7 million.
- **Jones Creek Detention** – This project consists of converting a former golf course into a detention reservoir to reduce flooding along Jones Creek. The proposed project cost is an estimated \$8.3 million.

Conditionally Awarded Project:

- **Dawson Creek Detention Project** – The intent of this project is to utilize open space on the Pennington property near Perkins Rd. and Kenilworth for detention and channel improvements

upstream of the detention pond. The intent of the project is to reduce flooding along Dawson Creek. This project was conditionally approved pending some further refinement in the application to align more closely with the goals of the LWI. The proposed project cost is an estimated \$7.2 million.

3. Potential Grant Funding Opportunities

The largest sources of funding include grant programs from FEMA and the EPA. Most of these grants are targeted for flood mitigation and disaster recovery projects. There are additional grants through the IIJA/BIL that may apply to investments identified in the SMP. Eligibility and project type requirements vary between sources, but projects resulting in resilient systems that are designed with the natural environment in mind are generally eligible.

3.1. Federal and Grant Programs

Grants provide one-time funding for specific projects, and a variety of grants are available for supporting specific types of capital projects. There are several federal and state grant programs including both ongoing programs and one-time opportunities. For example, passage of the IIJA/BIL resulted in increased levels of funding for existing Federal grant programs and created new grant opportunities for infrastructure over the next five years (through 2026). IIJA/BIL will provide \$1.2 trillion in funding for transportation, water, broadband, and energy infrastructure. Among its provisions, the IIJA/BIL addresses climate change and includes strategies to reduce climate change impacts of the surface transportation system (roads and highways) and a vulnerability assessment to identify opportunities to enhance the resilience of this system while also ensuring the efficient use of federal resources.

Depending on which grant program is chosen, the City-Parish can pursue grant opportunities on its own but, in some instances, it will have to coordinate, engage, and partner with Federal, State, and local agencies (depending on the jurisdiction of the impacted asset) to access these funding opportunities. For example, stormwater projects that include improvement to transportation infrastructure may require coordination with the Louisiana Department of Transportation and Development (LADOTD). There are also funding allocations to other agencies such as the US Army Corp of Engineers (USACE) that could benefit the Parish if the funded projects achieve the goals identified in the SMP.

3.2. FEMA Grants

As described earlier, in addition to HMGP which, like ARPA, is available after a presidentially declared disaster), FEMA manages two additional funding programs that can be applied to proposed stormwater management improvements. These FEMA grants generally cover 75 percent of project costs, with some exceptions of higher federal share for economically-disadvantaged rural communities, or for severe repetitive loss, and local governments must submit applications through the state (as a sub applicant). The application period for these FEMA grants opens annually in September and include the following opportunities:

- **Building Resilient Infrastructure Communities (BRIC)** – provides funding for hazard mitigation projects. IIJA/BIL allocated over a \$1 billion to this program. The maximum award is \$50 million per applicant under the national competition.
- **Flood Mitigation Assistance (FMA) Grant**– provides funding for projects that reduce flood risks to repetitively flooded properties insured under the National Flood Insurance Program. IIJA/BIL allocated \$3.5 billion under this program. Maximum grant size varies by application type, from \$100,000 for flood hazard mitigation planning to \$30 million for community flood mitigation

projects. The City-Parish generally applies these funds to residential elevations or buyouts/relocations. For FY 2022, FEMA launched the Swift Current Initiative to provide funding in advance of the annual grant process to states affected by Hurricane Ida in 2021. FEMA allocated an estimated \$40 million to Louisiana. This grant program will prioritize assistance that benefit disadvantaged communities as defined under the Justice40 Initiative⁵, which was created to confront and address decades of underinvestment in disadvantaged communities.

Most grant programs have funding match requirements and are generally oversubscribed (i.e., there are more applications than there is available funding). The advantage of these grants is that there is no repayment requirement. Among the disadvantages, however, are the competitive nature of the grants and the need for other stable/dedicated funding to fully cover project development and capital costs (in addition to annual O&M and renewal, rehabilitation, and replacement costs) that are not covered by the grant, given that most of these awards are typically small when compared to overarching needs. For instance, for fiscal year (FY) 2020, FEMA allocated \$700 million for BRIC and FMA grant funding. In response, however, FEMA received 1,227 applications requesting an estimated \$4 billion in funding across these grant programs.

3.3. US Department of Housing and Urban Development (HUD) Grants

HUD manages the Community Development Grant (CDBG) Program, which provides funding in support of community development activities to build stronger and more resilient communities. Among the several programs under CDBG, the project eligibility for the Disaster Recovery Assistance (CDBG-DR) and the Mitigation Program (CDBG-MIT) aligns with the types of projects identified in the SMP. In Louisiana, CDBG funds are managed by the state's Office of Community Development-Local Development Assistance.

Like ARPA and HMGP, CDBG-DR funds are available after presidential declaration of a major disaster. Louisiana received \$600.1 million in CDBG-DR for flooding events that occurred in 2020. CDBG-MIT provided seed funding for the LWI program. \$1.2 billion was allocated to Louisiana, and a minimum of almost \$607 million of this allocation is required to be spent in the "most impacted and distressed" areas, which includes the City-Parish.

3.4. US Department of Agriculture (USDA) Grants

The Emergency Watershed Protection (EWP) Program provides funding for design and construction of measures to help repair damages from recent disasters. The EWP program was allocated \$300 million under IJA/BIL. The USDA's Natural Resources Conservation Service (NRCS) is funding projects in rounds, and NRCS will continue to review and fund requests as funds become available. NRCS encourages local sponsors to submit requests for funding.

3.5. US Department of Transportation (USDOT)/Federal Highway Administration (FHWA) Transportation Grants

US DOT/FHWA transportation formula and grant funds present opportunities to leverage funding sources that would otherwise not be available for stormwater projects or programs. For example,

⁵ Justice40 webpage, <https://www.whitehouse.gov/environmentaljustice/justice40/>.

communities like the City of New Orleans and Greater Memphis Metropolitan Area are using transportation and street design funding for the co-benefits of stormwater management.⁵

IIJA/BIL authorized \$319.9 billion for roads, bridges, and major transportation projects. Some of this funding is allocated to states through formula, but IIJA/BIL also include a significant increase in funding through expanded existing and new grant programs. Transportation grant programs for further consideration due to potential application of stormwater management elements include:

- Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grants – formerly known as TIGER and BUILD, RAISE grants) provide funding for transportation projects of significant local or regional impact. IIJA/BIL allocated \$7.5 billion, of which \$1.5 billion were made available for FY 2022. The first round of RAISE opened in January 2022, with applications due in April 2022. The RAISE program requires at least a 20 percent non-Federal match, and the maximum grant award is \$25 million. No single state can be awarded more than \$100 million in each round.
- National Infrastructure Project Assistance (MEGA) – this new US DOT grant program was created to support large transportation projects that would generate national or regional economic, mobility or safety benefits. Eligible highway or bridge projects must be part of the National Multimodal Freight Network, the National Highway Freight Network, or the National Highway System. The minimum project cost is \$100 million, and the maximum grant size is 60 percent of the project costs. IIJA/BIL allocated \$5 billion for this grant program, of which \$1 billion will be awarded in FY 2022.
- Promoting Resilient Operations for Transformative, Efficient and Cost-saving Transportation (PROTECT) grants – this new FHWA program includes both a formula (\$7.3 billion) and a competitive grant (\$1.4 billion) component. PROTECT grants will support planning, resilience improvements, community resilience and evacuation routes, and at-risk coastal infrastructure. Details on the grant requirements and application have not been released yet. Eligible uses may include the use of natural infrastructure or the construction or modification of storm surge, flood protection, or aquatic ecosystem restoration elements that are functionally connected to a transportation improvement.
- Bridge Grant Program - \$12.2 billion were allocated under IIJA/BIL for this new FHWA grant program for replacement, rehabilitation, preservation, or protection of bridges on the National Bridge Inventory, as well as replacement or rehabilitation of culverts to improve flood control and improve habitat connectivity for aquatic species. For large projects (\$50 million or more), the Federal share is 50 percent. For projects under \$50 million, the Federal share is 80 percent, and the minimum grant amount is \$2.5 million.
- Healthy Streets Program – this new FHWA program will provide grants for deployment of cool and porous pavements, and for expansion of tree cover. The goals of the program are to mitigate urban heat islands, improve air quality and reduce the extent of impervious surfaces, storm water runoff and flood risks and heat impacts to infrastructure and road users. The

⁵ Louisiana Watershed Initiative, Strategies for Funding Watershed Management

IIJA/BIL included a General Fund authorization of \$500 million, and it is anticipated that individual grants cannot exceed \$15 million, with a federal share of 80 percent.

3.6. State Grants

In addition to LWI, which provides CDBG-MIT funds through a grant process managed by the state, other grant opportunities for state funding for stormwater management improvements include:

- LA Department of Transportation and Development (LADOTD) Statewide Flood Control Program – provides up to 90 percent of the cost of construction for projects that reduce existing flood damages, do not encourage additional development in flood-prone areas, do not increase upstream or downstream flooding, and have a total construction cost of \$100,000 or more. Pre-applications are due on May 1st of each year, and full applications are due on October 1st.
- LA Division of Administration Local Government Assistance Program (LGAP) – this program provides funding to municipalities and parishes within the state of Louisiana that are identified by HUD as non-entitlement communities, or units of general local government that do not receive CDBG funds directly from HUD. Drainage is among the eligible activities under this grant program. Parishes can apply for up to \$100,000, although the FY 2020-2021 allocation was set at \$150,000. The application period for FY 2022 closes on June 3, 2022.

3.7. Recommendations/Next Steps

The City-Parish SMP identified projects and programmatic actions to reduce the risk of flooding throughout the Parish. The total cost of these investments is estimated at \$1.6 billion over the next 20 years. Expanded and emerging grant opportunities under IIJA/BIL will help advance some of these projects, but this will require coordination between Federal, state, and local partners to optimize the funding potential of these programs in support of the SMP. As part of the development of the SMP several HMGP and LWI grants have been approved for a total of \$100 million. It is anticipated that additional grants will be applied for every year. An additional \$60 million in projects has been applied for via various grants to date. Realistically, grant programs are highly competitive and will only support a limited portion of the CIP needs. If grants could provide 25% of the funding, the City-Parish will still need to consider additional funding alternatives to compliment grants for CIP implementation. Projects in the CIP have been matched with potential grants as shown in Table B-1. This does not guarantee grants for these projects, and some may need to be combined with other programs as indicated previously. Tables B-2 and B-3 provide further information on grant opportunities.

Table B-1: Potential Federal/State Grants by Project

Number	Short Project Description	BCR	FEMA HMGP	FEMA FMA	FEMA BRIC	HUD CDBG DR	HUD CDBG MIT (LWI)	NRCS ACEP	NRCS EWP	USDOT RAISE	USDOT/ FHWA PROTECT	USDOT Mega	USDOT Rural Surface Trans	USDOT/ FHWA BIP	OCD Local Gov Assist Prog	LADOTD Bridge Grant Program	LADOTD Statewide Flood Control Program
FMN-11	Old Hermitage Pkwy Overland Flow Route Improvements	17.77	X	X	X		X										X
HED-04	Westerly Ave Subsurface System Improvements	1.56	X	X	X		X			X	X						X
MOS-16	Rosenwald Rd Channel and Culvert Improvements	0.24					X										
WCB-07	Bentley Drive Culvert and Channel Improvements	2.26	X	X	X		X										X
MOS-07	University Place Overland Flow Route Improvements	7.61	X	X	X		X										X
MOS-19	Railroad and Scotland Ave Channel and Culvert Improvements	1.86	X	X	X		X			X	X			X			X
HED-09	Elm Dr Subsurface System Improvements	0.57					X										X
HED-14	Dickens Dr and Lanier Dr Culvert Improvements	1.64	X	X	X		X										X
FMN-31	Kathleen Dr Subsurface System Improvements	0.78	X	X	X		X										X
MOS-08	Scotland Ave and Railroad Culvert Improvements	0.54					X										X
HED-12	Plank Rd Closure Structure	2.07	X	X	X		X										X
WCB-12	Hooper Rd Culvert Improvements	0.8	X	X	X		X										X
MOS-03	Monte Sano Grade Control Structure Repair	0.01					X										
FMN-48	Patrick Dr Subsurface System Improvements, Bluebonnet Rd Detention	0.62					X										X
JCK-20	Lively Bayou Detention S Choctaw Dr. to Sunnyhill Ave	1.42	X	X	X												
CLY-41	Allegheny Ct Overland Flow Route Improvements	5.39	X	X	X												X
HED-07	Prescott Rd Detention and Channel Improvements	0.75	X	X	X												
WCB-10	Thomas Rd Channel and Culvert Improvements	2.19	X	X	X		X			X	X			X			X
FMN-22	North Bayou Fountain Detention, Channel Improvements, and Pump Station	0.81	X	X	X		X										X

Table B-1: Potential Federal/State Grants by Project

Number	Short Project Description	BCR	FEMA HMGP	FEMA FMA	FEMA BRIC	HUD CDBG DR	HUD CDBG MIT (LWI)	NRCS ACEP	NRCS EWP	USDOT RAISE	USDOT/ FHWA PROTECT	USDOT Mega	USDOT Rural Surface Trans	USDOT/ FHWA BIP	OCD Local Gov Assist Prog	LADOTD Bridge Grant Program	LADOTD Statewide Flood Control Program
JCK-16	Lively Bayou north of S Flannery Rd Channel Improvements and detention	0.93			X												
MOS-02	Capital Lake Pump Station Improvements	3.32	X	X	X		X										X
FMN-14	Innovation Park Dr Detention, Channel Improvements, Burbank Dr Culvert Improvement	0.2															
COL-02	Samuels Rd (Hwy 61) Culvert Improvements	0.37							X								
WCB-23	Plains Port Hudson Rd Culvert Improvements	1.16	X	X	X				X				X				X
WCK-34	Ward Creek Government Street to Claycut Rd Channel Improvements	0.44					X							X			
WCK-35	Perkins-Highland Channel and Culvert Improvements	0.95	X	X	X												X
FMN-18	Riverbend Detention and Channel Improvements, and Pump Station	0.25															
FMN-20	LSU Golf Course Regional Detention, RR Culvert Improvements	0.19															
HED-01	Glen Oaks East Subsurface System Improvements	1.84	X	X	X												
HED-06	Park Forest Overland Flow Route Improvements	0.48					X										
CLY-07	Confederate Ave Subsurface System Improvements	2.12	X	X	X												X
FMN-10	Parkway Dr Channel Improvements and Detention, Burbank Dr Culvert Improvements	0.19															
CLY-10	Westridge Drive Subsurface System Improvements	1.68	X	X	X												X
FMN-03	Fulwar Skipwith Rd near Highland Rd and Pecue Ln Culvert Improvements	0															
HED-05	Mammoth Ave Overland Flow Route and Subsurface System Improvements	0.5					X										X
HED-21	Howell Park Detention and Channel Improvements	0.12															

Table B-1: Potential Federal/State Grants by Project

Number	Short Project Description	BCR	FEMA HMGP	FEMA FMA	FEMA BRIC	HUD CDBG DR	HUD CDBG MIT (LWI)	NRCS ACEP	NRCS EWP	USDOT RAISE	USDOT/ FHWA PROTECT	USDOT Mega	USDOT Rural Surface Trans	USDOT/ FHWA BIP	OCD Local Gov Assist Prog	LADOTD Bridge Grant Program	LADOTD Statewide Flood Control Program
WCK-27	Dawson Creek Kenilworth to Staring Ln Channel Improvements	0.21															
FMN-12	Worthington Lake Spillway and Subsurface System Improvements	0.75	X	X	X												X
WCB-11	Channel Improvements along Inflowing Tributaries to Lower Cypress	0.67					X										X
WCK-02	Old Ward Creek Bridge Improvements	0.46															
WCK-12	Drusilla Dr Subsurface System Improvements	0.15					X										
WCK-23	Government St and Cherokee St Subsurface System Improvements	0.89			X												
WCK-26	North Blvd Subsurface System Improvements	0.98	X	X	X												
HED-15	Airline Hwy near Prescott Rd Culvert Improvements and Detention	0.98	X	X	X		X										X
JCK-11	S Flannery Rd Bridge and Channel Improvements	1.83	X	X	X												X
WCK-37	Ward Creek at Burden Channel Improvements and Detention	0.73															
JCK-31	Forest Park Subsurface System Improvements	0.26															
JCK-01E	Jones Creek North of Florida Blvd Channel Improvements	1.22	X	X	X												
CLY-17	Elliot Acres Overland Flow Route Improvements	0.99		X	X												X
CLY-42	Airline Hwy Channel Improvements near Claycut	0.22															
JCK-01C	Cortana Regional Detention	1															
WCK-30	Ward Creek 38th St Subsurface System Improvements	0.4															
WCK-31	Jefferson Hwy at I-12 Bridge Improvements	0.4												X			
JCK-03	Jones Creek Florida Blvd to Goodwood Blvd Channel Improvements	0.39															
CLY-33	Jacks Bayou Channel Improvements	0.16															
JCK-07	I-12 and S Harrells Ferry Rd Bridge Improvements	0.4								X							

Table B-1: Potential Federal/State Grants by Project

Number	Short Project Description	BCR	FEMA HMGP	FEMA FMA	FEMA BRIC	HUD CDBG DR	HUD CDBG MIT (LWI)	NRCS ACEP	NRCS EWP	USDOT RAISE	USDOT/ FHWA PROTECT	USDOT Mega	USDOT Rural Surface Trans	USDOT/ FHWA BIP	OCD Local Gov Assist Prog	LADOTD Bridge Grant Program	LADOTD Statewide Flood Control Program
WCK-32	Ward Creek Diversion Canal Improvements	0.7												X			
WCK-20	Corporation Canal Diversion and Pump Station	0.69															
WCK-13	Dawson Creek I-10 to Perkins Channel Improvements	0.66															
JCK-04	Lively Bayou Old Hammond Hwy to S Flannery Rd Channel Improvements	1.1	X	X	X		X										X
JCK-13	Lively Bayou Diversion to Jones Creek Tributary	0.39															
JCK-15	Lively Bayou Diversion to Honey Cut Bayou	0.6												X			
JCK-05	Jones Creek Goodwood Blvd to Sherwood Forest Blvd Channel Improvements	0.2					X										

Table B-2 Grants Criteria

Grant	Administering Agency	Match Requirements	Project Size Requirements	Max Grant Amount	Application Period	Criteria for Evaluation
Hazard Mitigation Grant Program (HMGP)	FEMA	75% Federal (Management costs are covered at 100%)	N/A	Up to 15% of the first \$2 billion	The applicant must submit all sub-applications to FEMA within 12 months of the date of the presidential major disaster declaration.	NOTE: funds only available after presidential major disaster declaration; not a recurring grant program. 44 CFR Chapter I Subchapter D Part 206 Subpart N (206.430 – 206.440) 1. Consistency with FEMA-approved State Mitigation Plan 2. Cost-effectiveness and substantially reduce the risk of future damage, hardship, loss, or suffering resulting from a major disaster. 3. Have a beneficial impact upon the designated disaster area, whether or not located in the designated area 4. Be in conformance with 44 CFR part 9, Floodplain Management and Protection of Wetlands, and other applicable environmental and historic preservation laws, regulations, Executive Orders, and agency policy 5. Solve a problem independently or constitute a functional portion of a solution where there is assurance that the project as a whole will be completed Local governments to coordinate with State Hazard Mitigation Officer (Governor’s Office of Homeland Security and Emergency Preparedness) FEMA hazard mitigation assistance grants website: https://www.fema.gov/grants/mitigation
Flood Mitigation Assistance (FMA) Grant	FEMA	75% Federal 90% Federal for repetitive loss property as defined under the National Flood Insurance Program 100% Federal for severe repetitive loss	N/A	Varies by application type, between \$100K for flood hazard mitigation planning to \$30M for community flood mitigation project.	Opens end of September / early October and closes end of January	1. NFIP Insured Multiple Loss Communities 2. NFIP Policy Holder 3. Severe Repetitive Loss (SRL) and Repetitive Loss (RL) Properties 4. Community Rating System (CRS) Participation 5. Advance Assistance Generated Project (Projects Only) 6. Cooperating Technical Partners (CTP) Participation 7. CDC Social Vulnerability Index 8. Consideration of climate change and other future conditions or Incorporation of Nature-based solutions 9. Cost-effectiveness (BCA) 10. Meet all environmental and historic preservation (EHP) requirements FEMA hazard mitigation assistance grants website: https://www.fema.gov/grants/mitigation

Table B-2 Grants Criteria

Grant	Administering Agency	Match Requirements	Project Size Requirements	Max Grant Amount	Application Period	Criteria for Evaluation
Building Resilient Infrastructure and Communities (BRIC)	FEMA	75% Federal Non-Federal cost share reduced to 10 percent for Economically Disadvantaged Rural Communities (EDRC)/small, impoverished communities ⁶	N/A	Up to \$1M per Applicant for State/Territory \$50M per applicant for national competition	Opens end of September / early October and closes end of January	1. Risk Reduction/Resiliency Effectiveness 2. Climate Change and Other Future Conditions 3. Implementation Measures 4. Population Impacted 5. Outreach Activities 6. Leveraging Partners 7. Cost-effectiveness (BCA) 8. Meet either of the two latest published editions of relevant consensus-based codes, specifications, and standards 9. Align with the applicable hazard mitigation plan 10. Meet all environmental and historic preservation (EHP) requirements FEMA hazard mitigation assistance grants website: https://www.fema.gov/grants/mitigation
Community Development Block Grants (Disaster Recovery Assistance)	U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT		N/A	N/A	N/A	NOTE: funds only available after presidential major disaster declaration; not a recurring program. HUD CDBG-DR website: https://www.hud.gov/program_offices/comm_planning/cdbg-dr
Community Development Block Grants (Mitigation Program)	U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT				N/A	Seed money for LWI program. Grantees must submit a CDBG-MIT Action Plan. HUD CDBG-MIT website: https://www.hud.gov/program_offices/comm_planning/cdbg-dr/cdbg-mit
Agricultural Conservation Easement Program (Wetland Reserve Easement)	USDA	50-100% Federal depending on term of easement and activity	N/A	N/A	Varies by state (due September for WRE in Louisiana)	Land eligible for wetland reserve easements includes privately held farmed or converted wetland that can be successfully and cost-effectively restored. NRCS will prioritize applications based the easement’s potential for protecting and enhancing habitat for migratory birds and other wildlife. USDA Agricultural Conservation Easement Program website: https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/easements/acep/

⁶ Economically-disadvantaged rural communities are communities of 3,000 or fewer individuals identified by the applicant, with residents having an average per capita annual income not exceeding 80% of the national per capita income.

Table B-2 Grants Criteria

Grant	Administering Agency	Match Requirements	Project Size Requirements	Max Grant Amount	Application Period	Criteria for Evaluation
Emergency Watershed Protection Program	USDA	75% Federal For communities designated as limited resource areas, 90% Federal.			N/A	Projects must be able to demonstrate the following: 1. Reduce threats to life and property 2. Be economically, environmentally, and socially sound 3. Designed to acceptable engineering standards 4. Provide protection from flooding or soil erosion 5. Restore the hydraulic capacity to the natural environment to the maximum extent practical USDA Emergency Watershed Protection Program website: https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/ewpp/
Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grants	U.S. DOT	80% Federal The Secretary may increase Federal share above 80% for projects located in Areas of Persistent Poverty and Historically Disadvantaged Communities	\$1M minimum award for rural areas \$5M minimum award for urban areas	\$25M	Application period opens end of January; due date April ^a	Evaluation Criteria 1. Safety 2. Environmental Sustainability 3. Quality of Life 4. Economic competitiveness and opportunity 5. Mobility and community connectivity 6. State of good repair 7. Innovation (technology/project delivery/financing) 8. Partnership 9. Benefit Cost Analysis (BCA) 10. USDOT will prioritize projects that can demonstrate improvements to racial equity, reduce impacts of climate change and create good-paying jobs 11. Project-readiness US DOT RAISE grants website: https://www.transportation.gov/RAISEgrants
Promoting Resilient Operations for Transformative, Efficient and Cost-saving Transportation (PROTECT) Grant Program	FHWA	80% Federal			TBD ^b	No info available on evaluating criteria yet (new grant program)

Table B-2 Grants Criteria

Grant	Administering Agency	Match Requirements	Project Size Requirements	Max Grant Amount	Application Period	Criteria for Evaluation
National Infrastructure Project Assistance (MEGA)	U.S. DOT	60% grant (other federal funding sources can be used to max out the federal share to 80%)	Minimum of \$100M	N/A	Application period opens end of March; due in May ^a	<p>Project is part of National Highway System (NHS), National Multimodal Freight Network, or National Highway Freight Network</p> <p>Project Requirements:</p> <ol style="list-style-type: none">1. The project is likely to generate national or regional economic, mobility, or safety benefits.2. The project is in significant need of Federal funding3. The project will be cost-effective.4. Non-Federal share financial commitments5. The applicant has, or will have, sufficient legal, financial, and technical capacity to carry out the project (readiness). <p>Selection Criteria:</p> <ol style="list-style-type: none">1. Safety2. State of Good Repair3. Economic Impacts, Freight Movement, and Job Creation4. Climate Change, Resiliency, and the Environment5. Equity, Multimodal Options, and Quality of Life6. Innovation Areas: Technology, Project Delivery, and Financing7. Benefit Cost Analysis (BCA) <p>Geographic diversity: whether project is located in a qualified opportunity zone, Empowerment Zone, Promise Zone or Choice Neighborhood (as defined by HUD)</p> <p>US DOT MEGA grants website: https://www.transportation.gov/grants/mega-grant-program</p>

Table B-2 Grants Criteria

Grant	Administering Agency	Match Requirements	Project Size Requirements	Max Grant Amount	Application Period	Criteria for Evaluation
Rural Surface Transportation Grants	U.S. DOT	80% Federal with some exceptions. Other Federal assistance may satisfy the non-Rural share requirement up to 100% of project costs.	At least 90 percent of Rural grant amounts must be at least \$25 million, and up to 10 percent of Rural grants may be for grant amounts of less than \$25 million.	N/A	Application period opens end of March; due in May ^a	<p>Project Requirements:</p> <ol style="list-style-type: none">1. The project will generate regional economic, mobility, or safety benefits.2. The project will be cost-effective.3. The project will contribute to the accomplishment of 1 or more of the national goals under 23 U.S.C. § 150.4. The project is based on the results of preliminary engineering.5. The project is reasonably expected to begin construction not later than 18 months after the date of obligation of funds for the project. <p>Selection Criteria:</p> <ol style="list-style-type: none">1. Safety2. State of Good Repair3. Economic Impacts, Freight Movement, and Job Creation4. Climate Change, Resiliency, and the Environment5. Equity, Multimodal Options, and Quality of Life6. Innovation Areas: Technology, Project Delivery, and Financing7. Benefit Cost Analysis (BCA) <p>Geographic diversity: whether project is located in a qualified opportunity zone, Empowerment Zone, Promise Zone or Choice Neighborhood (as defined by HUD)</p> <p>US DOT Rural surface transportation grants website: https://www.transportation.gov/grants/rural-surface-transportation-grant</p>

Table B-2 Grants Criteria

Grant	Administering Agency	Match Requirements	Project Size Requirements	Max Grant Amount	Application Period	Criteria for Evaluation
Bridge Grant Program	FHWA	<p>Large project is not less than \$100,000,000 (Federal share is 50% and non-federal share is 50%)</p> <p>All other projects, grant is not less than \$2,500,000 (Federal Share is 80% and non-federal share is 20%)</p> <p>90% Federal for Off-system</p>	<p>Large project is not less than \$100,000,000</p> <p>All other projects not less than \$2,500,000</p> <p>CULVERT LIMITATION —Not more than 5 percent of the amounts made available for each fiscal year for grants under the program may be used for eligible projects that consist solely of culvert replacement or rehabilitation.</p>	50% of project costs for projects over \$100M	Application period opens in June; due in August (large bridges) and September (other bridges) ^a	<p>Bridges that are part of the National Bridge Inventory, or culvert projects that improve flood control and improve habitat connectivity for aquatic species.</p> <p>Evaluation Requirements:</p> <ol style="list-style-type: none">1. Cost avoided by prevention of the closure or reduced use of the bridge2. Benefit from protection as described in 23 U.S.C. §133(b)(10), including improving seismic and scour protection (23 U.S.C. §124(f)(3)(B)(i)(VII))3. Reduction in maintenance cost, and savings to the Federal budget (if Federally owned bridge)4. For large projects, consistent with applicable asset management plan for project sponsor.5. Safety benefits6. Person and freight mobility benefits, including congestion reduction and reliability improvements7. National or regional economic benefits8. Benefits from long-term resiliency to extreme weather events, flooding, or other natural disasters9. Environmental benefits, including wildlife connectivity10. Benefits to nonvehicular and public transportation users11. For bundled projects, benefit for executing as a bundle compared to as individual project12. Benefits of innovative design/construction techniques/technologies13. For large projects, identify funding sources for ongoing maintenance and preservation after project completion14. The project is reasonably expected to begin construction not later than 18 months after the date of obligation of funds for the project and preliminary engineering is complete for the project. <p>Selection Criteria:</p> <ol style="list-style-type: none">1. Benefit Cost Analysis (BCA) – high rating for BCA > 1.52. State of Good Repair3. Safety4. Mobility and economic competitiveness5. Climate change, resiliency, and the environment6. Quality of life7. Innovation8. Project readiness: technical assessment; financial completeness; environmental review and permitting risk <p>FHWA Bridge Investment Program website: https://www.fhwa.dot.gov/bridge/bip/</p>

Table B-2 Grants Criteria

Grant	Administering Agency	Match Requirements	Project Size Requirements	Max Grant Amount	Application Period	Criteria for Evaluation
Local Government Assistance Program (LGAP)	Louisiana Division of Administration	100% Federal Share (Local matches seem to not be required but preferred. A match amount is not specified.)		\$100,000 (Per parish allocation for FY21-22 is \$150K)	For most recent round, due date is 6/3/2022 Funded annually	<p>Describe how proposed project will improve:</p> <ol style="list-style-type: none">1. Health2. Safety3. Living Conditions4. Quality of Life <p>Application Required Documentation</p> <p>Population of jurisdiction</p> <ol style="list-style-type: none">1. House and Senate District Number2. Estimated number of citizens that will benefit from proposed project3. Budget of proposed project including funding sources4. Project description5. Resolution of support from local governing body6. Signed Local Government Assurances7. Support letter from House and Senate member <p>Louisiana Division of Administration LGAP website: https://www.doa.la.gov/doa/ocd-lga/lgap-and-cwef-programs/local-government-assistance-program/</p>
Louisiana Watershed Initiatives (LWI)	Council of Watershed Management				Round 2 is expected to launch in Winter 2023. Round 3 – TBD	<p>Note: funded with CBGP-MIT funds</p> <p>Project Evaluation Criteria for Post Application:</p> <ol style="list-style-type: none">1. Effectiveness in Minimizing Risk2. Project Costs & Project Implementation3. Social Benefits4. Enhancement of Natural Functions5. Benefit to Most Impacted and Distressed Parishes <p>Pending release of requirement for Rounds 2 and 3 applications.</p> <p>Goals of Round 2:</p> <ol style="list-style-type: none">1. Build project development capacity statewide2. Prioritize HUD most impacted and distressed parishes3. Prioritize low- to moderate-income areas4. Encourage nature-based solutions, where feasible, in project design5. Prioritize small towns and parishes6. Enhance statewide dispersion of project funds <p>LWI website: https://watershed.la.gov/</p>

Table B-2 Grants Criteria

Grant	Administering Agency	Match Requirements	Project Size Requirements	Max Grant Amount	Application Period	Criteria for Evaluation
Statewide Flood Control Program	LADOTD	The program provides up to 90% of the construction cost for non-federal projects and up to 70% of non-federal participants’ share of federal projects. Does not cover any E&D costs	Must have a construction cost of \$100,000 or more		Pre-application due May 1st of each year; Full applications due October 1 st	<p>Pre-application evaluation criteria:</p> <ol style="list-style-type: none">1. Time elapsed since initial request2. Local support3. Existing Surveying and Engineering information4. Severity of flooding problem <p>Application evaluation criteria (due four years after submittal of pre-application):</p> <p>PART A</p> <ol style="list-style-type: none">1. Documentation of Flood Problem2. Local Support3. Technical feasibility4. Prevention of Loss of Life5. Environmental Effects and Impact on Development6. Projects Recommended but not funded <p>PART B – potential damage reductions</p> <p>LADOTD Statewide Flood Control Program website: http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Public_Works/Flood_Control/Pages/default.aspx</p>

^a Based on FY 2022 NOFO release

^b Future funding opportunities for USDOT programs can be tracked at <https://www.transportation.gov/bipartisan-infrastructure-law/upcoming-notice-funding-opportunity-announcements-2022>, last accessed on August 24, 2022.

Table B-3: Funding Sources - Grants

Funding Program	Agency	Qualifiers (What)	Eligibility (who)	Funding Information	Grant Size	Max Grant Amount	Funding Cycle	Application Period/Due Date
Hazard Mitigation Grant Program (HMGP)	FEMA	<ul style="list-style-type: none">• Retrofitting existing buildings to make them less susceptible to damage from a variety of natural hazards.• Purchasing hazard prone property to remove people and structures from harm’s way.• Utility and infrastructure retrofits to reduce risk of failure caused by natural hazards.• Drainage improvement projects to reduce potential for flood damage.• Slope stabilization projects to reduce risk to people and structures• Developing and adopting hazard mitigation plans, which are required for state, local, tribal and territorial governments to receive funding for their hazard mitigation projects.• Using aquifer storage and recovery, floodplain and stream restoration, flood diversion and storage, or green infrastructure methods to reduce the impacts of flood and drought.	States, territories, and tribal governments. "Local governments, including cities, townships, counties, special district governments, state agencies, and tribal governments (including federally recognized tribes who choose to apply as sub-applicants) are considered sub-applicants and must submit sub-applications to their state/territory/tribal applicant agency."	"Funding is based on the estimated total or aggregate cost of disaster assistance: Up to 15% of the first \$2 billion Up to 10% for amounts between \$2 billion and \$10 billion Up to 7.5% for amounts between \$10 billion and \$35.333 billion States with enhanced mitigation plans: Up to 20%, not to exceed \$35.333 billion." "Generally, the cost share is 75% federal/25% non-federal. The 25% can come from the state or local government, an individual, construction labor, Increased Cost of Compliance (ICC) funds from a flood insurance policy, or Small Business Administration loans. Check with your respective community, state, or tribe to determine your specific cost-share requirements."	Up to 15% of the first \$2 billion Up to 10% for amounts between \$2 billion and \$10 billion Up to 7.5% for amounts between \$10 billion and \$35.333 billion	Up to 15% of the first \$2 billion	Round Application	The applicant must submit all sub-applications to FEMA within 12 months of the date of the presidential major disaster declaration.
Flood Mitigation Assistance (FMA) Grant	FEMA	<ul style="list-style-type: none">• Flood control• Elevation• Acquisition• Management costs• Stabilization and restoration• Relocation• Mitigation Reconstruction• Feasibility, engineering, BCA, and design studies• Floodproofing• Elevate facilities to identify mitigation actions	States: local governments are sub-applicants	\$3.5B under IIJA/BIL (\$160M available for FY 2021) "Cost share is required for all sub-applications funded by the Flood Mitigation Assistance program. Generally, the cost share for this program is 75% federal / 25% non-federal. Contributions of cash, third-party in-kind services, materials, or any combination thereof, may be accepted as part of the non-federal cost share."	▪ \$300,000 for Project Scoping sub applications for individual flood mitigation project ▪ \$900,000 for Project Scoping sub applications for community flood mitigation projects ▪ \$30,000,000 cap per community flood mitigation project ▪ \$50,000 per Applicant for all Technical Assistance sub applications, ▪ \$100,000 per Applicant	Varies by application type, between \$100K for flood hazard mitigation planning to \$30M for community flood mitigation project.	Annual Application	Opens end of September/early October and closes end of January Applications for Fiscal Year 2022 are expected to open no later than September 30th, 2022

Table B-3: Funding Sources - Grants

Funding Program	Agency	Qualifiers (What)	Eligibility (who)	Funding Information	Grant Size	Max Grant Amount	Funding Cycle	Application Period/Due Date
					for flood hazard mitigation planning			
Building Resilient Infrastructure and Communities (BRIC)	FEMA	<ul style="list-style-type: none"> • Flood control • Utility and infrastructure protection • Retrofit • Management costs • Relocation • Saferoom/shelter • Mitigation reconstruction • Stabilization and restoration • Acquisition 	States submit applications; local governments are sub-applicants (and submit to state)	<p>\$1B under IIJA/BIL for FY 2021</p> <p>75% federal / 25% non-federal</p>	<p>Up to \$1M per Applicant for State/Territory (of \$56M allocation)</p> <p>\$25M allocation for Tribal set-aside</p> <p>\$50M per applicant for national competition (of \$919M allocation)</p>	<p>\$1M per State</p> <p>\$50 million per applicant for national competition</p>	<p>Annual Application</p>	<p>Opens end of September/early October and closes end of January</p> <p>Applications for Fiscal Year 2022 are expected to open no later than September 30th, 2022.</p>
Community Development Block Grants (Disaster Recovery Assistance)	U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT	<ul style="list-style-type: none"> • Disaster Relief. • Long Term-Recovery. • Restoration of Infrastructure. • Housing. • Economic Revitalization. 	<p>"CDBG funds can be used to create viable communities and are awarded annually to eligible state and local governments."</p> <p>"Those who receive grant money include state agencies, non-profit organizations, economic development agencies, citizens and businesses."</p>	<p>1992-2021 Allocation: \$83.9 Billion</p> <p>1992-2021 Active Grant Funds: \$67 billion</p> <p>\$600.1 million in FY 2020/21 allocations. Managed by the LA Office of Community Development.</p>	Varies based on need. Louisiana received \$600.1 million as part of federal funding allocation through CDBG-DR for Hurricanes Laura, Delta, Zeta and other 2020 event.	N/A	Round Application	N/A
Community Development Block Grants (Mitigation Program - MIT)	U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT	For the purposes of this funding, mitigation activities are defined as activities that increase resilience to disasters and reduce or eliminate the long-term risk of loss of life, injury, damage to and loss of property, and suffering and hardship by lessening the impact of future disasters.	HUD allocates funds; grantees must submit an action plan for use of funds. CDBG-MIT funds are managed by the LA Office of Community Development.	Seed funding for LWI program provided through CDBG Mitigation funds (CDBG-MIT).	Congress allocated close to \$16 billion for CDBG-MIT, of which almost \$6.9 billion were allocated in 2019 to eligible State, cities and counties impacted by disasters (remaining funds to be allocated later - TBD). The allocation for Louisiana was \$1.2 billion, of which a minimum of almost \$607 million had to be spent in "most impacted and distressed" areas, including EBR Parish.	N/A	Round Application	N/A

Table B-3: Funding Sources - Grants

Funding Program	Agency	Qualifiers (What)	Eligibility (who)	Funding Information	Grant Size	Max Grant Amount	Funding Cycle	Application Period/Due Date
Agricultural Conservation Easement Program	USDA	"Land eligible for wetland reserve easements includes farmed or converted wetland that can be successfully and cost-effectively restored. NRCS will prioritize applications based the easement’s potential for protecting and enhancing habitat for migratory birds and other wildlife."	"Land eligible for agricultural easements includes cropland, rangeland, grassland, pastureland and nonindustrial private forest land.	"Permanent Easements are conservation easements in perpetuity. NRCS pays 100 percent of the easement value for the purchase of the easement, and 75 to 100 percent of the restoration costs. <ul style="list-style-type: none">• 30-Year Easements expire after 30 years. Under 30-year easements, NRCS pays 50 to 75 percent of the easement value for the purchase of the easement, and 50 to 75 percent of the restoration costs.• Term Easements are easements that are for the maximum duration allowed under applicable state laws. NRCS pays 50 to 75 percent of the easement value for the purchase of the term easement and between 50 to 75 percent of the restoration costs.• 30-Year Contracts are only available to enroll acreage owned by Indian tribes. Program payment rates are commensurate with 30-year easements."	In FY 2022, there were \$17M available under the Wetland Reserve Easement (WRE) program for partner agreements; proposals maximum request was capped at \$5M.	N/A	Round Application	Application dates listed and updated on the following website. Vary by State. https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/programs/financial/?cid=NRCSEPRD1837661
Emergency Watershed Protection Program	USDA	Reduce threats to life or property by repairing severe soil erosion and impairments or restoring the hydraulic capacity to the natural environment in an economically/environmentally defensible & technically sound manner. Offers financial and technical assistance for various activities under EWP Program, including: Remove debris from stream channels, road culverts and bridges; reshape and protect eroded streambanks; correct damaged or destroyed drainage facilities;	Local sponsor representing owners, managers, and users of public, private, or Tribal lands are eligible for Emergency Watershed Protection Assistance if their watershed area has been damaged by a natural disaster. Recovery projects begin with a local sponsor or legal subdivision of state or tribal government. Eligible sponsors include cities, counties, towns, conservation districts,	\$300 million available for EWP under IJJA/BIL. USDA’s Natural Resources Conservation Service is funding projects in rounds, and NRCS will continue to review and fund requests as funds are available. NRCS encourages local sponsors to submit requests for funding.	75% of project costs			

Table B-3: Funding Sources - Grants

Funding Program	Agency	Qualifiers (What)	Eligibility (who)	Funding Information	Grant Size	Max Grant Amount	Funding Cycle	Application Period/Due Date
		establish vegetative cover on critically eroding lands; repair levees and structures; repair certain conservation practices, and purchase floodplain easements	or any federally recognized Native American tribe or tribal organization. Interested public and private landowners must work through a sponsor.					
Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grants	U.S. DOT	Projects for RAISE funding will be evaluated based on merit criteria that include safety, environmental sustainability, quality of life, economic competitiveness, state of good repair, innovation, and partnership. Within these criteria, the Department will prioritize projects that can demonstrate improvements to racial equity, reduce impacts of climate change and create good-paying jobs.	<ul style="list-style-type: none">• States and Local governments are eligible.• Traditionally focused to transportation projects but co-benefits with storm water management projects	\$1.5 billion in Fiscal Year (FY) 2022 discretionary grant funding. IIJA/BIL will provide \$7.5 B through 2026.	The maximum grant award is \$25 million, and no more than \$100 million can be awarded to a single State 20% non-federal match required	\$25 million	Recurrent Annual Basis	NOFO released in January; estimated due date April
Promoting Resilient Operations for Transformative, Efficient and Cost-saving Transportation (PROTECT) Grant Program	FHWA	A project carried out by a State with funds apportioned to the State under Section 104(b)(8) may include the use of natural infrastructure or the construction or modification of storm surge, flood protection, or aquatic ecosystem restoration elements that are functionally connected to a transportation improvement, such as— (i) increasing marsh health and total area adjacent to a highway right-of-way to promote additional flood storage; (ii) upgrades to and installation of culverts designed to withstand 100-year flood events; (iii) upgrades to and installation of tide gates to protect highways; (iv) upgrades to and installation of flood gates to protect tunnel entrances; and (v) improving functionality and resiliency of stormwater controls, including inventory inspections, upgrades to, and preservation of best management practices to	State or political subdivision of a state; metropolitan planning organization; unit of local government; special purpose district or public authority with a transportation function, including a port authority; Indian tribe; federal land management agency that applies jointly with a state or group of states; multi-state or multijurisdictional group of public entities. In order to receive an “At-risk Coastal Infrastructure Grant” within the PROTECT program, the applicant must also border the Atlantic, Pacific, or Arctic Ocean, the Gulf of Mexico, Long Island Sound, or one or more of the Great Lakes.	\$7.3 billion in formula and \$1.4 billion in competitive grants over five years Federal Share is 80% and non-federal share is 20% A project may include the use of natural infrastructure or the construction or modification of storm surge, flood protection, or aquatic ecosystem restoration elements that the Secretary determines are functionally connected to a transportation improvement, such as: (i) increasing marsh health and total area adjacent to a highway right-of-way to promote additional flood storage; (ii) upgrades to and installing of culverts designed to withstand 100-year flood events; (iii) upgrades to and installation of tide gates to protect highways; and (iv) upgrades to and installation of	No details available on grant program yet.		Annual Application	TBD

Table B-3: Funding Sources - Grants

Funding Program	Agency	Qualifiers (What)	Eligibility (who)	Funding Information	Grant Size	Max Grant Amount	Funding Cycle	Application Period/Due Date
		protect surface transportation infrastructure		flood gates to protect tunnel entrances.				
National Infrastructure Project Assistance (MEGA)	USDOT	Projects eligible under the Megaprojects program include—a highway or bridge project carried out on—the National Multimodal Freight Network of title 49, United States Code; the National Highway Freight Network, United States Code; or the National Highway System, United States Code; a freight intermodal (including public ports) or freight rail project that provides a public benefit; a railway-highway grade separation or elimination project; an intercity passenger rail project; and certain public transportation projects that are eligible for Federal Transit Administration funding of Title 49, United States Code	(A) A State or a group of States; (B) a metropolitan planning organization; (C) a unit of local government; (D) a political subdivision of a State; (E) a special purpose district or public authority with a transportation function, including a port authority;(F) a Tribal government or a consortium of Tribal governments;(G) a partnership between Amtrak and 1 or more entities described in subparagraphs (A) through (F); and (H) a group of entities described in any of subparagraphs (A) through (G).	Federal share is 60% from grant and non-federal share is 40% (However, other federal funding sources can be used to max out the federal share to 80%). Projects must generate clear, direct, and significant and well-supported benefits in at least three areas while avoiding negative impacts in any one area: (1) safety; (2) state of good repair; (3) economic impacts, freight movement, and job creation; (4) climate change, resiliency, and the environment; (5) equity, multimodal options, and quality of life; and (6) innovation. \$1 billion available for FY 2022; \$5 billion total funding available through FY 2026 under IIJA/BIL	NOFO was released on 3/23/2022	60% of project costs for projects over \$100M	Annual Application	End of March; applications due in May
Rural Surface Transportation Grants	USDOT	Highway, bridge, or tunnel projects eligible under the National Highway Performance Program, Surface Transportation Block Grant Program, or the Tribal Transportation Program; highway freight project eligible under the National Highway Performance Program; highway safety improvement project; project on a publicly-owned highway or bridge improving access to certain facilities that support the economy of a rural area; integrated mobility management system, transportation demand management system, or on-demand mobility services.	State, Regional transportation planning organizations, Local governments, Tribal governments	Up to \$1 billion authorized under IIJA/BIL; \$300 million available for FY 2022. Up to 80% of project costs, with some exceptions. Other Federal assistance may satisfy the non-Rural share requirement up to 100% of project costs.	NOFO was released on 3/23/2022	\$25M	Annual Application	End of March; applications due in May
Bridge Grant Program	FHWA	Projects to replace, rehabilitate, preserve, or protect one or more bridges on the National Bridge Inventory.	State, metropolitan planning organization (representing an area with a population of	Large project is not less than \$50,000,000 (Federal share is 50% and non-federal share is 50%)	Minimum of \$50M for large projects (at 50/50 match)	50% of project costs for	Annual Application	TBD

Table B-3: Funding Sources - Grants

Funding Program	Agency	Qualifiers (What)	Eligibility (who)	Funding Information	Grant Size	Max Grant Amount	Funding Cycle	Application Period/Due Date
		Projects to replace or rehabilitate culverts to improve flood control and improve habitat connectivity for aquatic species.	more than 200,000), local government, special purpose district or public	All other projects not less than \$2,500,000 (Federal Share is 80% and non-federal share is 20%) CULVERT LIMITATION —Not more than 5 percent of the amounts made available for each fiscal year for grants under the program may be used for eligible projects that consist solely of culvert replacement or rehabilitation. \$12.2 B total funding available under IJJA/BIL.		projects over \$50M		
Local Government Assistance Program (LGAP)	Louisiana Division of Administration	<ul style="list-style-type: none">• Fire protection• Sewer• Water• Renovations to essential governmental buildings• Police protection• Land acquisition• Demolition• Equipment• Roads• Drainage• Reasonable engineering costs	"All municipalities and parishes within the state of Louisiana that are identified by the U.S. Department of Housing and Urban Development as non-entitlement communities are eligible to apply for assistance."	\$4 million has been made available for continuation of the Local Government Assistance Program for fiscal year 2020-2021. Local matches seem to not be required but preferred. A match amount is not specified.	Maximum grant ceiling amounts are based on the following population ranges: Villages (1-999) up to \$25,000. Towns (1,000-4,999) up to \$35,000. Cities (5,000-35,000) up to \$50,000. Parishes up to \$100,000. Allocation per Parish for FY2021-22 was \$150,000	Parishes up to \$100,000.	Recurrent Annual Basis	For most recent round, due date is 6/3/2022 Funded annually

Table B-3: Funding Sources - Grants

Funding Program	Agency	Qualifiers (What)	Eligibility (who)	Funding Information	Grant Size	Max Grant Amount	Funding Cycle	Application Period/Due Date
Louisiana Watershed Initiatives	Council of Watershed Management	These projects and programs may include, but are not limited to, direct physical improvements to the watershed, ecological and waterway restoration projects, code enforcement activities, floodplain/floodway easements, and strategic land acquisitions and other projects that demonstrably enhance the storage and ecosystem capacity of the land and water systems within the state’s respective watersheds.	<ul style="list-style-type: none">• State of Louisiana government agencies;• Units of local or regional government;• Institutions of higher education;• Private non-profit organizations;• Private landowners (for buyout and/or nonstructural mitigation activities); and/or• Other entities serving as subrecipients to the state.	<p>The LWI program areas under this CDBG-MIT grant include:</p> <ol style="list-style-type: none">1. Local and Regional Watershed Projects and Programs (\$571 million)2. State Projects and Programs (\$328 million)3. Watershed Monitoring, Mapping and Modeling (\$146 million)4. Watershed Policy, Planning and Local Capacity Assistance (\$24 million) <p>Funds are mainly distributed on a competitive basis.</p>	<p>1. Local and Regional Watershed Projects and Programs: Round 1 of this program has a maximum award amount of \$10 million per project. Maximum award for rounds 2 and 3 not yet defined.</p> <p>2. State Projects and Programs: \$250,000</p> <p>3. Watershed Monitoring, Mapping and Modeling: No person, household or business will be eligible to receive direct benefits through this program</p> <p>4. Watershed Policy, Planning and Local Capacity Assistance: No person, household or business will be eligible to receive direct benefits through this program</p>		Round Application	<p>Round 2 is expected to launch in Fall 2022.</p> <p>Round 3 - TBD</p>
Statewide Flood Control Program	LADOTD	<ul style="list-style-type: none">• Must reduce existing flood damages• Does not encourage additional development in flood prone areas• Does not adversely affect upstream or downstream flooding• Must have a construction cost of \$100,000 or more• Must be a stand-alone project	<ul style="list-style-type: none">• Local Governments; Drainage Districts, Levee Boards• Channel Enlargement, Levees, Pump Stations, Relocation of Dwellings & Business Structures, Reservoirs, Other Flood Damage Reduction Measures	<p>Annual Cycle, Competitive process. The program provides up to 90% of the construction cost for non-federal projects and up to 70% of non-federal participants’ share of federal projects. Does not cover any E&D costs</p> <p>"The state’s share of project funding shall be not less than \$90,000. Sponsoring authorities are required to provide a local match equivalent to not less than 10 percent of the project construction cost unless approved for participation in the Rural Grant Opportunity Program as specified in R.S. 38:90.41."</p>	<p>"This program may provide up to 90% of the cost of construction for projects that reduce existing flood damages, do not encourage additional development in flood-prone areas, do not increase upstream or downstream flooding and have a total construction cost of \$100,000 or more."</p> <p>DOT's website does not list specific grant sizes.</p>		Annual Application	<p>Pre-application due May 1st of each year; applications due October 1st</p>

